APPENDIX – D

Appendix – D includes:

- **Appendix D-1**: Entry Behaviour Test
- **Appendix D-2**: Summative Tests
- **Appendix D-3**: ATM Instructional Modules (I – VIII)
  [Each module includes Day-Wise Formative Tests also]
APPENDIX: D-1
ENTRY BEHAVIOUR TEST

[Max. Time: 45 Min.] [Max. Marks: 35]

Name: ___________________ Date: ____________
Roll No: ________________ School: ______________
Class: ________________ Section: ______________

Instructions: a) Attempt all the questions carefully. b) Do not make guess work.
c) Read the directions of each section carefully.

[Section-A] Tick (✓) the correct answer in the following (1 mark each)

1. At which stage does Indian economy at present?
   a. Developed    c. Developing
   b. Under developed  d. Most developed

2. Which is the real index of economic growth?
   a. Per capita income    c. Capital formation
   b. Real per capita Income  d. Domestic Growth

3. Which type of Economic Model has been adopted by India since independence?
   a. Capitalistic    c. Politicalistic
   b. Socialistic     d. Mixed

4. Which is a bigger concept out of the following?
   a. Economic Growth  b. Economic Development

5. How many sectors are there in Indian economy?
   a. Two    c. Four
   b. Three  d. Five

6. At the time of independence (1947), Indian Economy was known as:
   a. Industrialization    c. Agriculturist
   b. Humanistic    d. Constructive

7. Which of the following is the root cause of backwardness of our economy?
   a. Poverty    c. Shortage of food
   b. Overpopulation    d. Lack of resources.

8. ‘There is a huge demand of Indian products in foreign market due to its good quality.’ Tick the most appropriate option.
   a. Highly agree  c. Do not agree
   b. Agree    d. Do not know / No Idea
9. Which sector at present do you think contributed the most in national income?
   a. Primary sector          c. Tertiary sector
   b. Secondary sector        d. All sectors equally

10. Which of the following is the best reflector of all activities in any nation?
    a. Economy as a whole      c. Liberalization
    b. Privatization           d. Globalization

[Section-B] Complete the following statements (1 Mark Each)

11. Most neglected area of rural development is __________________________

12. Bank which is specially meant for industrial growth is__________________

13. Social infrastructure (like schools, colleges and hospitals) is most important
    for the development of present Indian economy? Do you agree? Give one
    reason___________________________________________________________

14. Two main exports of India are __________________________________________

15. Two main imports of India are __________________________________________

[Section-C] Answer the following questions briefly (2 marks each)

   ___________________________________________________________________
       ___________________________________________________________________

17. List various types of loans available to general people by commercial banks.
       ___________________________________________________________________
       ___________________________________________________________________

18. Give two ways to solve the problem of population in India.
       ___________________________________________________________________
       ___________________________________________________________________

19. What is green revolution?
       ___________________________________________________________________
       ___________________________________________________________________

20. Write two products produced by small and cottage industries in India.
       ___________________________________________________________________
       ___________________________________________________________________
Appendices:

[Section-D] True/False. Write (T) for true and ‘F’ for false (1 mark each)

21. Rate of participation of women are more in rural areas as compared to urban areas. □
22. Use of C.N.G. (compressed natural gas) as a fuel is a good effort for sustainable development. □
23. Poverty is the main problem of our Indian economy. □
24. There is growing trend towards privatization of education. □
25. NABARD is a bank meant for industrial growth. □

[Section-E] Do as directed in each question: (2.5 marks each)

26. Classify the following in to conventional and non conventional sources of energy.
   Coal, electricity, solar energy, wind energy and biomass
   • Conventional Sources:
   • Non-Conventional Sources:

27. Classify the following in to exports and imports of India:
   Handicrafts, Machineries, Spices, Chemicals and Jute
   • Exports:
   • Imports:
APPENDIX: D-2

[D-2 (i) to D-2 (viii)]

MODULE-WISE SUMMATIVE TESTS
APPENDIX: D-2 (i)
CRITERION SUMMATIVE TEST
MODULE - I

[Max. Time: 30 min.] [Max. Marks: 30]

Name: ___________________________ Date: ___________________________
Roll No: ___________________________ School: ___________________________
Class: ___________________________ Section: ___________________________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Define Economy ___________________________

2. Name two products which were forcefully produced by the Indians before independence. ___________________________. ___________________________

3. Explain briefly the features of Indian economy at the time of independence with the help of hints given below
   a. Land tenure system ___________________________
   b. Consumer goods ___________________________
   c. Basic industry ___________________________
   d. Illiteracy ___________________________

4. Current Indian Economy shows the production of wheat up to _______ and rice up to _______ whereas at the time of independence\ it was just _______ for wheat and _______ for rice.

5. Interpret the approximate contribution (in %) of the following sectors of economy in to nation income.
   Primary = ___________________________ 
   Secondary = ___________________________
   Tertiary = ___________________________

[Part B] Answer the following short questions briefly in two or three lines in the space provided. (2 marks each)

6. Enlist various ideas assimilated from your peer group about the topic economic growth and development.
7. Write new and real practical knowledge related to Indian economy you have constructed through handout activity.

8. State two points of significance of economic development

9. Distinguish between economic growth and economic development

10. Describe briefly the importance of social welfare in economic development

11. Name two main features of an economy classification.

[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer (1 mark each)

12. Identify the best indicator of economic growth
   a. National income  
   b. Real per capita income  
   c. Per capita income  
   d. Standard of living

13. Choose the broader term out of the following the terms
   a. Economic growth  
   b. Economic Development

[Part D] Do as directed: (3 marks each)

14. Classify the following activities into different sectors of economy.
    Fisheries, construction, trade, mining, banking, agriculture and generating electricity.

15. Match the main activities of various sectors of Indian economy:
    a) Primary Sector   - Services
    b) Secondary Sector - Agriculture
    c) Tertiary Sector  - Manufacturing

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APPENDIX: D-2 (ii)
CRITERION SUMMATIVE TEST
MODULE - II

[Max. Time: 30 min.] [Max. Marks: 35]

Name: ___________________ Date: ______________
Roll No: ___________________ School: ______________
Class: ___________________ Section: ______________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. The main cause of unsustainable economic development is ______________________

2. State the limit of total number of absolutely poor in India ______________________

3. Recall the difference between relative and absolute poverty by completing the following statement:
   Absolute poverty is measured in relation to ______________ whereas relative poverty is measured in relation to ______________

4. Recall the full form of the following poverty alleviation programmes
   a. JPRGY ______________________
   b. SGRY ______________________
   c. USEP ______________________

5. The main motive behind the minimum needs programme is to ______________ and it was launched during _____ five year plans.

[Part B] Answer the following short questions briefly in two or three lines in space provided. (2 marks each)

6. Write any five current challenges facing Indian economy

7. Describe briefly about poor human capital formation.

8. Define poverty

9. Enlist various causes of poverty in India
10. Write two main causes of poverty arises due to poor social institutions.

11. Distinguish between urban self employment programme and urban wage employment programme.

12. Write two main objectives of poverty alleviation programmes

13. Explain the role of agriculture in eradication of poverty.

[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✔) the right answer. (1 mark each)

14. Choose the most dangerous type of unemployment
   a. Seasonal unemployment
   b. Disguised unemployment
   c. Educated unemployment
   d. Industrial unemployment

15. Choose the constituent of poorest infrastructure as an emerging challenge for Indian economy
   a. Health
   b. Social
   c. Welfare
   d. Energy

16. Select the correct option related to the limit of poverty line (in Rs) for rural areas in India.
   a. Rs. 328
   b. Rs. 459

[Part D] Do as directed: (3 marks each)

17. Match the following:

<table>
<thead>
<tr>
<th>Causes of poverty</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Over population</td>
<td>Reflection of poverty</td>
</tr>
<tr>
<td>b. Poor infrastructure</td>
<td>Adds dependency burden</td>
</tr>
<tr>
<td>c. Unemployment</td>
<td>Foundation of growth and development</td>
</tr>
</tbody>
</table>

18. Classify the following poverty alleviation programmes according to urban/rural need:
   - SGSY (Swaranjayanti Gram Swarozgar Yojana)
   - PGY (Pradhanmantri Gramoday Yojana)
   - UWEP (Urban Wage Employment Programme)
   - PMRY (Prime Minister’s Rozgar Yojana)
   - EAS (Employment Assurance Scheme)
APPENDIX: D-2 (iii)
CRITERION SUMMATIVE TEST
MODULE – III

[Max. Time: 30 min.] [Max. Marks: 35]

Name: _______________ Date: _______________
Roll No: _______________ School: _______________
Class: _______________ Section: _______________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Agricultural marketing includes all those activities which help the farmers in getting maximum ______ for his produce. Basically it includes three processes ______, ______ and ______

2. Name one real life example of cooperative agricultural marketing society which deals in India for the upliftment of rural sector ______

3. Quote some examples of animal husbandry under diversification of productive activity ______

4. Name some non-farm activities which are very helpful in providing employment to rural population ______

5. Enlist various sources of rural credit for different time periods ______

6. Organic farming is environment friendly as it discards the use of ______. These fertilizers reach in to the ground water adding ______ to the water.

[Part B] Answer the following short questions briefly in two or three lines only. (2 marks each)

7. Write the meaning of rural development in your own words.

8. Recall objectives of cooperative credit societies in the context of rural development

9. Explain the functions of NABARD (National bank for Agriculture and Rural Development) in the development of rural are

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10. Compare the roles of PDS and MSP policy in rural development (only one main difference)

11. Write the meaning of diversification of crops for the betterment of rural areas

12. Illustrate the various components of horticulture to raise funds in rural areas

13. Justify the use of organic farming by giving two real examples.

14. Criticize the use of inorganic farming by giving demerits of their use with the help of real examples.

**[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer. (1 mark each)**

15. Choose non-institutional source of rural credit:
   - a) Co-operative credit societies
   - b) Landlords
   - c) Regional rural banks
   - d) NABARD

16. Select the best use of warehousing facility from the following uses:
   - a) Storage facility
   - b) Maintains quality of the produce

17. Identify the full form of PDS from the following options:
   - a) Public demand system
   - b) Proper distribution system
   - c) public distribution system
   - d) proper demand schedule

18. Choose the activities which are related to cottage and household industry for generating money and employment in rural areas: (there are two options related to the question)
   - a) Cattle farming
   - b) Doll making
   - c) bee keeping
   - d) flower cultivation

19. Identify the organic input of farming from the following options:
   - a) NPK fertilizers
   - b) Pesticides
   - c) Manure
   - d) insecticides

**[Part D] Do as directed (2 marks)**

20. Underline the lingering challenges in the context of rural development from the given four option
   - a) Rural credit
   - b) Organic farming
   - c) Rural marketing
   - d) Sustainable livelihood

XXX
APPENDIX: D-2 (iv)  
CRITERION SUMMATIVE TEST  
MODULE – IV

[Max. Time: 30 min.] [Max. Marks: 32]
Name: __________________________ Date: __________________________  
Roll No: __________________________ School: __________________________  
Class: __________________________ Section: __________________________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Distinguish between human capital and physical capital by completing the statement: Physical capital refers to the stock of ________, whereas human capital is skills and expertise acquired by ________. The basis of physical capital is ________, whereas human capital is a cause behind ________.

2. Name some methods of increasing labour force __________________________

3. Rising population is serious problem facing human capital formation because __________________________

4. Education means __________________________ and it is very important element in the process of human capital formation because __________________________

5. Name some innovative skills developed during the process of human capital formation __________________________

[Part B] Answer the following short questions briefly in two or three lines only. (2 marks each)


7. Enlist the various sources of human capital formation in India.

8. Illustrate two examples related to brain drain (in the context of India only)

9. Write two main problems facing human capital formation in India.
10. Suggest two ways of developing human capital in the area of agriculture.

11. Write the importance of some special schools like Navodaya Vidyalaya and Kedriya Vidyalaya in the area of human capital formation.

12. Enlist some reasons why education stills a challenging preposition in India.

**[Part C]** Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer. (1 mark each)

13. Choose the best option regarding the type of environmental change which takes place first due to human capital formation:
   a) Emotional environment change  
   b) Material environment change  
   c) Economic environment change

14. Higher productivity of physical capital includes:
   a) Growth of skilled workers  
   b) Growth of assets  
   c) Growth of environment  
   d) Growth of capital

15. Select the main cause of low academic standards in India
   a) More privatization of education sector  
   b) Unscientific educational system  
   c) Lack of fixed standards  
   d) Unskilled teachers

16. Which of the following is not related to the importance and objectives of education in the context of human capital formation?
   a) It produces good citizens  
   b) It helps in economic development of nation  
   c) It expands mental horizons of the skilled workers  
   d) It develops human personality

**[Part D]** Do as directed (2 marks each)

17. Underline the components of human capital in a following list:
   Doctors, Banking services, Livestock, Building, Teachers, Daily wager, Beggar, Engineer, Mother as a house wife, Telecom services.

18. Identify the true statements regarding various types of expenditure incurred by the govt. to increase the efficiency of the skilled workers (T/F)
   a) Expenditure on education  
   b) Expenditure on recreation  
   c) Expenditure on training  
   d) Expenditure on information
APPENDIX: D-2 (v)
CRITERION SUMMATIVE TEST
MODULE – V

[Max. Time: 40 min.] [Max. Marks: 40]

Name: ____________________________ Date: ____________________________
Roll No: ____________________________ School: ____________________________
Class: ____________________________ Section: ____________________________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Main focus of economic infrastructure is to develop ________________ and social infrastructure is to develop ________________

2. Various linkages of production generated by infrastructure are ____________________________

3. Good health implies increase in ________________, ________________ & ________________

4. Mention data related to health services from 1951 to 2006 related to the following:
   • Medical colleges ____________________________
   • Doctors ____________________________
   • Dispensaries and hospitals ____________________________

5. Essential indicators of good health according to the latest survey of statistical outline of India are ____________________________

6. Name some causes of less availability of energy sources in India.
   ____________________________

[Part B] Answer the following short questions briefly in two or three lines in the space provided. (2 marks each)

7. Write the meaning of infrastructure

8. Explain the relationship of infrastructure and economic growth.

9. Distinguish between economic and social infrastructure

10. Describe the meaning of outsourcing and give two examples of outsourcing in the context of Indian infrastructure.

xxxxxxxx
11. Write the importance of infrastructure in inducing F.D.I. (Foreign Direct Investment)

12. Distinguish between conventional and non-conventional sources of energy

13. Suggest some ways and measures to cope with the challenge of power generation in India

14. Enlist two main reasons of making health still as an emerging challenge for Indian economy

[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer. (1 mark each)

15. Choose the main component of economic infrastructure from the following options:
   a) Communication  c) Energy
   b) Transportation  d) Banking

16. Choose the main component of social infrastructure from the following options:
   a) Education  c) Construction
   b) Health  d) Industries

17. Select the main component of agriculture infrastructure in India from the following which are the basis of increase in agriculture productivity:
   a) Permanent means of irrigation  c) Good fertilizers and pesticides
   b) HYV seeds  d) latest technology

18. Select the main component of industrial infrastructure in India from the following which are the basis of increase in industrial productivity:
   a) Transportation  c) Power in the form of energy
   b) Insurance  d) Communication

19. Reject the false statement from the following statements related to infrastructure and investment.
   a) Low investment means low level of infrastructure
   b) Good infrastructure induces investment
   c) Lack of infrastructure leads to low level of investment
   d) M.N.C’s generates good infrastructure due to F.D.I’s

20. Current death rate of India according to economic survey of 2006-07 is:
   a) 25.5  c) 16.8
   b) 7.5  d) 9.8

[Part D] Do as directed: (3 marks each)

21. Identify commercial and non-commercial sources of energy from the following: (write C for commercial and NC for non-commercial)
    Coal, agriculture waste, natural gas, petroleum, firewood, electricity and animal waste

22. Choose primary and final sources of energy from the given list of sources: (write P for primary and F for final source)
    Electricity, natural gas, coal, lignite, petrol, LPG, charcoal, wood and animal waste.
CRITERION SUMMATIVE TEST
MODULE – VI

(Max. Time: 30 min.)
(Max. Marks: 34)

Name: __________________________
Roll No: ________________________
Class: __________________________
Date: __________________________
School: _________________________
Section: _________________________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Quote two examples each of self employment and hired workers from present day life.

2. Labour force means total persons actually ________ whereas labour supply is related to the total persons willing to ________, labour force is ________ to wage rate whereas labour supply is ________ to wage rate.

3. Enlist various types of unemployment of India in the space provided.

4. Disguised unemployment is a situation wherein ______________ whereas educated unemployment occurs mainly due to ______________

5. Enlist various causes of increasing unemployment in India in the space provided.

[Part B] Answer the following short questions briefly in two or three lines in the space provided. (2 marks each)

6. Define employment in two lines.

7. Define unemployment in your own words.

8. Distinguish between casual and regular workers by giving suitable examples.

9. Describe briefly the reason of low percentage of female workers in urban areas.

10. Explain occupational structure of India among the various sectors of economy by giving suitable examples of each sector.
11. Define seasonal unemployment and the main cause behind.

12. Distinguish between under employment and frictional unemployment.

13. State some suggestions to solve the problem of unemployment.

[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer. (1 mark each)

14. Choose the correct formula of calculating rate of unemployment in India from the following options:
   a) No. of persons employed/Size of labour supply x 100
   b) No. of persons unemployed/Size of labour force x 100
   c) No. of persons employed/Size of labour force x 100
   d) No. of persons unemployed/Size of labour supply x 100

15. Select the correct option from the following related to the participation rate of male and female in India.
   a) 50:50
   b) 60:40
   c) 80:20
   d) 70:30

16. Identify the correct distribution of workforce found in urban-rural areas from the following:
   a) 30:70
   b) 40:60
   c) 60:40
   d) 70:30

17. Choose correct overall rate of participation in India from the following:
   a) About 50 %
   b) About 40 %
   c) About 60 %
   d) About 70 %

[Part D] Do as directed: (1/2 mark each)

18. Recognize the correct options related to the economic and social consequences of unemployment in India from the given list of options. [Tick (✓) the options related to economic consequences and mark cross (x) on the options related to social consequences, Left the rest options]

   a) Loss of output
   b) Low quality of life
   c) Decline in capital formation
   d) Class struggle
   e) Joint family system
   f) Non utilization of manpower
   g) Social unrest
   h) Mobility of labour

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APPENDIX: D-2 (vii)
CRITERION SUMMATIVE TEST
MODULE – VII

[Max. Time: 35 min.] [Max. Marks: 39]

Name: ______________________ Date: __________
Roll No: ____________________ School: __________
Class: ______________________ Section: __________

General instructions for the test:
a) Attempt all the questions.
b) Read the directions carefully.
c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Correlate the development of industries with the agricultural development by giving facts and figures

2. Problems of Indian industries are (write any two major problems)

3. Foreign Trade means

4. Main export items of India are

5. State the main item of import that has the maximum share in Indian imports

6. State two main problems of Indian foreign trade

[Part B] Answer the following short questions briefly in two or three lines in the space provided. (2 marks each)

7. Define the meaning of industrial development in your own words.

8. Quote an example which shows improvement in standard of living through industrial development.

9. Write two points of importance of small and cottage industries in Indian context

10. Write some products produced by small and cottage industries in India

11. Write two steps taken by Govt. to develop small scale industries.

12. State some features of foreign trade of India (Any Two)
13. Explain briefly the meaning of import substitution as a measure of Govt. policy.

14. Enlist some measures of Govt. policy to improve or correct the defects of foreign trade.

[Part C] Tick (✓) the right answer (1 mark each)

15. Choose the share of industry and services in GDP according to 2005-06 survey
   a) 26.4%  c) 37.6%
   b) 55.1%  d) 65.8%

16. Choose the correct option related to the bank which plays an important role in industrial development in India by eliminating the problem of capital.
   a) NABARD  c) IDBI
   b) SIDBI  d) ICICI

17. Choose the correct option from the following related to the capital investment limit (in fixed assets) of small scale industries in India.
   a) Rs. One Crore  c) Rs. Three Crore
   b) Rs. Two Crore  d) Rs. Four Crore

18. Select the contribution of small industries (in %) to total industrial production from the following:
   a) 35%  c) 21%
   b) 39%  d) 34%

19. Choose that item of export from the given four options, which contributes the most in Indian exports:
   a) Gems and Jewellery  c) Cotton cloth
   b) Engineering Goods  d) Software and Computers

[Part D] Do as directed (2 marks each)

20. Identify the correct option (True/False) in the following, related to the problem of innovation and research in the area of industrial development.
   a) No improvement in the quality of products.
   b) High cost of production

21. Match the correct statements related to problems of small and cottage industries with their solutions proposed in Govt. policy:

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Problem of raw material</td>
<td>a) More Subsidies</td>
</tr>
<tr>
<td>b) Problem of finance</td>
<td>b) Outsourcing</td>
</tr>
<tr>
<td>c) Old methods of production</td>
<td>c) Co-operative Banks</td>
</tr>
<tr>
<td>d) More taxes</td>
<td>d) District Industries Centre (DIC)</td>
</tr>
</tbody>
</table>

22. Choose some items of imports of India from the given list: (Put tick mark)
   a) Coffee  e) Spices
   b) Wool  f) Petrol
   c) Paper  g) Leather
   d) Tobacco  h) Medicines
APPENDIX: D-2 (viii)
CRITERION SUMMATIVE TEST
MODULE – VIII

[Max. Time: 30 min.] [Max. Marks: 32]

Name: ______________________ Date: __________________
Roll No: ____________________ School: __________________
Class: ______________________ Section: __________________

General instructions for the test: a) Attempt all the questions. b) Read the directions carefully. c) Do not make guess work.

[Part A] Answer the following questions in one word or one line only by completing the statements. (2 marks each)

1. Environment includes all biotic (living) elements such as __________________________ as well as non-biotic (non-living) elements such as __________________________ and other natural resources which make up our surroundings and impact on our quality of life.

2. Ozone depletion means reduction in the __________________________, due to which _______________ radiations reach the earth.

3. Quote two alternatives of the use of wood to control over utilization of wood.
   a) __________________________ b) __________________________

4. Write two points to save our environment
   a) __________________________ b) __________________________

5. State two features of sustainable development
   a) __________________________ b) __________________________

[Part B] Answer the following short questions briefly in two or three lines in the space provided. (2 marks each)

6. Write different types of pollution which pollutes the environment.

7. Suggest two points to control deforestation.

8. Write the meaning of global warming and its effects on environment.

9. Define the meaning of sustainable development.

10. Explain briefly the use of environment friendly sources of energy by giving real life examples.
11. Explain the use of sunlight and organic farming as strategies of sustainable development.

[Part C] Answer the following questions by choosing the best option from the given options. There is only one right answer. Tick (✓) the right answer. (1 mark each)

12. Choose the main reason behind degradation of land.
   a) Soil erosion
   b) Alkalinity and salinity of soil
   c) Water logging
   d) Excessive production of one crop many times

13. Choose the best public means of transport from the given options related to sustainable development.
   a) Trains
   b) More buses
   c) Metros
   d) Auto Rikshaws/ Taxes

14. Select the best option related to the alternative use of sunlight in place of electricity.
   a) Solar cookers
   b) Solar heaters
   c) Solar lighting (street lighting)
   d) Solar inverters

15. Choose the area of dense forest cover in India.
   a) 55% of the total land area
   b) 33% of the total land area
   c) 22% of the total land area
   d) 44% of the total land area

[Part D] Do as directed (2 mark each)

16. Select the true statements from the given statements regarding significance of environment for human life. (There are two true statements and two wrong statements). Tick the true statements.
   a) Environment sustains life
   b) Environment dissimilates waste
   c) Environment enhances quality of life
   d) Environment decreases resources for production

17. Elaborate the statements regarding causes of environment degradation with the hints provided below:
   Hint No. 1: More population
   Hint No. 2: Excessive poverty

18. Recognize the correct option related to the significance of sustainable development from the given two options. (Tick that option)
   a) It accounts for the welfare of future generations
   b) It accounts for the present economic growth and development only
APPENDIX: D-3

[D-3 (i) to D-3 (viii)]

ATM INSTRUCTIONAL MODULES (I - VIII)

[Each module includes Day-Wise Formative Tests also]
APPENDIX: D-3 (i)
INSTRUCTIONAL MODULE: I

Topic: Indian Economic Development

Content Sequence: The module includes the meaning and definitions of economy, Economic growth, and economic development. It includes difference between economic growth and economic development, structure of Indian economy, features of Indian economy. The sub concepts are arranged as follows:

- Meaning and definitions of Economy
- Meaning and definition of economy growth
- Meaning and definition of economic development.
- Difference between economic growth and economic development.
- Introduction of Indian economy
- Structure of Indian economy (All sectors of economy)
- Features of Indian economy at the time of independence

Entry Behaviour: Entry behavior is a set of abilities and skills which are required for the instructions leading to new terminal behavior. Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
  - Have recognition of the shared need to work together.
  - Have an ability to discuss patiently in a group.
  - Have mutual trust and honesty in a group.
  - Have power of influencing others on a right issue.
  - Belongs to grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level to proceed the classroom instructional process smoothly and which will be required for the activities also. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
  - Choose the correct type of economy from the given options
  - Define poverty in their own words
  - Select the real index of economic growth
  - Name the most neglected area of rural development.
  - List objectives of human capital formation
  - Identify the correct economic model of India
  - Recall the functions of various sectors of economy
  - Compare the rate of participation of women in rural India
  - Decide the root cause of backwardness of Indian economy
  - Justify the need of social infrastructure for the present economy
  - Identify the need of sustainable development
Appendices....

- Classify the conventional and non conventional sources of energy
- Name the bank meant for industrial growth
- Name the main exports and imports of India

Focus: Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. The focus of this module has been divided into two parts
  - Primary Objectives
  - Instructional Objectives

Primary Objective: Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will increase the knowledge of economy and various issues related to Indian economy.

Instructional Objectives:
At the end of the instructions, students will have studied the unit thoroughly and will be able to:

- Define economy in their own words through general discussion to enhance inter-personal interaction.
- Identify the correct option from the given set of four options that is the best indicator of economic growth.
- Choose the broader term from the given two terms that clarifies the relation between economic growth and economic development.
- Name the two products which were forcefully produced by the Indians before independence by working collectively in a group situation through participation in a purposively created climate (good & new activity).
- Name two main features of an economy classification by working collectively in a group situation.
- State two points of significance of economic development easily through congenial atmosphere created in good and new activity.
- Distinguish between economic growth and economic development through the game of snowballing in a group situation.
- Describes the importance of social welfare in economic development through the snowballing activity.
- Enlist assimilated ideas about economic development coming from people of diverse personality through snowballing activity in a group situation.
- Classify activities of different sectors of Indian economy through gaming activity.
- Interpret the contribution of various sector of economy to the national income by participation actively in gaming activity.
- Match the main activities of various sectors of economy through participating in gaming activity.
- Explain the important features of Indian economy at the time of independence with the help of hints provided in handouts.
- Complete the Statements relating to comparison of current Indian economy with the one at the time of independence through handout’s activity.
- Construct real and practical knowledge related to Indian economy gathered through handout activity.
Syntax (Module-I)

It refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td></td>
</tr>
<tr>
<td>Day-II</td>
<td>Meaning of economy, economic growth and economic development</td>
<td>Brief lecture, Good &amp; New Activity and general discussion.</td>
</tr>
<tr>
<td>Day-III</td>
<td>Meaning of economy, economic growth, economic development and difference between economic Growth and economic development</td>
<td>Snowballing Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Indian economy and its structure (Sectors of Economy)</td>
<td>Gaming Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Features of Indian economy at the time of independence</td>
<td>Handout’s Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to make final summary of Handout’s activity properly at home.</td>
<td></td>
</tr>
</tbody>
</table>

DAY -I

First day will be devoted for taking pre-test of first module. Investigator will give general introduction about the instructional programme and try to make good rapport with the students.

DAY –II

Second day will be fixed for the topic; Meaning of economy, economic growth and economic development. The strategy for this day will be: Firstly investigator will give a few minutes introduction to the topic through lecture method followed by general discussion in the class. Afterwards good and new activity will be performed.

Content: Economy: It refers to the sum total of economic activities in an area which may be a city, village or country as a whole. It is said to be a system spread over a particular area that reveals a nature and level of diverse economic activities in that area. It includes all economic activities like production, consumption, investment and exchange of goods and services. Indian Economy was agricultural economy at the time of independence but now it is called as an emerging industrial economy due to shifting of agriculture to industrialization.

Economic growth: It means long term increase in income or output. Output will increase due to increase in production, prices remaining contact. It refers to the long term growth of real per-capita income. It means increase in the flow of gods and services in the economy.
Economic Development: It is much broader concept than economic growth. It refers to that process as a result of which, along with increase in real per capita income, there is reduction in inequality, poverty, illiteracy and disease. Thus it includes both economic growth as well as economic welfare.

Activities Involved

Activity: Brief lecture followed by General Discussion

Aim: To give general information of the topic and to develop rapport between investigator and students by interaction.

Environment: A General class room situation.

Equipment: A whiteboard/blackboard to allow discussion points to be jotted down, chalk/markers for the board.

Procedure: Under this activity, the investigator will give a brief lecture of few minutes to introduce the topic and to acquaint students to the related terms of the topic. After a brief lecture a general classroom discussion will be held to know the level of students and to make them acquaint with the correct meaning of the related terms. This type of general discussion will create a congenial atmosphere which will provide freedom to the students to share their ideas and to interact with investigator freely.

Activity: Good and New

Aims: (1) To encourage students to get to know each other and to promote a positive atmosphere at the start of a group. (2) To promote honesty among individuals.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height and the group should remain in a closed circle throughout. The investigator should be part of the circle.

Equipment: No special equipment is required.

SEATING PLAN FOR GOOD & NEW

Procedure: Under this activity, all students will sit in a circular arrangement as shown in above figure. Then each of them will be asked turn by turn to recall and narrate honestly anything good and new happened to them in the last week. The student should begin the statement with a self introduction. Investigator will join in wherever possible. Thus an atmosphere of free exchange of views and 100% participation on the part of each subject will be ensured.
This will be the warm up activity or pace setter for the mood for the interactive social environment which be to follow in the coming days. It will also by the foundation for self awareness among the students as were as making them aware of their peer’s personalities.

**Formative Test-Day II**

1. What do you understand by the term economy?
2. Per capita income is the best indicator of economic growth. True/False.
3. Economic development is broader term than economic growth. True/False.
4. Indian economy was ________________________ at the time of independence.
5. Economy classification is done on the basis of ________________________
6. Economic development is very helpful in creating: (Tick the right option)
   a) Economic growth  
   b) Social welfare  
   c) Equality in income distribution  
   d) All of the above

**DAY-III**

The third day will be kept for the elaboration of the same topic i.e. meaning of economy, economic growth and economic development and further difference between economic growth and economic development will be taught. The strategy for the third day will be: investigator will use **snowballing activity** for the said topic.

**Content:** Economic growth is a narrow concept as compare to economic development eco. Growth is a part of Economic development. The difference between these two terms is as follows:

<table>
<thead>
<tr>
<th>Economic Growth</th>
<th>Economic Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Long term increase in real per-capita income</td>
<td>1. Long term increase in real pre-capita income and economic welfare.</td>
</tr>
<tr>
<td>2. This concept is generally used in relevance to developed economies</td>
<td>2. General used in the context of underdeveloped economies</td>
</tr>
<tr>
<td>4. It doesn’t account for structural, technical and institutional changes in the economy.</td>
<td>4. Lays special emphasis on the structural, technical and institutional changes in the economy.</td>
</tr>
<tr>
<td>5. Narrow concept as it is a part of economic development.</td>
<td>5. Broader concept as it includes both economic growth and Economic welfare.</td>
</tr>
</tbody>
</table>

**Activities involved**

**Activity:** Snowballing

**Aims:** (1) To explore a topic through frequent reformation of pairs. (2) Assimilation of ideas coming from people of diverse personality. (3) To develop mutual understanding.

**Environment:** A large room with of equal heights. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pair activity if required.
Equipment: A whiteboard/blackboard to allow discussion points to be jotted down. (The board should not become a focal point of the session). Chalk/ markers for the board.

**SEATING PLAN FOR SNOWBALLING ACTIVITY**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Students Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ith</td>
<td>2</td>
</tr>
<tr>
<td>IIth</td>
<td>4</td>
</tr>
<tr>
<td>IIIrd</td>
<td>8</td>
</tr>
<tr>
<td>IVth</td>
<td>12</td>
</tr>
<tr>
<td>Vth</td>
<td>24</td>
</tr>
<tr>
<td>VIth</td>
<td>48</td>
</tr>
</tbody>
</table>

Procedure: This activity will relate itself to group discussion moving from the smaller groups to the larger groups as shown in figure. First of all, investigator will make the groups/ Pair. Each pair will explore a topic in depth. Each pair of groping will be given five minutes for discussion. After five minutes, one pair will link up with the next nearest pair to form a group of four. This process will continue until the larger group will be formed. During the process the automatic shift in the choice of leaders of various groups will happen. So ultimately the last two big group’s leaders will present their final conclusions or points of discussion. At the end on investigator will accept the queries and will ask some questions or invite some questions for the same.

**Formative Test-Day III**

1. What is the difference between economic growth and economic development?
2. Social welfare is very important for _______ and _______ in economic development.
3. Which one of the following is fastest in Indian economy?
   a) Economic growth   b) Economic development
4. Name two countries which are fully developed economically.
5. Economic development is generally used in the context of developing economies. True/False.
DAY-IV

Fourth day’s topic will be Indian Economy and its structure with all three sectors of economy. Strategy for the fourth day will be: the initial five minutes will be used to explain briefly the components of all three sectors of the economy. After this gaming activity will be performed.

Content: Indian Economy is basically mixed economy since independence, where major decisions are taken by govt. and private entrepreneurs are also encouraged side by side. Market forces play a significant role in it. At the time or after independence Indian economy was known as agricultural economy. It was also termed as backward economy because various sectors of it do not contribute so much. Contribution of the primary, secondary and tertiary sectors to the country’s national income is as follows:

<table>
<thead>
<tr>
<th>Sector</th>
<th>% Contribution to National Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Sector</td>
<td>58.7%</td>
</tr>
<tr>
<td>Secondary Sector</td>
<td>14.3%</td>
</tr>
<tr>
<td>Tertiary Sector</td>
<td>27%</td>
</tr>
</tbody>
</table>

- Primary sector: it contributed 58.7% share to national income. It is the most significant sector in today’s era as well as it was most prominent sector at the time of independence. It includes many activities such as.
  [Here chart for showing various sectors will be used]

- Secondary sector: It contributed 14.3% to National income. It was least effective or developed at the time of independence. Economists believed that this sector is meant for developed economies only. It includes activities as follows:

- Tertiary Sector: It contribution is It includes highly structure formation of one’s country’s sector. It contributes to the infrastructural growth of country and ultimately leads to the growth and development. It includes transport, storage, communication,
trade, hotel, restaurants, banking & insurance, real estate, public administration and defense etc. Due to the transformation from the primary to the secondary and tertiary sectors, our Indian economy shows economic development.

**Activities Involved**

**Activity:** Gaming

**Aims:** (1) To experience a highly structured form of group discussion. (2) To develop co-operation and mutual concern among individuals. (3) To develop leadership qualities.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height and different groups should remain in separate rows. The trainee should not be part of any group.

**Equipment:** No special equipment is required

**SEATING PLAN FOR GAMING ACTIVITY**

<table>
<thead>
<tr>
<th>Group: A</th>
<th>Group: B</th>
<th>Group: C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMARY SECTOR</td>
<td>SECONDARY SECTOR</td>
<td>TERTIARY SECTOR</td>
</tr>
<tr>
<td>2 rows app. 18 students</td>
<td>2 rows app. 18 students</td>
<td>2 rows app. 18 students</td>
</tr>
</tbody>
</table>

**procedure:** In this activity 15 minutes will be given to three parallel groups which will hold discussion among themselves on three different topics viz. Primary sector will be given to 1st group, Secondary to second and tertiary second will be given to third group. Each group will be allotted a different topic and will be seated as shown in figure. Before the discussion, an investigator will briefly introduce the topic by giving overview about all three sectors and fix parameters of discussion around which students will have to discuss and explore the topic in depth. At the end of discussion, each group leader will present the consensus of the group on the topic following which the investigator will conclude the main differences among three different concepts.

**Formative Test-Day IV**

1. Give two examples of activities each of the three sectors of economy.
   - Primary
   - Secondary
   - Tertiary
Secondary
Tertiary
2. Which of the following sector of our economy has contributed most in the national income?
   a) Primary  b) Secondary  c) Tertiary
3. Which sector of our economy has contributed the most in infrastructural growth in our country?
4. _____ is the most neglecting sector of Indian economy these days.
5. Are various auxiliaries of trade categorized under tertiary sector? True/False.
6. Write briefly about fisheries and mining.

DAY - V

Fifth day will be fixed for the topic: feature of Indian Economy at the time of independence. The strategy for the same will be: **Handouts activity** will be performed with required explanation by the investigator.

**Content:** Indian Economy was backward at the time of independence. Some typical features at the time of independence were:

i) Agriculture-The Principal source of subsistence: It depends upon agriculture mainly.
ii) Inadequate agricultural production: the production of agriculture was very low the following table shows a clear picture of it.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (in lakh tones)</th>
<th>Productivity (K.G. Per Hectare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Wheat</td>
<td>64</td>
</tr>
<tr>
<td>2.</td>
<td>Rice</td>
<td>17</td>
</tr>
</tbody>
</table>

(Source: Indian Economic survey 2008; through internet)

iii) Land tenure system prevails at that time which includes Zamindari system, Mahalwari and Ryotwari Systems. These systems exploited middle man farmers.

iv) Limited commercialization of Agriculture
v) Poor Infrastructure
vi) Infant growth of consumer goods industries
vii) Lack of basis industries like iron and steel industries.

Activities involved

**Activity:** Handout’s

**Aim:** To give more information other than booking knowledge, basically practical knowledge related to real life situations.
Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height and different groups should remain in separate rows. The trainee can intervene wherever required.

Equipment: A white board or black board to allow discussion points to be jotted down chalk and markers for the boards. Handout already prepared for the students.

Seating plan: It should be simple. Students should be seated in small groups of 2-4 students each. No special grouping is required.

Format of Handout

<table>
<thead>
<tr>
<th>Indian Economy at the time of Independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Agriculture - About 72% population depended on agriculture and 56% was the NDP out of it.</td>
</tr>
<tr>
<td>• Low production – The production of main crops i.e. wheat and rice was also at its low level. Wheat : 64 (1947) 701 (2003) Rice : 17 (1947) 965 (2008)</td>
</tr>
<tr>
<td>• Poor infrastructure – Roads, Power generation capacity was only 2100 mw poor raw material etc.</td>
</tr>
<tr>
<td>• Poor growth of consumer goods industries – like just, textile, sugar, math box etc.</td>
</tr>
<tr>
<td>• Poor public facilities – Poor water facilities, Kutch houses, poor hospital facilities leads to high infant mortality rate.</td>
</tr>
<tr>
<td>• Expected life expectancy was just 31 yrs.</td>
</tr>
<tr>
<td>• Only 17% of population was urbanized and rest 83% lived in rural areas.</td>
</tr>
<tr>
<td>• Poor growth of tertiary sector</td>
</tr>
<tr>
<td>Transport : Railway line was stretched to just 33 thousand miles</td>
</tr>
<tr>
<td>Pucca roads : Only 97,500 miles</td>
</tr>
<tr>
<td>Shipping : Capable of total weight of 31 lakh GRT only</td>
</tr>
<tr>
<td>Banking : Just 4115 branches across the country</td>
</tr>
<tr>
<td>Electricity: Only 23 lakh kilowatt was produced and 300 villages were electrified only.</td>
</tr>
</tbody>
</table>

Procedure: Under this activity firstly an investigator will describe are features of Indian economy at the time of independence briefly. Investigator will give overview to make the students acquainted with the content. Afterwards investigator will give handouts containing relevant matter, with concrete facts and figures, real examples and data taken from internet to all the students of the groups. Students will be allowed to discuss all those real facts related to Indian economy at the time of independence in small groups. It will give them practical knowledge; make them acquainted with the real position of economy. Handouts will contain matter which is not available in the books. It will make the topic more interesting. It will broader the mental horizons of the students. Students will be asked to frame a summary of those points of handouts through group discussion. At last investigator will conclude by giving relevant points of summary.

Formative Test-Day V

1. Explain any two features of Indian economy at the time of independence.
2. State two major differences of Indian economy at present and at the time of independence.
3. _____ % of Indian population as lived in urban areas at the time of independence.
4. ____ and ____ were the basic reasons behind the poor growth of agriculture at the time of independence.

5. The expected life expectancy at the time of independence was: (Tick the right option):
   a) 51 years
c) 31 years
   b) 41 years
   d) 61 years

6. Industrialization was the primary source of income at the time of independence.
   True/False

DAY-VI
On sixth day, post-test of first module will be taken. After taking post-test, investigator will conclude the whole topic of the first module briefly in order to revise the important points.

DAY-VII
Seventh day will be devoted to the incubation period for making final summary of handout’s activity at home. Incubation will be required for handout activity for concluding the facts and figures. Students will have to make a summary like project at home regarding various issues of Indian economy at the time of independence using the facts and figures from the handout. Handout will act as a guideline for making final summary. By this students will get to know more insight of the topic. There will no page limit or word limit for the same. Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc.

Social System
It describes the roles of student and teacher and their relationships and the kind of norms that are encouraged. In this module the investigator should act as facilitator of group activities. This module will be characterized by norms of mutuality, trust and openness. The investigator will always try to moderate the external structure by good task sequence. Full freedom to students will be encouraged by investigator in order to make 100 percent participation of students. It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. Classroom environment will be very congenial which encourage the students to participate in their full potential. The social system will all dependent on the social climate generated a willingness to explore one self, a sense of responsibility in assisting others to explore themselves and openness for interaction over issues.

Principle of Reaction
Each model has a few principles of reaction which concerns the teacher. With the help of this, the teacher comes to know how he has to react to the responses / activities of the students. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain in sights in to their own behavior and to develop conceptual tools for describing their behavior. The investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty.
Support System

A model itself is not sufficient in itself. It needs some additional requirements and supporting conditions for its existence. Those additional requirements of the model beyond the usual human skills and capacities and technical facilities are a part of support system. For this model the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate. It includes all the instructional as well as non instructional aids.

➢ Instructional Aids:
  • Hand outs containing internet material on the topic features of Indian economy at the time of Independence.
  • Prepared sheets containing items relating to current challenges facing Indian Economy.
  • i) Chart on the topic agriculture at the time of independence
     ii) Chart on the topic various sector of Indian economy.
  • Flash card showing the formula of economic development.

➢ Other instructional Aids:
  • Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
  • Internet reference / websites for students to make them more exploratory in nature.
  • Business/ economic magazines to make the students aware of the current economic issues and problems.
  • Cuttings of newspaper containing some current knowledge related to the topic.

➢ Non Instructional Aids
  • Trained investigator/ leader who always try to maintain openness and honesty.
  • A large room with chairs of equal height.
  • Small rooms for making different group (if required).
  • White board/ black board with chalk/ markers and duster.
  • Pointer, scale/ ruler etc.

Instructional and Nurturant Effects

Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.

Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the
universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.

➤ **Instructional effects:-**
  - Good knowledge of economy and its various types and sectors.
  - Practical knowledge of Areas of Economic growth and development
  - Rational thinking to distinguish between economy at the time of independence and present economy.
  - Knowledge of current challenges of Indian economy.
  - It will make learners independent in thinking.
  - Self expression.
  - Fluency in communication i.e. communication without barriers.
  - Enhancement of interpersonal skills.
  - Application of knowledge in day to day life.
  - Enhancement of social instructional skills.

➤ **Nurturant Effects:-**
  - Caring for peer group
  - Better understanding of the self, peer group and environment.
  - Development of co-operative attitude.
  - High self concept and self esteem
  - Positive self direction and independence
  - Creativity and curiosity
  - Development of emotions and emotional stability.
  - Development of awareness of self and fulfillment of individual’s potential
  - Make learners more explorative in nature.
APPENDIX: D-3 (ii)
INSTRUCTIONAL MODULE: II

Topic: Current challenges facing Indian economy with special reference to Poverty.

Content Sequence: The module includes the current challenges which are faced by today’s Indian economy. Further it elaborates the one main challenge i.e. poverty in detail. Meaning of poverty, types, causes and various suggestions to remove poverty are the sub topics of main chapter. The sub concepts are arranged as follows:

- Current challenges facing Indian economy
- Meaning of poverty
- Relative and absolute poverty
- Meaning of poverty line
- Causes of poverty in India
- Suggestions for the removal of poverty
- Various other measures taken by the govt. to remove poverty

Entry Behaviour: Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. It describes the behavior the students must have acquired before venturing on the particular new terminal behavior. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
  - Have a willingness to explore one self.
  - Have a sense of responsibility in assisting others to explore themselves.
  - Have an openness for interaction over issues
  - Have a considerateness of one’s own need and other’s need for growth.
  - Belongs to English medium grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level to proceed the classroom instructional process smoothly and which will be required for the activities also. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
  - Define economy in their own words
  - Explain the features of Indian economy at the time of independence
  - Complete the statements related to the comparison of past and present economy
  - Interpret the contribution of various sectors of economy to the economic development
  - Distinguish between economic growth and economic development
  - Describe briefly the importance of social welfare in the development of economy
• Identify the best indicator of economic growth
• Classify various activities into different sectors of economy
• Choose correct option from the given options related to economic growth.

**Focus:** Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

- **Primary Objectives**
- **Instructional Objectives**

**Primary Objectives:** The primary focus of this module will be to increase self-awareness of students. The skill of interaction will be developed through various activities during the delivery of lesson. Further this module will increase the knowledge of current challenges facing Indian economy with special reference to poverty.

**Instructional Objectives:**
At the end of the instructions, students will have studied the unit thoroughly and will be able to:

- Write current challenges facing Indian economy on prepared sheets by group discussion.
- Choose the correct option from given list of four options in prepared sheet, regarding the most dangerous type of unemployment.
- Given paper and pencil (Prepared sheet activity), student shall be able to describe about poor human capital formation.
- Choose the constituents of poor infrastructure as an emerging challenge for Indian economy.
- Complete the statement regarding the cause of unsustainable economic development through the active participation in prepared sheet activity.
- Define poverty in specific sense in their own words through group discussion.
- Recall the difference between relative and absolute poverty by completing the statement through active participation in group discussion.
- Select the correct option from the given two options related to the limit of poverty line in rural areas of India with the help of brief lecture.
- Match the correct causes of poverty with the given reasons to enhance assertive behavior by participating in yes/no activity.
- State the limit of total number of absolutely poor in India through active participation in project work.
- Enlist various causes of poverty in India through active participation in yes/no activity.
- Write two main causes of poverty related to outdated social institution.
- Recall the full form of various poverty alleviation programmes through project activity.
- Complete the statements related to minimum needs programme through general discussion in project work to enhance interpersonal and cognitive skills.
- Classify the various poverty alleviation programmes according to rural/urban needs to be jotted down in project report to enhance inter-personal skills.
• Distinguish between urban self employment programme and urban wage
employment programme with the help of group discussion in project work.
• Write the objectives of poverty alleviation programmes in general by active
participation in project activity.
• Explain the role of agriculture in eradication of poverty.

Syntax (Module-II)

It refers to the description of the model in action. Each model consists of
several phases and activates which have to be arranged in specific sequence quite
unique to a particular model. It gives complete direction to the teacher to proceed. The
syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td>----</td>
</tr>
<tr>
<td>Day-II</td>
<td>Current challenges facing Indian economy</td>
<td>Prepared Sheets Activity</td>
</tr>
<tr>
<td>Day-III</td>
<td>Incubation period to make final summary of Prepared Sheet activity properly in the class.</td>
<td>----</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Meaning, types and causes of poverty</td>
<td>lecture cum discussion followed by Yes/No Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Poverty alleviation programmes</td>
<td>Project Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td>----</td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to make final summary of Project activity properly at home.</td>
<td>----</td>
</tr>
</tbody>
</table>

DAY-I

On first day, pre-test of second module will be taken. Investigator will give
general introduction about the second module.

DAY-II

Second day will be fixed for the topic; Current challenges facing Indian
economy. The strategy for the topic will be prepared sheet activity. Initially topic
will be briefly explained by the investigator. Afterwards prepared sheets activity will
be performed.

Content: Indian Economy is at developing stage in today’s era. Though some areas
are at good stage but ultimately it is ridden from so many problems. The various areas
or drawbacks of today’s economy of are discussed below.

• Poverty: The main problem of lack of development of Indian economy is
poverty. Major portion of Indian is in its domain.
• Rural development: Poor agricultural growth due to lack of proper facilities
like lack of permanent means of irrigation, small holdings, traditional
methods, low income etc are the main drawbacks. Credit and marketing,
agriculture diversification, organic farming etc.
• Human capital formation: how people become resource, role of human capital
in economic development, growth of education sector in India.
Appendices....

- Infrastructure: problem of poor infrastructure in India, problems and policies concerning energy and health.
- Industry: Industrial growth is not significant low productivity, underutilization of resources, poor technology are the main drawbacks behind its growth.
- Foreign trade: Foreign trade is another index of poor economic growth of Indian economy deficit of balance of payment, lack of quality and lack of foreign exchange are the main drawbacks.
- Sustainable economic development: it is one of the main current challenges before Indian economy. Sustainable growth and development is the need of an hour due to excessive exploitation of natural resources.
- Unemployment: The problem of getting employment is again a major cause of backwardness of Indian economy. It is clear from the following pie chart

Flash Card containing pie chart showing the extent of unemployment in various types. (Source: Internet, statistical outline of India 2007-09)

Unemployment is mainly of two types:
1. Urban Unemployment: It comprises of industrial and educated unemployment. Industrial unemployment constituted 20% whereas educated unemployment constituted 35% share.
2. Rural Unemployment: It comprises of disguised and seasonal unemployment. Disguised unemployment constituted 24% whereas seasonal unemployment constituted 20% share.

- Poor infrastructure: Infrastructure related to health, sanitation, welfare, social, and energy is still a challenge for Indian economy.
- Poor human capital is also badly affected; brain drain, privatization and mushrooming of educational institutions are the major problem.
- Unsustainable economic development: the economic development of our economy is not able to sustain over a long period of time due to overutilization of resources.

Activities involved
Activity: Prepared sheets
Aims: (1) To encourage participants to get to know each other (2) to know student’s level of knowledge related to the topic. (3) To develop leadership qualities.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height and a group should remain in a closed circle throughout. The trainee should be part of the circle.

Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board. Prepared sheets for the students.

Seating plan: The seating plan will be in circular form, four groups of approximately 10-15 students will be made.

SEATING PLAN FOR PREPARED SHEET ACTIVITY

Format of Prepared Sheets:

<table>
<thead>
<tr>
<th>PREPARED SHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read through the following items and find out the information with the help of other people in the group by approaching them, one at a time.</td>
</tr>
</tbody>
</table>

Content: As we know that our economy i.e. Indian Economy is at developing stage. There are so many barriers in the progress of economy our economy is facing many challenges which are the root course of its backwardness so discuss those challenges.

Topic: Current challenges facing Indian Economy.

Instructions: Following are the items or challenges to be discussed. Group leader will discuss all items in a group one by one and note down the points / matter related to it in the space provided in the prepared sheets.
Procedure: under prepared sheet activity, four small groups of approximately 10-15 students will make which will be seated in a circular arrangement shown in seating plan. One group leader will be chosen from the group. In the beginning an investigator will give brief introductions of the topic to make them aware of the current challenges of economy. Afterwards, group leaders of the respective groups will be encouraged to discuss the items of the sheets with their groups. Each member of the groups will be encouraged to participate in the discussion an investigator will joins in wherever possible/required. When all the groups will complete their sheets, the group leader will present their final findings. At last, investigator will conclude by using black board or white board.

Formative Test-Day II

1. What are the major challenges facing Indian economy?
2. Various types of unemployment are
3. ________ and ________ are the examples of poor infrastructure in India.
4. Brain drain leads to: (Tick the right option)
   a) More Illiteracy   c) Poor Human Capital
   b) Poor infrastructure  d) More employment opportunities
5. Human capital in India is: (Tick the right option)
   a) Not very efficient   c) No idea
   b) Very efficient  d) Reasonably efficient
6. Main cause of unsustainable development of Indian economy is: (Tick the right option)
   a) Poor growth of resources   c) Lack of proper objectives
   b) Over utilization of resources  d) Over population

DAY-III

Third day will be fixed for the incubation period. It is required for making final report on prepared sheets activity in the class itself. In this report students will have to write about the activity, i.e. what they like most of the activity, what they like least of the activity, is there any benefits from the activity, and any improvement required in the activity. Besides this they will have to write about the content subject matter i.e. current challenges facing Indian economy. They will have to fill the sheet according the items mentioned in it. Investigator will not interfere in the report writing but observe them during their work. He can only guide them when required.
DAY- IV

For the fourth day, meaning, types and causes of poverty will be the selected topic. The strategy for this day will be: firstly an investigator will introduce the topic by giving brief lecture for the meaning and types of poverty. Afterwards, yes/no activity will be performed to teach the topic causes of poverty in India.

Content: Poverty is the inability to fulfill the minimum requirements of life. The minimum requirements include food, clothing, housing, education and health facilities. Poverty is of two types: Relative and absolute. Relative poverty refers to poverty in relation to different classes, regions or countries. Whereas, absolute poverty in India is measured through the poverty line. Poverty line is that line which expresses per capita average monthly expenditure incurred by the people to satisfy their minimum needs. In India, persons who spend Rs. 328 on consumption in rural areas and Rs. 459 in urban areas per month at 1999-2000 prices are treated as those below poverty line.

Causes of poverty: there are many causes of poverty all over the world. But in India the causes are low level of national product, low rate of growth, heavy pressure of population, inflationary pressure, chronic unemployment and underemployment, capital deficiency, paucity of able and efficient entrepreneurs, outdated social institutions, lack of infrastructure, and unequal distribution of income.

Activities involved

Activity: Brief lecture followed by general discussion

Aim: To give general information of the topic: meaning and types of poverty and to develop good rapport by interaction in order to enhance social skills.

Environment: A General class room situation.

Equipment: A white board or black board to allow discussion points to be jotted down. Chalks or markers for the board.

Procedure: Under this activity, the investigator will give a brief lecture of few minutes to introduce the topic and to acquaint students to the related terms of the topic. After a brief lecture a general classroom discussion will be held to know the level of students and to make them acquaint with the correct meaning of the related terms. This type of general discussion will create a congenial atmosphere which will provide freedom to the students to share their idea and to interact with investigator freely. Investigator will write down the main points of conclusions drawn from the general discussion related to the topic.

Activity: Yes/No

Aims: i) To explore the topic (causes of poverty) with proper reasons. ii) To explore aspects of assertive behavior.

Environment: A General class room situation.

Equipment: No special equipment is required.

Procedure: People often have difficulty in saying ‘no’. This activity allows for a light hearted exploration of the problem. In this activity an investigator will narrate the various causes of poverty in India (from the list of more than 20 causes) one by one to whole class and students (one by one) will be allowed to confirm about that reason in yes or no only. Students will have to confirm whether that reason prevails in Indian situation or not with reason also. In this way all the causes of poverty will be
discussed with concrete reasons. Thus opportunities to assert him/her will be provided in saying ‘no’ to others with proper reasons.

**Formative Test-Day IV**
1. Poverty means ____________
2. _______ and _______ are the limits of poverty line (in Rs.) in rural and urban areas in India.
3. Main cause of poverty in India is __________________________
4. Point out one difference between relative and absolute poverty.
5. Outdated social institutions would lead to poverty due to: (Tick the right option)
   a) Large joint families   c) Laws of succession
   b) Caste System   d) All of these

**DAY-V**

The fifth day will be kept for the topic poverty alleviation programmes. The strategy for this day will be: investigator will use project activity for this topic.

**Content:** There are many measures to control poverty or to eradicate poverty form India. Some are general measures and some are specific programmes undertaken by the Govt. General Measures are speeding up the pace of economic growth, reducing inequality of income. Reduction in growth rate of population and control on unemployment and price rise, specific measures are undertaken by some committees of Govt. these are also known as poverty alleviation programmes. These are:

- SGSY (Swaranjayanti Gram Swarozgar Yojana)
- SGRY (Sampoorna Gramin Rozgar Yojana)
- PGY (Pradhanmantri Gramoday Yojana)
- JPRGY (Jai Prakash Rozgar Guarantee Yojana)
- SJSRY (Swaran Jayanti Shahri Rozgar Yojana)
- USEP (Urban Self-Employment Programme)
- UWEP (Urban Wage Employment Programme)
- PMRY (Prime Minister’s Rozgar Yojana)
- EAS (Employment Assurance Scheme)
- MNP (Minimum Needs Programme)
- TPP (Twenty Point Programme)

**Activities involved**

**Activity:** Project

**Aims:** i) To motivate the students to do quality work. (ii) To develop inter-personal skills and mutual concern towards others.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height and different groups should remain in separate rows. The investigator should not be part of any group.

**Equipment:** No special equipment is required.
Appendices....

SEATING PLAN FOR PROJECT ACTIVITY

Format of Project: Each group will have to submit a project according the following format

<table>
<thead>
<tr>
<th>Group Code:</th>
<th>States covered till date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Leader’s Name:</td>
<td>Main focus of plans:</td>
</tr>
<tr>
<td>Group Members’ names:</td>
<td>Expenditure incurred till date:</td>
</tr>
<tr>
<td>Sources covered:</td>
<td>Chairman/Head of each plan:</td>
</tr>
<tr>
<td>Date of implementation of plans:</td>
<td>Tenure of the plans:</td>
</tr>
<tr>
<td>Funding of plans:</td>
<td>Objectives achieved till date:</td>
</tr>
<tr>
<td>Central to State funding ratio (if any):</td>
<td>Failure of Plans (if any):</td>
</tr>
</tbody>
</table>

Procedure: Under this activity, the students will be divided in to three equal groups. All groups will be required to prepare a project report on the chosen topic and for this they will be given one day incubation period also. Investigator will provide the students with a list of reference material including books, library documents, newspapers, magazines and internet websites from where they will be able to get good real material on all these poverty alleviation programmes. Students will have to work in groups and make one joint project report with the efforts of all the group members. They For this they will suppose to choose one group leader also. Investigator will just watch them and assist them wherever required.

Formative Test-Day V

1. Write the full forms of the following:
   PMRY
   EAS
2. ____________ was the the basic motive of Indian Govt. behind launching minimum need programme.
3. The main objective of urban self employment programme is
4. Which poverty alleviation programme specially meant for rural growth?
   (Select the correct option)
   a) SJSRY   b) UWEP   c) TPT   d) PGY
5. All the poverty alleviation programmes achieved success. True/False
6. Agriculture plays a significant role in removing poverty in India. True/False
DAY-VI

On sixth day, post-test of second module will be taken. After taking post-test, investigator will conclude the whole topic of the module briefly in order to revise the important points.

DAY-VII

Seventh day will be used for the incubation period for making final summary of project activity at home. Incubation will be required for project activity for concluding the facts and figures. Students will have to make a summary like project at home regarding various poverty alleviation programmes. There will be no page limit or word limit for the same. Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc. Home tasks like this will be very helpful in assuring hundred percent participation of the students in the activities.

Social System

Social system describes the roles of teacher and student and their interrelationships with in the classroom and outside it. It also describes the kind of norms that are encouraged and student behavior which are rewarded. For this module the social system will all dependent on the social climate that is generated to develop willingness to explore oneself, sense of responsibility in assisting others to explore themselves and an openness for interaction over issues. It will develop skills to explore norms of mutuality, trust and openness. It is required for the investigator to know the learners mental level which will be required for the activities. It will enable the investigator to explore the willingness on the part of learner to take active participation. Classroom environment will be very congenial which encourage the students to participate in their full potential. The social system of this module will demand from the teacher to place responsibility of identifying and verifying the concepts on students.

Principle of Reaction

It tells about the nature of interaction between the teacher and taught. Each model has a few principles of reaction which concerns the teacher. With the help of this, the teacher comes to know how he has to react to the responses/activities of the students. For this module, the investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one’s feelings and reactions. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain in sights in to their own behavior and to develop conceptual tools for describing their behavior.

Support System

This component is used to describe the supporting conditions necessary to attain the goals of the model. It describes what additional equipment or what agencies in addition to the school will throw more light on the subject.

For this module the teacher who will be characterized by personal openness and who has the requisite interpersonal and intrapersonal skills will be best component of the support system of this model. The leader needs access to or familiarity with a
variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate.

It includes all the instructional as well as non instructional aids.

- **Instructional Aids:**
  - Flash card showing pie chart on the topic types of unemployment with their share in total unemployment.
  - Hand outs containing internet material (web sites, and other relevant material) on current status of poverty in India.
  - Chart on various poverty alleviation programmes.
  - Outline/Format for the project summary

- **Other Instructional Aids:**
  - Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
  - Internet reference / websites for students to make them more exploratory in nature.
  - Business/ economic magazines to make the students aware of the current economic issues and problems.
  - Cuttings of newspaper containing some current knowledge related to the topic.

- **Non Instructional Aids:**
  - Trained investigator/ leader who always try to maintain openness and honesty.
  - A large room with chairs of equal height.
  - Small rooms for making different group (if required).
  - White board/ black board with chalk/ markers and duster.
  - Pointer, scale/ ruler etc.

**Instructional and Nurturant Effects**

The description of the effects of models can validly be categorized as the direct or instructional effects and the indirect as nurturant effects. The instructional effects are those directly achieved by leading the learner in certain directions. The nurturant effects come from experiencing the environment created by the model. The awareness trainer will not avoid direct instructions deliberately, but he will use training devices that will extremely non directive. It will encounter open up to the students the possibility of development, but they will not lead them precisely toward pre determined goals. The student will grow as he can in directions greatly determined by his readiness and his wishes.

- **Instructional effects:-**
  - Knowledge of current challenges facing Indian economy.
  - Practical knowledge of problems of our economy and its solution by joint efforts.
  - Proper knowledge of poverty and its root causes with the measures to solve this problem.
• Rational thinking to distinguish between types of poverty and efforts of govt. to eradicate this problem by various programmes.
• It will make learners independent in thinking.
• Self expression will be developed.
• Fluency in communication i.e. communication without barriers.
• Enhancement of inter-personal skills.
• Application of knowledge in day to day life.
• Enhancement of social skills.
• Enhancement in self awareness skills.

➢ **Nurturant Effects:-**
  • Development of co-operative attitude.
  • High self concept and self esteem
  • Caring for peer group
  • Better understanding of the self, peer group and environment.
  • Positive self direction and independence
  • Development of awareness of self and fulfillment of Individual’s potential
  • Make learners more explorative by nature.
  • Creativity and curiosity
  • Development of emotional balance.
APPENDIX: D-3 (iii)
INSTRUCTIONAL MODULE: III

Topic: Rural Development

Content Sequence: The module includes meaning of rural development in the context of rural credit, agricultural marketing, diversification of agriculture and organic farming. The sub concepts are arranged as follows:

- Concept or rural development
- Lingering and emerging challenges in the context of rural development
- Meaning and sources of rural credit
- Concept of rural banking
- Meaning of agricultural marketing
- Diversification of crop production
- Diversification of productive activity
- Organic farming and sustainable development

Entry Behaviour: Entry behavior describes the behavior the students must have acquired before venturing on the particular new terminal behavior. It refers to specific and observable performance related to the present status of the student knowledge and skill in reference to a future status, the teacher wants him to attain. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
  - Have mutual trust and honesty in a group.
  - Have power of influencing others on a right issue
  - Have a willingness to explore one self.
  - Have a sense of responsibility in assisting others to explore themselves.
  - Belongs to English medium grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
  - Write current challenges facing Indian economy
  - Define poor human capital formation
  - Define poverty
  - Enlist various causes of poverty
  - Explain the role of agriculture in eradication of poverty
  - Write objectives of poverty alleviation programmes
  - Recall the difference between relative and absolute poverty
  - Choose the most dangerous type of unemployment
  - Classify the various poverty alleviation programmes in to rural and urban
  - Complete the statement regarding number of absolute poor in nation
  - Recall the full form of USEP and JPRGY

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Focus: Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

- **Primary Objectives**
- **Instructional Objectives**

**Primary Objective:** Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will increase the knowledge of lingering and emerging challenges of rural development in India.

**Instructional Objectives:** At the end of the instructions, students will have studied the unit thoroughly and will be able to:

- Write the meaning of rural development in their own words after brief lecture.
- Underline the lingering challenges in the context of rural development in India through group discussion
- Enlist various sources of rural credit for short, medium and long term by using open questions activity to enhance inter-personal skills.
- Choose non-institutional sources of rural credit from the given list of sources
- Recall objectives of cooperative credit societies in the context of rural development through open questions activity.
- Explain the functions of NABARD in the development of rural areas through discussion held in open questions activity
- Complete the statement regarding the meaning of agricultural marketing through purposively created climate for proper structuring of group discussion
- Compare the roles of PDS and MSP policy in rural development through structuring activity to enhance social skills
- Select the best use of warehousing facility from the given two options
- Identify the full form of PDS from the given four options
- Name one real life example of cooperative agricultural marketing society which deals in India for the upliftment of rural sector
- Write the meaning of diversification of crops for the betterment of rural areas through brainstorming
- Quote some examples of animal husbandry under diversification of productive activity in order to enhance cognitive skill through active participation in brainstorming
- Name some non-farm activities which are very helpful in providing employment to rural population.
- Illustrate the various components of horticulture to raise funds in rural areas
- Choose the activities which are related to cottage and household industry for generating money and employment in rural areas.
- Justify the use of organic farming by seeing the demonstrated products.
- Criticize the use of inorganic farming by giving demerits of their use with the help of real examples.
- Complete the statement related to the environment friendly nature of organic farming.
• Identify the organic inputs of farming from the given list of inputs to generate awareness about the products used in India.

Syntax (Module-III)

It refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of third module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test and meaning of rural development</td>
<td>Brief lecture cum discussion</td>
</tr>
<tr>
<td>Day-II</td>
<td>Rural credit</td>
<td>Open Questions Activity</td>
</tr>
<tr>
<td>Day-III</td>
<td>Agricultural marketing</td>
<td>Structuring Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Diversification of agriculture</td>
<td>Brainstorming Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Organic farming</td>
<td>Demonstration Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to make final summary in the form of project</td>
<td></td>
</tr>
</tbody>
</table>

**DAY-I**

First day will be fixed for taking pre-test and for giving brief introduction on the topic meaning of rural development. The strategy for this day will be: firstly investigator will brief lecture on the topic rural development. Afterwards general discussion on the said topic will be carried on in the general classroom situations.

**Content:** Rural development means an action plan for the social and economic upliftment of the rural areas. The action plan is to focus on lingering and emerging challenges in rural areas. Lingering challenges, like the challenge of rural credit, and rural marketing. Emerging challenges, like the challenge of organic farming, and developing options of sustainable livelihood, other than farming.

**Activities Involved**

**Activity:** Brief lecture followed by General Discussion

**Aims:** To give general information about the topic and to develop good rapport between investigator and students through interaction.

**Environment:** A General class room situation.

**Equipment:** A whiteboard/blackboard to allow discussion points to be jotted down, chalk/markers for the board.

**Procedure:** Under this activity, the investigator will give a brief lecture of few minutes to introduce the topic and to acquaint students to the related terms of the topic. After a brief lecture a general classroom discussion will be held to know the level of students and to make them acquaint with the correct meaning of the related terms. This type of general discussion will create a congenial atmosphere which will
provide freedom to the students to share their idea and to interact with investigator freely.

**DAY-II**

The second day will be kept for the topic rural credit. It includes the meaning and various sources of rural credit. The strategy for this day will be: investigator will use **open questions activity** for the clarification of said topic.

**Content:** Rural credit means credit for the rural families. Credit works as a lifeline for the farming families in rural India because of two main reasons. Firstly most farming families are small and marginal holders. Secondly, gestation period between crop sowing and crop sale is fairly long. Rural credit is available for short, medium or long term basis according to the needs of the farmers. Short term credit is basically for the purchase of seeds, pesticides etc. Medium term is for the purchase of machinery and long term is for the purchase of additional land. There are many sources of rural credit. These are:

- **Non institutional sources:** this includes landlords, village traders and money lenders. In this farmers are exploited by paying huge interest and extra security. Moreover this is not for long term credit. They met merely the immediate cash requirements of the farmers.

- **Institutional sources:** this includes government, cooperatives, commercial banks and regional rural banks. Cooperative credit societies provide adequate credit at very reasonable rate of interest. Currently cooperative account for 30% share in the flow of agricultural credit. State bank of India is the best example in commercial banks category which works in this direction very well. NABARD (National Bank for Agriculture and Rural Development) is an apex institution in the field of rural credit. Its main functions are to promote rural developmental activities, to coordinate the rural financing activities, to make measures towards good credit delivery system.

**Activity Involved**

**Activity:** Open Questions

**Aims:** i) To explore the use of open questions. ii) To develop inter-personal skills.

**Environment:** A large room with of equal heights. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pair activity if required.

**SEATING PLAN FOR OPEN QUESTIONS ACTIVITY** (showing one group)
Appendices....

Equipment: A whiteboard/blackboard to allow discussion points to be jotted down, (The board should not become a focal point of the session). Chalk/ markers for the board.

Procedure: Under this activity, only open questions will be used. Open questions are those that cannot be answered with ‘yes’ or ‘no’. Nor do they usually have a single word answer. Open questions usually start with the words how, when, why, what or who. Firstly investigator will introduce the main topic in about five minutes. Afterwards an activity in a pair of two students each will be allowed for five minutes. After five minutes four such pairs will be reconvened to make a group of eight students each as shown in seating plan above. About five or six such groups will be finally drawn out form the whole class. For this activity, the group pairs off. One member of each pair will ask open questions of the other related to the topic and listens to the answers. This process will continue for about five minutes, and then roles will be reversed. Afterwards investigator will invite the group to reconvene. Then, the discussion will be held about the content. Two facets will be discussed: the process of the activity and the content. An investigator will join the different groups wherever possible. At last investigator will sum up by writing some points on the board or by dictating some points to be remember.

Formative Test-Day II

1. Rural development include development of ___________ and ___________.
2. Major lingering challenge in the context of rural development is ___________.
3. The main aim of establishing co-operative societies is ___________.
4. Landlords are the non-institutional source of rural credit. True/False
5. The source of rural credit for short term is: (Tick the right option)
   a) Rural banks  c) Commercial banks
   b) Cooperative societies  d) Money lenders
6. NABARD is: (Tick the right option)
   a) National Bank for Rural Development
   b) National Bank for Regional Development
   c) National Bank for Agriculture and Rural Development
   d) National Bank for Agriculture and Regional Development

DAY-III

Topic for the third day will be agricultural marketing. Meaning of agricultural marketing and various measures taken by the govt. to improve the market system will be undertaken. The strategy for this day will be: structuring activity will be performed to clear the concept of agricultural marketing.

Content: Agricultural marketing does not simply refer to the farmers’ act of bringing their produce to the market for sale. It includes all those activities/processes which help him getting maximum price for his product. These processes are gathering the product after harvesting, processing the product, grading the product according to the quality, packing the product according to the customer need and storing the produce for future sale. Our govt. had taken many steps in this regard to improve the agricultural market system. Various measures are regulated markets, cooperative marketing societies, provision of warehouses, subsidized transport, dissemination of information, MSP policy and PDS system. Among these MSP (Minimum support price) is very famous. In this farmers are given some assured price for their produce. PDS (Public distribution system) provides fair price shops at subsidized rates for the
poorer sections of the society. Indirectly it also helps the farmers to sell their produce without any wastage.

[Here investigator will use a chart showing subsidized rates for various items covered under PDS system]

## FORMAT OF A CHART

**On an average every month, the following commodities are being distributed through Public Distribution System in every State:**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>1,91,700 MTs</td>
</tr>
<tr>
<td>Wheat</td>
<td>13,000 MTs</td>
</tr>
<tr>
<td>Sugar</td>
<td>28,267 MTs</td>
</tr>
<tr>
<td>Edible Oils</td>
<td>6,750 MTs</td>
</tr>
<tr>
<td>Kerosene</td>
<td>72,788 Kls</td>
</tr>
</tbody>
</table>

**Subsidized rates of general consumer items are:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redgram Dal</td>
<td>Rs. 28.00 per Kg.</td>
</tr>
<tr>
<td>Tamarind</td>
<td>Rs. 29.00 per Kg.</td>
</tr>
<tr>
<td>Chillies</td>
<td>Rs. 29.00 per Kg.</td>
</tr>
<tr>
<td>Sunflower Oil</td>
<td>Rs. 35.00 per litre sachet</td>
</tr>
<tr>
<td>Groundnut Oil</td>
<td>Rs. 43.00 per litre sachet</td>
</tr>
<tr>
<td>Onions</td>
<td>Rs. 5.50 per Kg.</td>
</tr>
<tr>
<td>Palmolein Oil</td>
<td>Rs. 26.00 per litre sachet/K.G. Loose</td>
</tr>
</tbody>
</table>

### Activities Involved

**Activity:** Structuring

**Aims:** (i) To explore the structuring dimensions of group facilitation. (ii) To develop social skills and value concern for others.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height and the group should remain in a closed circle throughout. The investigator should be part of the circle.

**Equipment:** A whiteboard/blackboard to allow discussion points to be jotted down, (The board should not become a focal point of the session). Chalk or markers for the board. Chart on current PDS system in India.

**Procedure:** In this activity firstly investigator will give brief introduction of the topic and secondly two groups of twenty five students each will be made. One person is either elected or volunteers to lead the group. That person then leads a discussion on the related topic with the group paying close attention to the structure of the dimension, for instance: time taken to complete the discussion, the amount of time that each person speaks for, the frequency with which certain people speak, the flow of the discussion and tendency of wandering off the topic. In this activity the group leader will have to obtain balance on these issues. In this way he/she will facilitate the group structure so that it will work smoothly. Investigator will join the activity wherever possible. After the discussion will finish, the volunteer will be invited to give feedback of his group on their performance. At last investigator will give full summary in short by showing his chart related to current PDS system in India.
Formative Test-Day III

1. Agricultural marketing refers to the farmers’ act of bringing their produce to the market for sale. True/False

2. The main role of MSP policy in the context of rural development is ________________________________

3. Write the full form of
   a) PDS
   b) MSP ________________________________

4. Why warehouses are required? (write any one use)

5. The co-operative agricultural society which operates in India is: (Tick the right option)
   a) Tansilk
   b) Verka
   c) IFFCO
   d) Landmark

DAY-IV

Fourth day’s topic will be diversification of agriculture. It has two aspects: diversification of crop production and diversification of productive activity. The strategy of this day will be: the initial five minutes will be used to explain briefly the components of the topic. After this brainstorming activity will be performed.

Content: Diversification is an emerging challenge in the context of rural development. Diversification of crops means production of a diverse variety of crops rather than one specialized crop. It means shift from single-cropping system to multi-cropping system. Diversification of productive activity implies a shift from crop farming to non crop farming areas of productive activity with a view to raising income. Various non-farm areas of employment for the rural population are:

- Animal Husbandry
- Fisheries
- Horticulture
- Cottage and household industry

Animal husbandry includes livestock farming i.e. poultry, cattle etc. poultry accounts for 42%, cattle 25% and goats/sheep nearly 20% share in total livestock in India. Operation flood was a result of this only. Fishery is the most popular in coastal areas in India. Horticulture includes fruits, vegetables and flowers production. India records second largest production of fruits and vegetables in the world. Spinning, weaving, dyeing, bleaching, soap manufacturing, doll making, mushroom cultivation and bee keeping are the major activities fall under the cottage and household industry in India. These all non-farm areas will lead to sustainable living in the rural areas.

Activity Involved

Activity: Brainstorming

Aims: i) To encourage the generation of ideas about the topic. b) To develop cognitive skills.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height.

Equipment: A whiteboard/blackboard to allow discussion points to be jotted down. Chalks or markers for the board. Flash cards showing various non-farm activities.

Procedure: In this activity, an investigator will first give a brief introduction of the topic. Then he will start his brainstorming activity. He will raise as many questions as
he can from the given list of questions prepared beforehand. The whole class will be
treated as one group and all the students will be encouraged to participate by giving
small gifts as a mean of motivational efforts. Investigator will give situational based
questions related to the topic in order to clear the concept in detail and to create
interest also. He will write the main conclusions or points on the board
simultaneously. For this he will use various pictures in the form of flash cards to
create interest. At last the final summary of the topic will be narrated by the
investigator.

Formative Test-Day IV

1. What do you understand by diversification of crops?
2. Non-farm activities like _________ and ___________ are very helpful in
providing employment in rural areas in India.
3. Horticulture includes cultivation of ___________ , __________ and
4. Which of the following activities is not undertaken under cottage and small
scale household business in rural areas: (Tick the right option)
   a) Doll making  c) Bee keeping
   b) Soap manufacturing  d) Paper printing
5. Animal husbandry includes: (Tick the right option)
   a) Bee keeping  c) Only b
   b) Poultry farming  d) Both a and b
6. India records third largest production of fruits and vegetables in the world.
   True/False

DAY-V

Fifth day will be fixed for the topic meaning of organic farming, its relation
with sustainable development and the importance of organic farming. The strategy for
this day will: investigator will use demonstration activity with explanation to clear
the concept.

Content: Organic farming is basically a system of farming that relies upon the use of
organic inputs for cultivation. Organic inputs basically include animal manures and
composts. It discards the use of chemical inputs like chemical fertilizers, insecticides,
and pesticides. This system helps in making farming a long period sustainable system
along with an eco-friendly environment. The organic farming has very much
importance as it discards the use of non-renewable resources, it is environment
friendly, sustains soil fertility, provides healthier and tastier food and it is inexpensive
technology for small and marginal farmers.

Activity Involved

Activity: Demonstration

Aims: i) To impart real and permanent knowledge. ii) To develop thinking and
reasoning power.

Environment: A large room in which people can sit comfortably in a group. Chairs
should be of equal height.

Equipment: A whiteboard/blackboard to allow discussion points to be jotted down.
Chalks or markers for the board. Some real objects related to the topic.
Procedure: In this activity, firstly an investigator will give brief lecture of about five minutes. Afterwards he will show some real objects related to the topic organic farming for example some pesticides, chemical fertilizers, synthetic fertilizers, and petroleum based products etc. basically which will be related to non organic farming. Afterwards he will show some organic products for example natural gobar manure and compost. It will give them real knowledge about the topic. After this investigator will show some products of conventional farming and some of organic farming. Students will be asked to discuss in small groups for about five minutes on these products and then give their views on it. Investigator will give good explanation wherever necessary to clear the topic. He will give information about the harmful effects of on organic farming. At last students will be allowed to ask anything related to their doubts.

Formative Test-Day V

1. What is organic farming?
2. Organic farming is eco-friendly. True/False
3. Give two examples each of the following:
   a) Organic inputs of farming
   b) Inorganic inputs of farming
4. Organic farming is very advantageous than conventional farming because:
   (Tick the right option)
   a) It is environment friendly
   b) It incurs less cost
   c) It provide tasty and healthy food
   d) It encourages the use of non-renewable resources
5. The term ‘Operation Flood’ is associated with: (Tick the right option)
   a) Water       c) Petrol
   b) Milk        d) Fruit Juice

DAY-VI
Post-test will be administered on sixth day. After taking post-test, investigator will conclude the whole topic of module briefly in order to put emphasis on relevant points.

DAY-VII
Seventh day will be fixed for incubation period. In this incubation students will have to prepare a project type summary for the whole topic rural development at home. They will have to write about the credit facility in rural areas, marketing, diversification of agriculture and organic farming. By this they will come to know more about the topic. Best student will be awarded by the investigator. There will no page limit or word limit for the same. Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc.

Social System
A social system deals with the relationships between the teacher and the taught. The interactive roles between the two are important. In this module social system will be regarded as moderately structured. Although, most of the activities will be supervised by the teacher, yet the student will quite free to initiate and discuss the problems, pass on value judgment and taking decisions and then follow the suitable course. Ample freedom will be given to the students for carrying out their own
thinking. Ultimately social system for this module will turn out to be a considerateness of one’s own need for growth and others’ need for growth and above all a recognition of the shared need for men to work together to improve their possibilities as individuals and in groups. The system, as a whole, will provide smooth interaction between teacher and the students for a co-operative sharing of the teaching and learning.

**Principle of Reaction**

While using the model how should a teacher regard and respond to the activities of the student is a concern of this element. These responses should be quite appropriate and selective. It provides the teacher with particular and unique rules of thumb by which to ‘tune in’ to the student and selected appropriate response to what the student does. For this module, the investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain insights in to their own behavior and to develop conceptual tools for describing their behavior. The investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one’s feelings and reactions.

**Support System**

Each model has a support system that contributed towards the success of the model. It generates proper environment for it. The model functions in such a way that it goes on generating climate which supports it further and makes it function better and better.

For this model the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate. The teacher who will be characterized by personal openness and who has the requisite interpersonal and intrapersonal skills will be best component of the support system of this model.

It includes all the instructional as well as non instructional aids.

- **Instructional Aids:**
  - Chart on current PDS system in India.
  - Hand outs containing internet material on various regional rural banks to assist students in exploration of the topic in detail.
  - Specimen of bank document related to loan criteria for various time periods.
  - Flash cards showing various non-farm activities.
  - Economics text book by NCERT.

- **Other instructional Aids:**
  - Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
  - Internet reference / websites for students to make them more exploratory in nature.
• Business/ economic magazines to make the students aware of the current economic issues and problems.
• Cuttings of newspaper containing some current knowledge related to the topic.
• Real objects related to organic and inorganic inputs of farming.

➢ Non Instructional Aids:
• Trained investigator/ leader who always try to maintain openness and honesty.
• A large room with chairs of equal height.
• Small rooms for making different group (if required).
• White board/ black board with chalk/ markers and duster.
• Pointer, scale/ ruler etc.

### Instructional and Nurturant Effects

Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.

Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.

➢ Instructional effects:-
• Knowledge of pace of rural development in India.
• Rational thinking related to the use of organic farming in the current times.
• Practical knowledge related to the diversification of agriculture to raise more funds.
• It will make learners independent in thinking.
• Generation of power Self expression.
• Enhancement of self-awareness skill.
• Development of social and facilitation skills.
• Fluency in communication i.e. communication without barriers.
• Enhancement of interpersonal skills.
• Application of knowledge in day to day life.

➢ Nurturant Effects:-
• Development of awareness of self and fulfillment of individual’s potential
• Better understanding of the self, peer group and environment.
• Make learners more explorative by nature.
• Creativity and curiosity
• Development of emotions.
• Development of co-operation.
• High self concept and self esteem
• Caring for peer group
• Positive self direction and independence
APPENDIX: D-3 (iv)
INSTRUCTIONAL MODULE: IV

Topic: Human Capital Formation

Content Sequence: The module includes concept of human capital and its formation in India, sources of human capital formation, its importance in economic development and various problems in the development of human resource in India. The sub concepts are arranged as follows:

- Concept of human capital
- Process of human capital formation
- Sources of human capital formation
- Role of human capital in Indian economic growth
- Problems facing human capital formation in India
- Education as an essential element of human resource development
- Various types of education for the development of human capital
- Education still a challenging proposition

Entry Behaviour: Entry behavior is a set of abilities and skills which are required for the instructions leading to new terminal behavior. Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. This consists of two operations:

- **Assumptions about the learners**: It is assumed by the investigator that the learners:
  - Have an openness for interaction over issues
  - Have a considerateness of one’s own and other’s need for growth.
  - Have recognition of the shared need to work together.
  - Have an ability to discuss patiently in a group.
  - Belongs to English medium grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

- **Pre-requisite skills**: It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. So, before instruction, the students are expected to:
  - Define Indian economy
  - Write about the importance of rural development
  - Quote the importance of human resource for the development of economy
  - Recall the objectives of rural banks for Indian economic development
  - Explain the role of fair price shops for rural areas
  - Illustrate the various components of horticulture
  - Justify the use of organic farming in rural areas
  - Choose the non-institutional sources of rural credit from the given list
  - Select the best use of warehousing facility in this regard
• Know the situation of Indian economic development and its human capital formation
• Compare the traditional methods with latest one for the development of rural areas

Focus: Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

➢ Primary Objectives
➢ Instructional Objectives

➢ Primary Objectives: The primary focus of this module will be to increase self awareness of students. Awareness Training Model is specially designed to help people realize themselves more fully. The skill of interaction will be developed through various activities during the delivery of lesson. Further this module will increase the knowledge of human capital formation and its importance for the development of economy.

➢ Instructional Objectives: At the end of the instructions, students will have studied the unit thoroughly and will be able to:
• Define human capital formation through the climate purposively created in fishbowl activity.
• Distinguish between human capital and physical capital by completing the statement through group activity.
• Underline the components of human capital in a given statement by listening carefully and patiently in silent pair activity.
• Enlist the various sources of human capital formation in India through active participation in class activity.
• Identify the true statements from the given list of four statements, regarding various types of expenditure incurred by the govt. to increase the efficiency of the skilled workers.
• Choose the role of human capital formation regarding environmental change from the given list of options by taking active initiative in silent gazing activity.
• Select the best option from the given four options regarding higher productivity of physical capital.
• Name some innovative skills developed during the process of human capital formation by listening silently and thinking independently in silent gazing activity.
• Name some methods of increasing labour force through group discussion.
• Complete the statement in a worksheet regarding rising population as a problem facing human capital formation in India.
• Illustrate two examples related to brain drain through active participation in worksheet activity.
• Write two main problems facing human capital formation in India by listening carefully and observing analytically in a class.
• Select the main cause of low academic standards in India from the given list of four options.
• Suggest two ways of developing human capital in the area of agriculture by discussing in pairs.
• Fill up the blank spaces regarding the meaning of education and its importance in human capital formation after participating in summarizing activity.
• Choose the correct option from the given set of four options which is not related to the importance and objectives of education in the context of human capital formation.
• Write the importance of some special schools like Navodaya Vidyalaya and Kedriya Vidyalaya in the area of human capital formation through education.
• Enlist some reasons why education stills a challenging proposition in India; and suggestions to create good human resource through active participation in summarizing activity.

**Syntax (Module-IV)**

It refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td></td>
</tr>
<tr>
<td>Day-II</td>
<td>Concept of human capital and human capital formation, sources of human capital formation</td>
<td>Brief lecture followed by Fishbowl Activity</td>
</tr>
<tr>
<td>Day-III</td>
<td>Role of human capital in economic growth</td>
<td>Silent-Gazing Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Problems facing human capital formation in India</td>
<td>Worksheet Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Education as an essential element of human resource development</td>
<td>Summarizing Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to make final summary of the whole unit in the form of project</td>
<td></td>
</tr>
</tbody>
</table>

**DAY- I**

First day will be devoted for taking pre-test of first module. Investigator will give general introduction about the instructional programme and try to make good rapport with the students.

**DAY-II**

Second day will be fixed for the topic concept of human capital and its formation, sources of human capital formation. The strategy for the topic will be brief lecture followed by fishbowl activity. Initially topic will be briefly explained by the investigator. Afterwards fishbowl activity will be performed.

**Content:** Human capital refers to the sock of 'skill and expertise' of a nation at a point of time. It is sum total of engineers, doctors, professors and skilled workers of all types who are engaged in the process of production. Human capital formation is the process of acquiring and increasing the number of persons who have the skill, education and expertise which are essential for the economic and political
development of a country. There are many sources of human capital formation. Some of them are discussed as under:

- Expenditure on education: it is most important source of human capital formation. People do cost and benefit analysis of their expenditure on education. Most families spent handsome amount on education, even when they have to raise loans.
- Expenditure on health: it makes a man more efficient and therefore more productive. A healthy man can makes country’s GDP at top.
- On the job training: it helps the workers to get specialized skills. It makes them more efficient and enhances their productivity.
- Study programmes for adults: other than formal education in formal set up, some institutions provides study programmes for adults which help them to acquire proficiency in their work areas.
- Migration: people often migrate from rural to urban areas in search of better job opportunity. It uses inactive skills of the people.
- Expenditure on information: information relating to job markets and educational institutions offering specialized skills is an important beginning to the acquisition of skill and its appropriate utilization.

[Here investigator will use a flash card in pictorial form on sources of HCF]

**SOURCES OF HUMAN CAPITAL FORMATION**

<table>
<thead>
<tr>
<th>Information</th>
<th>Education</th>
<th>Migration</th>
<th>Training</th>
<th>Study Programmes</th>
<th>Health</th>
</tr>
</thead>
</table>

**Activity involved**

**Activity:** Fishbowl

**Aims:** (1) To experience a highly structured form of group discussion (2) To develop social skills and skill of listening and observation. (3) To promote freedom.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height and a group should remain in a closed circle throughout. The trainee should be part of the circle.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

**Procedure:** Under this activity, two circles of chairs will be set, one smaller within another larger circle (As shown in seating plan of this activity). Initially five people will sit in the inner circle and the rest will sit in the outer. The trainer will also sit in the inner circle. A discussion on the topic concept and sources of human capital formation will be carried on among the people sitting in inner circle. Three rules must apply to the conduct of the discussion. 1) at all times, there must be one empty chair in the inner circle. 2) in order to speak, a person must be sitting in the inner circle. 3)
Appendices....
a person in the inner circle may leave it to sit in the outer circle at any time during the discussion. In this way, there is a fairly frequent coming and going between the two circles. Participants have to exercise judgement about when to leave and join the discussion. They can also switch between being active participants and observers. After the activity will over, the investigator will conclude the topic and jotted down some important points of discussion on the board.

SEATING PLAN FOR FISHBOWL ACTIVITY

Formative Test-Day II
1. What is the main difference between physical capital and human capital?
2. The major components of human capital are _______ and ________
3. Which of the following is not a source of human capital formation in India: (Tick one option)
   a) Migration  c) Information  b) Education  d) Training
4. Govt. spends a huge sum of money for human capital formation in India. True/False
5. Human capital is concerned with quantity of humans in the nation. True/False

DAY-III
Third day will be fixed for the topic role of human capital in economic growth. The interdependence of human capital and economic growth will be discussed thoroughly. The strategy for this day will be silent gazing activity.

Content: Human capital formation is directly related to the economic growth of India. Following points highlight the role and importance of human capital in the context of economic growth:

- Change in emotional and material environment of growth: as people tend to acquire growth oriented attitude and aspirations after getting knowledge of education and skills, emotional environment will automatically be created.
- Higher productivity of physical capital: a large number of engineers and skilled workers can certainly handle the machines and other productive assets in a better way. So it enhances productivity as well as growth of an economy.
- Innovative skills: human capital formation facilitates the use of innovative skills in all the areas to promote production and overall growth.
- Higher rate of participation and equality: by enhancing productive capacities of the labor force, human capital formation increases the rate of participation.

lxxxi
Activity involved

Activity: Silent Gazing
Aims: (1) To develop social skills and skill of patient listening and observation.
Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pairs activity if required.
Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board. Prepared handouts where necessary.
Procedure: Under this activity, the group will sit in silence. Students will have to listen only to the investigator. Investigator will explain the topic in very interesting manner with the help of examples and real life situations. He will use handouts for giving new and relevant information during the explanation. During the explanation, participants will not be allowed to ask queries, they will supposed to note down the main points and their doubts and will be allowed to ask those only in the particular given break of five minutes. This break of five minutes will be given twice. After the explanation will over, all participants will be asked to make summary of the explanation in short in their own words. Investigator will collect all the papers and will assess it properly.

Formative Test-Day III

1. Human capital formation will bring change in ________ environment. (emotional/material)
2. Human capital is a part of __________________________
3. Higher productivity of physical capital means production of material outputs only. T/F
4. What type of innovative skills can be developed through human capital formation? Give one example.
5. What is the rate of participation of Indian labour force:
   a) 30 %  b) 44 %  c) 51 %  d) 42 %

DAY-IV

Topic for the fourth day will be problems facing human capital formation in India. Knowledge economy interrelation with the economic growth will be the concern of the topic. The strategy for the day will be worksheet activity.

Content: India recognizes the significance of human capital formation in the context of economic growth of the country. Indeed, India is fast transforming itself in to a knowledge economy. Yet there are some problems facing human capital formation. These are discussed below:

- Insufficient manpower planning leads to frustration and discontentment due to low standard of living.
- Insufficient on the job training especially in the field of agriculture leads to less capital formation due to lack of proper education and technology to the farmers.
- A low academic standard is the main problem now days. Many private institutions and universities have opened without proper standards. These are just to earn more money.
Rising population reduces per head availability of the existing facilities like sanitation, employment, housing etc.

Brain drain is again very serious problem. Migration of persons born, educated, trained in India to develop countries lower the human capital formation of India.

Activity Involved

**Activity:** Worksheet activity

**Aims:** 1) To develop thinking power and habit of hard work. 2) To make them having concern for others.

**Environment:** A General class room situation.

**Equipment:** A whiteboard/blackboard to allow discussion points to be jotted down, chalk/markers for the board.

**FORMAT OF WORKSHEET**

Read the information carefully and write your views on given points in the space provided.

**Main Content:** Problems in the path of human capital formation are to be eliminated for the economic growth. These problems are concerning our quality of life, capital formation, and growth and development. Now, you will have to think about the problems in this regard. Why our human resource is so backward? What are the reasons for this? Think and write in the space provided. For your reference some hints are there which help you in this process.

**Topic:** Problems facing human capital formation in India

**General Instructions:** There is no time limit. Think rationally and write your ideas in the space provided. There are two column, one each for each member of the pair.

<table>
<thead>
<tr>
<th>Items</th>
<th>Member 1</th>
<th>Member 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wastage of resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population explosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor education system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of proper planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other in your mind</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

lxxxiii
Appendices....

Procedure: In this activity, pairs of two students each will be drafted. Afterwards investigator will give overview of the topic to make them acquaint about the topic. Then they will have to think in pair and write points on given worksheets about the topic. In this activity the main concern will be to give due importance to the views and ideas of other member of pair. For this purpose two separate column are designed in worksheet, each for different member of the pair. After the activity over, investigator will ask them all to make proper summary from the ideas of both members of the pair. At last investigator will also conclude the topic properly by explaining important facts of the topic.

Formative Test-Day IV
1. Rising population is a serious threat to human capital formation. True/False
2. What is brain drain? Give any one example.
3. The major problem behind the poor human capital formation in India is
4. Major cause behind the low academic standards in India is: (Tick any one)
   a) Opening of more educational institutions
   b) Lack of skilled teachers
   c) More freedom to students
   d) Lack of proper books and notes
5. We can develop human capital in the area of agriculture by: (Tick any one)
   a) Providing good quality of seeds
   b) Providing sufficient training
   c) Providing better manures and fertilizers
   d) Providing latest technology

DAY-V
Topic for the fourth day will be education as an essential element of human resource development. Importance and objectives of education and growth of education sector in India will be the major concern of this day. The strategy for this day will be summarizing activity.

Content: Education implies the process of teaching, training and learning especially in schools or colleges, to improve knowledge and develop skills. Education works as an important element in human resource development as it produces good citizens, develops scientific temper and attitude, expands mental horizons, economic development through greater rate of participation, promotes cultural standard of the citizens and develops human personality. The comparison of growth of general education sector in India is well depicted through a chart given below:

- Education is still a challenging preposition due to some reasons. These are:
  - large number of illiterates are still binding in the domains if India,
  - inadequate vocationalisation,
  - gender biasness,
  - low rural access level,
  - privatization, and
  - low govt. expenditure on education.

[Here a chart will be shown to clear the comparison of growth of general education sector in India]
### FORMAT OF A CHART

<table>
<thead>
<tr>
<th>Item</th>
<th>1950-51</th>
<th>2006-07</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and Middle schools</td>
<td>2.23 lakh</td>
<td>13.08 lakh</td>
</tr>
<tr>
<td>Secondary school</td>
<td>7.4 thousand</td>
<td>152 thousand</td>
</tr>
<tr>
<td>Colleges</td>
<td>578</td>
<td>13,578</td>
</tr>
<tr>
<td>Universities</td>
<td>27</td>
<td>407</td>
</tr>
<tr>
<td><strong>No. of Students:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and Middle</td>
<td>19.15 lakh</td>
<td>1,770 lakh</td>
</tr>
<tr>
<td>High schools</td>
<td>150 lakh</td>
<td>371 lakh</td>
</tr>
<tr>
<td>Universities</td>
<td>3.6 lakh</td>
<td>113.4 lakh</td>
</tr>
</tbody>
</table>

(Source: Statistical Outline of India, 2007-09 and Economic Survey 2007-08)

### Activity involved

**Activity:** Summarizing

**Aims:** (1) To practice the skill of summarizing what the other is said. (2) To develop the inter-personal skills.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height. Enough space to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pairs activity if required.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

**Procedure:** In this activity, after the brief explanation of investigator the students will have to discuss in pairs and summarize the whole topic in project form. Summary should be in written form and complete in itself. They will be given forty five minutes for this activity. Member of each pair should participate fully. Before starting an activity, participants will be given five minute for raising questions, or asking any doubt regarding the matter. Extra material will be given by the investigator by writing on the board. In this activity, their skill of organization and summarization will be tested. Personal values like concern for the others and working harmoniously will also be developed.

### Formative Test-Day V

1. How education is an important tool of developing human capital formation? Give your views.
2. Main objectives of education for Indian development are: ________________
3. Kendriya Vidyalayas are basically meant for ____________ persons.
4. Education is still a challenging preposition in developing human capital in India. T/F
5. The movement ‘Education for All’ was started under the: (Tick any one)
   a) Women education campaign
   b) Total education campaign
   c) Total literacy campaign
   d) Adult education campaign
Appendices....

DAY-VI

On sixth day, post-test will be taken. After taking post-test, investigator will conclude the whole topic of module briefly in order to revise the important points.

DAY-VII

On seventh day there will be no teaching and no activity will be performed. It will be used for an incubation period. In this students will have to make a project on the whole topic in the form of summary at their homes. They will have to write about the human capital formation, its sources, its benefits and problems. There will no page limit or word limit for the same. Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc. By this activity students will get more knowledge of the topic and interest will be developed in the subject.

Social System

It describes the roles of student and teacher and their relationships and the kind of norms that are encouraged. In this module the investigator should act as facilitator of group activities. This module will be characterized by norms of mutuality, trust and openness. The investigator will always try to moderate the external structure by good task sequence. Full freedom to students will be encouraged by investigator in order to make 100 percent participation of students. It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. Classroom environment will be very congenial which encourage the students to participate in their full potential. The social system will all dependent on the social climate generated a willingness to explore one self, a sense of responsibility in assisting others to explore themselves and an openness for interaction over issues.

Principle of Reaction

It tells about the nature of interaction between the teacher and taught. Each model has a few principles of reaction which concerns the teacher. With the help of this, the teacher comes to know how he has to react to the responses/activities of the students. For this module, the investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members' acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one's feelings and reactions. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain in sights in to their own behavior and to develop conceptual tools for describing their behavior.

Support System

Each model has a support system that contributed towards the success of the model. It generates proper environment for it. The model functions in such a way that it goes on generating climate which supports it further and makes it function better and better.

For this model the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and
affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate. The teacher who will be characterized by personal openness and who has the requisite interpersonal and intrapersonal skills will be best component of the support system of this model. It includes all the instructional as well as non instructional aids.

**Instructional Aids:**
- i) Chart showing growth of education sector in India.
- ii) Chart on the topic problems facing human capital formation
- Flash card on the topic sources of human capital formation
- Worksheet containing items to be discussed on the topic problems facing human capital formation in India
- Handouts on the topic role of human capital in economic growth.

**Other instructional Aids:**
- Business/ economic magazines to make the students aware of the current economic issues and problems.
- Cuttings of newspaper containing some current knowledge related to the topic.
- Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
- Internet reference / websites for students to make them more exploratory in nature.

**Non Instructional Aids:**
- Trained investigator/ leader who always try to maintain openness and honesty.
- A large room with chairs of equal height.
- Small rooms for making different group (if required).
- White board/ black board with chalk/ markers and duster.
- Pointer, scale/ ruler etc.

### Instructional and Nurturant Effects

The description of the effects of models can validly be categorized as the direct or instructional effects and the indirect as nurturant effects. The instructional effects are those directly achieved by leading the learner in certain directions. The nurturant effects come from experiencing the environment created by the model.

The awareness trainer will not avoid direct instructions deliberately, but he will use training devices that will extremely non directive. It will encounter open up to the students the possibility of development, but they will not lead them precisely toward pre determined goals. The student will grow as he can in directions greatly determined but his readiness and his wishes.

**Instructional effects:-**
- Knowledge of the concepts of human capital and its formation
- Various sources of human capital formation.
- Problems facing human capital formation in India.
- Role of education in the formation of human resources capital
• It will make learners independent in thinking.
• Development of self expression.
• Fluency in communication i.e. communication without barriers.
• Enhancement of interpersonal skills
• Enhancement in facilitation and social skills.
• Fluency in communication i.e. communication without barriers.

➢ Nurturant Effects:-
• Caring for peer group
• Better understanding of the self, peer group and environment.
• Development of co-operative attitude.
• High self concept and self esteem
• Positive self direction and independence
• Promotes creativity and curiosity
• Development of emotional stability
• Development of awareness of self and fulfillment of individual’s potential
• Make learners more explorative in nature.
APPENDIX: D-3 (v)
INSTRUCTIONAL MODULE: V

Topic: Infrastructure

Content Sequence: The module includes meaning and concept of infrastructure, types of infrastructure, its relationship with economic development, the state of infrastructure in India with special reference to energy and health, emerging challenges in power generation. The sub concepts are arranged as follows:

- Concept of infrastructure
- Economic and social infrastructure
- Infrastructure and economic development
- State of infrastructure in India
- Conventional and non conventional sources of energy
- Emerging challenges in power generation
- Meaning of good health
- Health as an emerging challenge

Entry Behaviour: Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. It describes the behavior the students must have acquired before venturing on the particular new terminal behavior. This consists of two operations:

- **Assumptions about the learners:** It is assumed by the investigator that the learners:
  - Have an ability to discuss patiently in a group.
  - Have a willingness to explore one self.
  - Have recognition of the shared need to work together.
  - Have a sense of responsibility in assisting others to explore themselves.
  - Belongs to grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

- **Pre-requisite skills:** It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
  - Define economic growth
  - Explain the importance of electricity for economic development
  - Enlist the basic necessities for life including health
  - Describe the meaning of human capital formation
  - Write the importance of human capital formation for the economic growth of India
  - Recall the various types of expenditures incurred by Indian government for the development of Indian economy
  - Name some methods of increasing labour force in India
  - Correlate the effect of rising population on the growth of infrastructure of India
• Write about the brain drain as a major cause behind poor infrastructure and economic growth
• Choose the importance of education for the good human resource capital
• Mention some importance of special schools for the development of Indian economy

Focus: Focus is the central aspect of a teaching model. It describes the goals and objectives of the model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

➢ Primary Objectives
➢ Instructional Objectives

➢ Primary Objectives: Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will increase the knowledge of the present situation of infrastructure in India.

➢ Instructional Objectives: At the end of the instructions, students will have studied the unit thoroughly and will be able to:
  • Write the meaning of infrastructure by actively participating in the rogerian listening activity.
  • Explain the relationship of infrastructure and economic growth.
  • Distinguish between economic and social infrastructure by actively participating in the classroom activities.
  • Choose the main components of economic infrastructure from the given list of components.
  • Choose the main components of social infrastructure from the given list of components.
  • Complete the statement regarding the main focus of economic and social infrastructure.
  • Select the main components of infrastructure from the given list of components related to agriculture which are the basis of increase in productivity.
  • Select the main components of infrastructure from the given list of components related to industry which are the basis of increase in productivity.
  • Reject the false statement from the list of four statements related to infrastructure and investment.
  • Complete the statement regarding various linkages of production generated by infrastructure.
  • Describe the meaning of outsourcing and some examples of outsourcing in the context of Indian infrastructure.
  • Write the importance of infrastructure in inducing F.D.I. (Foreign Direct Investment)
  • Identify commercial and non-commercial sources of energy from the given list of sources through actively participating in probe activity.
  • Distinguish between conventional and non-conventional sources of energy by group discussion held in the classroom.
• Choose primary and final sources of energy from the given list of sources.
• Name some causes of less availability of energy sources in India.
• Suggest some ways and measures to cope with the challenge of power generation in India with the help of purposively created climate in probes activity.
• Complete the statement regarding the meaning of health through active participation in congruent body language activity.
• Mention data related to health services from 1951 to 2006 through actively participating in the class room discussion.
• Choose current death rate from the given four options according to economic survey of 2006-07.
• Write essential indicators of good health according to the latest survey of statistical outline of India.
• Enlist four main reasons of making health still as an emerging challenge for Indian economy.

Syntax (Module-V)

Syntax refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td>---</td>
</tr>
<tr>
<td>Day-II</td>
<td>Concept and types of infrastructure</td>
<td>Rogerian Listening Activity</td>
</tr>
<tr>
<td>Day-III</td>
<td>Infrastructure and economic development</td>
<td>No-Chairperson Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>State of Economic infrastructure in India-Energy</td>
<td>Using Probes Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>State of Social infrastructure in India-Health</td>
<td>Congruent Body Language Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td>---</td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to make project on the topic: how to cope with the challenge of power generation.</td>
<td>Project Activity</td>
</tr>
</tbody>
</table>

**DAY-I**

On first day, pre-test will be taken. Investigator will give brief introduction about the module’s activities and content.

**DAY-II**

Second day will be kept for the topic concept and types of infrastructure. Economic and social infrastructure will be the main concern of the day. The strategy for this day will be **rogerian activity**.
Content: Infrastructure refers to such core elements of economic and social change which serve as a support system to all production activities in the economy. Good infrastructure is a key to growth and development of economy. Infrastructure is broadly classified in two categories i.e. economic and social. Economic and social infrastructures are complimentary to each other. Economic infrastructure offers us greater reserves of energy, better means of transport and communications, whereas social infrastructure offers us better buildings for the use of society, good schools and colleges, well equipped hospitals and nursing homes etc. both are very important for the growth and development of Indian economy. Brief description of these is as follows: [Here investigator will use chart to show different examples of infrastructure]

Activity involved

Activity: Rogerian Listening

Aims: (1) To enhance self-control by patient listening and social skills in a group context. (2) To develop a personal value of systematization of work.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height and a group should remain in a closed circle throughout. The trainee should be part of the circle. Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

Procedure: In this activity the investigator will encourage the group discussion on the said topic. The only rule for the discussion will be that each participant will only speak when he/she will have successfully summarized what the previous speaker has said. Thus, the first speaker in the discussion will have complete freedom to speak but afterwards each speaker must offer a short summary of previous and then add his own views on that topic. By this activity students will be alert in whole discussion and listening skills will be developed. Moreover facilitation skills will also developed by assisting the views or criticizing the views of previous speaker.

Formative Test-Day II

1. Infrastructure of a country includes 
2. Infrastructure is of two types; and 
3. Good infrastructure generates economic growth. True/False 
4. The main component of social infrastructure is: (Tick one option)
   a) Energy c) Health
   b) Water d) Electricity
5. The main objective of economic infrastructure is: (Tick one option)
   a) Social welfare c) Generation of power
   b) Economic stability d) Economic Growth

DAY-III

Third day will be kept for the topic Infrastructure and economic development. Good infrastructure is a tool of economic development and vice versa will be the concern of the day. The strategy for this day will be no chairperson activity.

Content: infrastructure is a support system for production activity in the economy. The contribution of good infrastructure in the process of growth and development is very important. It is discussed below:
- Infrastructure raises productivity
- Infrastructure induces investment
- Infrastructure generates linkages in production
- Infrastructure enhances size of the market
- Infrastructure enhances ability to work
- Infrastructure facilitates outsourcing
- Infrastructure induces FDI (Foreign Direct Investment)

Good infrastructure includes better ways of irrigation which are very important for increased production. It includes better facilities and amenities which ultimately induces more investment in the economy. Availability of better means of transport and communication generates environment of inter-industrial linkages. Good educational institutions, health care centers and similar other facilities promote skills formation, and therefore ability to work better and more. A country which has good infrastructure emerges as a centre for outsourcing.

Activity involved

Activity: No Chairperson
Aims: (1) To experience a leader-less group. (2) To develop personal values of responsiveness, freedom, self discipline and control. (3) To develop facilitation and social skills in a group.
Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height and a group should remain in a closed circle throughout. The trainee should be part of the circle. Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.
Procedure: In this activity, the investigator will make two large groups initially and points out that a discussion will take place but he will neither chair nor facilitate it. He will note that it will start and finish at a particular time and then leave the group to fend for itself. Topic for the day will be infrastructure and economic development. How good infrastructure is a boon for economic growth and development, students will be allowed to make as much groups as they want. They will be allowed to discuss themselves as they want. The group has to find ways of coping with the organization of the discussion, without help from the investigator. This activity particularly useful for exploring the role of the trainer or chairperson in a group setting. It also helps to identify and illustrate the group dynamics that can occur. By this activity students will find themselves their indiscipline in a group and how to control it. They will
themselves try to avoid all unwanted circumstances. The personal value of self reliance will be developed through this activity.

**SEATING PLAN FOR NO-CHAIRPERSON ACTIVITY**

Several small groups will be formed themselves as investigator will not interfere in this activity at all.

◄—► Shows haphazard talk between group members

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**Formative Test-Day III**

1. Ample sources of energy are responsible for good industrial growth. T/F
2. What are the various linkages of production generated by infrastructure? Name them.
3. Outsourcing means ____________________________________________________________
4. F.D.I. means: (Tick the right option)
   a) Foreign demand income c) Fixed direct income
   b) Foreign direct investment d) Fixed direct investment
5. Infrastructure induces: (Tick the right option)
   a) Tourism c) Foreign Exchange
   b) Investment d) Growth

---

**DAY-IV**

Topic for the fourth day will be state of economic infrastructure in India particularly in reference to energy. Types of energy i.e. commercial and non commercial and Sources of energy i.e. conventional and non conventional will be the main concern of the day. The strategy for this day will be using probes activity.

**Content:** The energy is an important component of economic infrastructure, whereas health is an important component of social infrastructure. Industrial production is not possible without proper energy. Even agriculture needs energy to run tube wells, tractors and thrashers. In today’s world energy in the form of gases, petrol, Diesel, electricity etc. is very important for the day to day operations. Energy is broadly classified in two major categories, commercial and non-commercial. Non commercial includes firewood, animal waste, agricultural waste etc. which are available in rural areas used mainly in domestic purposes. Whereas commercial type includes coal, petroleum products, natural gas, electricity etc. is mainly used for commercial purposes in the factories and farms. [Here investigator will show some real products related to commercial and non-commercial forms of energy]

xciv
Sources of energy are limited whereas its use is unlimited. The major sources are classified in two broad categories. One is conventional source which is known to us and popularly in use since a very long time. Examples are coal, petroleum, natural gas, electricity etc. non-conventional sources are those which have been discovered or explored only in the recent past and which are yet to gain popularity for their use. The examples are solar energy, wind energy, biomass, geothermal energy, and energy through tides and waves.

**Activity involved**

**Activity:** Using probes

**Aims:** (1) To explore probing statements in a conversation to develop inter-personal skills. (2) To develop a personal value of satisfying others and responsiveness.

**Environment:** A large room with chairs of equal height. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pairs activity if required.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board. Prepared handouts if necessary.

**Procedure:** In this activity the group pairs off first and one of them will act as a counselor and other as a client. The client will talk to the counselor for ten minutes, about the topic mentioned above, while the counselor listens and will be allows to use occasional probes. Probing statements and questions are those statements that encourage the person to develop a theme or to say more. Through this activity, life skill of self expression and personal value of satisfying others will be developed. After ten minutes the roles will reversed. At last the investigator will invite the groups to reconvene. Then, a discussion will be held about the whole topic in detail. Investigator will conclude the activity by giving main facts and details of the topic.

**Formative Test-Day IV**

1. Animal and agricultural wastes are non-commercial sources of energy. 
True/False

2. Write one difference between conventional and non-conventional sources of energy.

3. Primary sources of energy are those which______________ and 
Final sources of energy include those which______________

4. The main cause of shortage of energy in India is: (Tick one option) 
   a) Less resources  c) Wastage 
   b) Inadequate capacity of producers  d) Poor Techniques
5. Power shortage in India can be best solved by: (Tick one option)
   a) More import of latest techniques
   b) Encourage privatization
   c) Proper use of available resources
   d) Use of non-conventional sources

6. Biomass is the source of producing energy through:
   a) Cow-dung  b) Sunshine  c) Plants  d) Wind

**DAY-V**

Fifth day will be reserved for the topic state of social infrastructure in India with special reference to the main component of social infrastructure i.e. health. With the meaning of good health and how health is a challenge for Indian economy will be the main concern of the day. The strategy for the day will be **congruent body language activity** followed by group discussion in general.

**Content:** Health is a state of complete physical, mental, and social well being. It does not simply mean absence of disease; rather it means a sound physical and mental state of the individual. A person’s ability to work depends largely on his health. Good health includes the following points for the nation:
- Increase in overall efficiency to handle difficult tasks.
- Increase in productivity of labour.
- Increase in mental abilities.

The health conditions of our nation was developed tremendously since independence. The following points show the large scale improvement of health conditions.
- Decline in death rate from 27.4 per thousand in 1951 to 7.5 per thousand in 2006
- Reduction in infant mortality rate from 146 per thousand in 1951 to 57 per thousand in 2006
- Rise in expectancy in life from 50 years in 1951 to 65.4 years in 2006
- Control over deadly diseases like T.B., Cholera, and Smallpox
- Reduction in child mortality rate from 57 per thousand in 1951 to 17.3 in 2006

[Here an investigator will show a chart on the topic expansion of health services]

**FORMAT OF CHART**

<table>
<thead>
<tr>
<th>Item</th>
<th>1951</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical colleges</td>
<td>28</td>
<td>268</td>
</tr>
<tr>
<td>2. Dispensaries and hospitals</td>
<td>9209</td>
<td>32158</td>
</tr>
<tr>
<td>3. Community health centres</td>
<td>725</td>
<td>171608</td>
</tr>
<tr>
<td>4. No. of beds in hospitals ( Pvt. &amp; public) per 10,000 population</td>
<td>3.2</td>
<td>9.5</td>
</tr>
<tr>
<td>5. Doctors</td>
<td>61840</td>
<td>660801</td>
</tr>
<tr>
<td>6. Nurses</td>
<td>18054</td>
<td>1481270</td>
</tr>
<tr>
<td>7. No. of doctors per 10,000 population</td>
<td>1.7</td>
<td>6.2</td>
</tr>
</tbody>
</table>

(Source: Internet; statistical outline of India, 2007-09 and Economic survey 2007-08)

**Health as an emerging challenge:**

Consistent efforts have been made since independence to improve the health conditions of the country with the help of several five year plans but yet there are many difficulties or hurdles in the path of success in this domain. It is still a challenge...
in the country’s growth and progress. Following observations highlights the deficiencies of our social infrastructure in terms of health facilities:

- Unequal distribution of health care services
- Communicable diseases
- Poor management
- Privatization
- Poor upkeep and maintenance
- Poor sanitation level

Activity involved

Activity: Congruent Body Language

Aims: (1) To explore appropriate use of body language in assertiveness (2) To develop a personal value of doing team work.

Environment: A large room with chairs of equal height. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pairs activity if required.

Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board. Chart on the topic expansion of health services.

Procedure: In this activity, firstly the group pairs off. Then one person makes full analysis of the topic by discussion orally with the other partner, while other partner during this discussion will respond appropriately with non-verbal behavior. Other partner will sit squarely, without crossed legs or arms look directly at the partner and moreover use an appropriate tone of voice. This all will be done basically to assist the other one who will be speaking. After ten minutes roles will be reversed. At last discussion with the larger group will be held. Through this activity, the assertiveness skills and personal value of doing team work will be developed.

Formative Test-Day V

1. Good health means free from all diseases. True/False
2. Health services of India since 1951 has been increased by: (Tick any one)
   a) Two times  b) Three times  c) Six times  d) Four times
3. Current birth rate of India is ________ and death rate is ________
4. Essential indicators of good health are __________________________
5. How health is still an emerging challenge? Give two reasons.

DAY-VI

Sixth day will be devoted for taking post-test. After taking post-test, investigator will conclude the whole topic of the module briefly in order to revise the important points.

DAY-VII

The last day will be fixed for incubation period with the project activity as a home task. The project on the topic ‘how to cope with the challenge of power generation’ will be given. As power is a part of energy i.e. economic infrastructure, the students will be allowed to chalk out the project on the basis of discussions held in the classroom during last days. There will no page limit or word limit for the same.
Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc.

**Social System**

A social system deals with the relationships between the teacher and the taught. The interactive roles between the two are important. In this module, the social system will be regarded as moderately structured. Although, most of the activities will be supervised by the teacher, yet the student will quite free to initiate and discuss the problems, pass on value judgment and taking decisions and then follow the suitable course. Ample freedom will be given to the students for carrying out their own thinking. Ultimately, the social system for this module will turn out to be a considerateness of one’s own need for growth and others’ need for growth and above all a recognition of the shared need for men to work together to improve their possibilities as individuals and in groups. The system, as a whole, will provide smooth interaction between teacher and the students for a co-operative sharing of the teaching and learning. The social system will all dependent on the social climate generated a willingness to explore one self, a sense of responsibility in assisting others to explore themselves.

**Principle of Reaction**

Each model has a few principles of reaction which concerns the teacher. With the help of this, the teacher comes to know how he has to react to the responses/activities of the students. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However, an investigator will act in such a way as to help the learners obtain insights into their own behavior and to develop conceptual tools for describing their behavior. The investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty.

**Support System**

A model itself is not sufficient in itself. It needs some additional requirements and supporting conditions for its existence. Those additional requirements of the model beyond the usual human skills and capacities and technical facilities are a part of support system.

For this model, the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate.

It includes all the instructional as well as non-instructional aids.

**Instructional Aids:**
- i) Chart on the topic types of infrastructure.
  ii) Chart on the topic expansion of health services.
- Real products related to commercial (Coal) and non-commercial (Firewood) forms of energy
- Handout containing the source material for the project.
• Reference book of XII economics by D. K. Goel.

➢ Other instructional Aids:
• Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
• Internet reference / websites for students to make them more exploratory in nature.
• Business/ economic magazines to make the students aware of the current economic issues and problems.
• Cuttings of newspaper containing some current knowledge related to the topic.

➢ Non Instructional Aids:
• Trained investigator/ leader who always try to maintain openness and honesty.
• A large room with chairs of equal height.
• Small rooms for making different group (if required).
• White board/ black board with chalk/ markers and duster.
• Pointer, scale/ ruler etc.

Instructional and Nurturant Effects
Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.

Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.

➢ Instructional effects:-
• Knowledge of the meaning of infrastructure and its importance in India.
• The conceptual difference between economic and social infrastructure.
• Rational thinking related to the conventional and non conventional sources of energy.
• Practical knowledge related to the commercial and non commercial uses of energy.
• Importance of power for economic development and problem of its generation in India.
• It will make learners independent in thinking.
• Generation of power Self expression.
• Enhancement of social skill.
• Development of self awareness skill.
• Fluency in communication i.e. communication without barriers.
• Enhancement of interpersonal skills.
• Application of knowledge in day to day life.
Nurturant Effects:

- Development of co-operative attitude.
- High self concept and self esteem
- Caring for peer group
- Better understanding of the self, peer group and environment.
- Positive self direction and independence
- Development of awareness of self and fulfillment of individuals' potential
- Make learners more explorative by nature.
- Promoting creativity and curiosity
- Development of balanced emotional attitude.
APPENDIX: D-3 (vi)
INSTRUCTIONAL MODULE: VI

Topic: Employment and Unemployment

Content Sequence: The module includes meaning of employment and unemployment, participation rate of India including male and female ratio of employment, data related to self employed and hired workers in India, occupational structure with job growth of India, type of unemployment and measures taken by the govt. to eliminate it. The sub concepts are arranged as follows:

- Meaning and concepts of employment an unemployment
- Concept of self employed and hired workers
- Types of workers-casual and regular
- Labour supply, labour force and workforce
- Size of workforce in India
- Rate of participation in India
- Occupational structure with recent data according to statistical survey 2006-07
- Types of unemployment
- Causes and consequences of unemployment
- Measures taken by govt. to solve the problem of unemployment

Entry Behaviour: Entry behavior is a set of abilities and skills which are required for the instructions leading to new terminal behavior. Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
   - Have power of influencing others on a right issue.
   - Have an openness for interaction over issues.
   - Have mutual trust and honesty in a group.
   - Have a considerateness of one’s own and other’s need for growth.
   - Belongs to English medium grade XI.
   - Belongs to the group of both boys and girls.
   - Belongs to the age group of 16-17 years.
   - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level which will be required for smooth conduction of classroom instruction as well as for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
   - Write the meaning of employment.
   - Describe the effect of good infrastructure on employment opportunities.
   - Explain the relationship between infrastructure and economic growth.
   - Mention the components of economic infrastructure with the effect of employment.
   - Write essential indicators of good health and its effect on rate of participation.
   - Explain how good health is associated with more employment efficiency.
• Name some causes of less availability of energy in India.
• Name some causes of lack of employment opportunities in India.

Focus: Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

➢ Primary Objectives
➢ Instructional Objectives

➢ Primary Objectives: Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will impart knowledge of employment and unemployment level with various associated terms.

➢ Instructional Objectives: At the end of the instructions, students will have studied the unit thoroughly and will be able to:
• Define employment by listening carefully the lecture delivered in the class.
• Define unemployment in their own words through discussion held in the class.
• Distinguish between casual and regular workers by giving suitable examples through participation in closed question activity.
• Quote examples of self employment and hired workers in present day life by discussing in a group.
• Choose the correct option from the given list of four options related to the formula of calculating rate of unemployment in India.
• Complete the statement showing the difference between labour force and labour supply.
• Select the correct option related to the participation rate of male and female in India by performing hot seat activity.
• Describe the reason of low percentage of female workers in urban areas by participating actively in hot seat activity.
• Identify the correct distribution of workforce found in urban-rural areas, from the given list of four options.
• Choose correct overall rate of participation in India from the given four options by actively participating in class discussion.
• Explain occupational structure of India among the various sectors of economy by giving suitable examples of each sector.
• Enlist various types of unemployment of India by preparing journal properly.
• Define seasonal unemployment and the main cause behind it with the help of journal activity.
• Complete the statement by filling the blanks related to the disguised unemployment and educated unemployment.
• Distinguish between under and frictional unemployment with the help of discussion held in the class in journal activity.
• Enlist various causes of increasing unemployment in India.
• Recognize the correct options related to the economic and social consequences of unemployment in India from the given list of options.
• State some suggestions to solve the problem of unemployment by performing assignment activity.

Syntax (Module-VI)

Syntax refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td></td>
</tr>
<tr>
<td>Day-II</td>
<td>Concept of employment and unemployment with related terms</td>
<td>Brief lecture followed by using Closed Questions Activity.</td>
</tr>
<tr>
<td>Day-III</td>
<td>Occupational structure and rate of participation</td>
<td>Hot Seat Activity followed by lecture of investigator</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Incubation period to revise the previous day’s work</td>
<td>Things Learned Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Types of unemployment, causes and consequences of unemployment with govt. measures</td>
<td>Journal Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to complete the assignment on the topic ‘suggest some general measures to solve the problem of unemployment’</td>
<td>Assignment Activity</td>
</tr>
</tbody>
</table>

DAY- I

First day will be devoted for taking pre-test of module. Investigator will give general introduction about the activities and subject matter of the module.

DAY-II

Second day will be used for the topic concept of employment and unemployment with related terms. Meaning of worker, its types and nature in terms of regular or casual will be the concern of the day. The strategy will be brief lecture followed by an activity of using closed questions.

Content: A worker is an individual who is in some employment to earn his living. Workers are of many types viz. self employed and hired. Self employed are those who engaged in their own business or own profession. Hired workers are those who work for others and get wages or salaries as a reward. Hired workers are further classified in two categories i.e. casual and regular. Casual are those who are on temporary basis and on daily wages and not given any social security benefits. Regular are those who are on permanent basis. They are entitled to all social security benefits including pension, gratuity and provident fund.

There is a subtle distinction between labour supply and labour force. Labour supply refers to the amount of the labour workers are willing to work at a particular wage rate. Labour force on the other hand refers to the number of workers actually
willing to work. It is not related to wage rate. Workforce is the total number of persons actually working and does not account for those who are willing to work.

[Here investigator will use flash card]

<table>
<thead>
<tr>
<th>No. of persons unemployed</th>
<th>Labour force – Workforce</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Rate of Unemployment</th>
<th>No. of Persons Unemployed/ Size of Labour Force x 100</th>
</tr>
</thead>
</table>

**Activities involved**

**Activity:** Brief lecture followed by Using closed questions

**Aims:** (1) To explore the use of closed questions and to enhance listening and counseling skills in a group context. (2) To develop a personal value of tranquility and honesty.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for pairs activity if required.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

**Procedure:** Firstly investigator will give a brief lecture about the topic. He will discuss the main points and related terms in brief. Afterwards the students will be allowed to perform closed questions activity. For the activity, the groups pairs off. One member of each pair will ask closed questions from the other related to the topic of the day. Closed questions are those that elicit yes or no or single word answer. It has specific answer. The process of asking questions will continue for about five minutes. Then roles will be reversed. The second phase will continue for a further five minutes. At last the investigator will invite the group to reconvene. Then, a discussion will be held with the whole group about the topic and about the activity. By this activity, the skill of counseling others and personal value of specificity will be developed.

**Formative Test-Day II**

1. Unemployment means ________________________________
2. One example of casual labour is ___________________ and regular labour is ______________________
3. Hired workers can be classified in __________________ and ______________________
4. Which of the following is an examples of self employed person: (Tick the right option)
   a) Teacher teaches in school  c) Doctor working in a hospital
   b) Farmer  d) Engineer of Govt. organization
5. There is no difference between labour supply and labour force. True/False

**DAY-III**

Third day will be fixed for the topic occupational structure and rate of participation in India. The distribution of male-female and rural-urban employments under rate of participation will be the main concern of the day. Even employment in various sectors of economy will also be discussed. The strategy for the day will be hot.
seat activity which will be followed by brief lecture and discussion by an investigator.

**Content:** rate of participation means participation of people in employment. The main facts about the topic are as follows:

[Here a flipchart on the topic rate of participation will be shown]

<table>
<thead>
<tr>
<th>Items</th>
<th>Rate in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>For urban areas</td>
<td>34</td>
</tr>
<tr>
<td>For rural areas</td>
<td>42</td>
</tr>
<tr>
<td>Urban areas – Men</td>
<td>52</td>
</tr>
<tr>
<td>Urban areas – Women</td>
<td>14</td>
</tr>
<tr>
<td>Rural areas – Men</td>
<td>53</td>
</tr>
<tr>
<td>Rural areas – Women</td>
<td>30</td>
</tr>
<tr>
<td>Overall rate of participation in the country</td>
<td>40 (apx.)</td>
</tr>
</tbody>
</table>

[Here investigator will show a chart containing Bar graph related to the data]

**Occupational structure** shows the distribution of workforce among various sectors of an economy. Primary sector includes agriculture, forestry and logging, fishing, mining and quarrying. Secondary sector includes manufacturing, construction, electricity, gas, water supply. Tertiary sector includes trade, transport and storage services. The contribution of various sectors towards the employment is as follows:

- Primary Sector: 57.3 %
- Secondary Sector: 17.6 %
- Tertiary Sector: 25.1 %

The male female distribution of workforce among various sectors is as follows:

<table>
<thead>
<tr>
<th>Sectors of Economy</th>
<th>Males (%)</th>
<th>Females (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Sector</td>
<td>54</td>
<td>75</td>
</tr>
<tr>
<td>Secondary Sector</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Tertiary Sector</td>
<td>28</td>
<td>13</td>
</tr>
</tbody>
</table>
Activities involved

Activity: Hot seat activity followed by lecture cum discussion

Aims: (1) To encourage students to get to know each other better and to practice asking questions in a group setting. (2) To develop social skills and responsiveness with speed and tolerance. (3) To inculcate accuracy with honesty.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height.

Equipment: No special equipment is required.

Procedure: In this activity, the investigator will nominate one student for hot seat first. The participants should follow some instructions i.e. each person will be given two minutes in hot seat. While in the hot seat (which will be in the front side of room) a person will be asked questions related to the topic by other members of the group. Any question that a participant not wishes to answer may be avoided with ‘pass’. After two minutes the person in hot seat will nominate another member of the group to take his place. This cycle will be continues until everyone in the group will spend two minutes in the hot seat. The investigator can join wherever required and possible. Through this activity, the value of accuracy and to answer with speed will be developed simultaneously with social skills in a group setting.

Formative Test-Day III
1. Male-female ratio of participation rate in India is 5:3. True/False
2. Female workers in rural areas are quite less than male worker. True/False
3. Rate of participation of rural-urban employment in India is ________
4. Overall rate of participation of India is ______________________
5. What is occupational structure?
6. Self employed are more than hired employment in India. True/False

DAY-IV

Fourth day will be dedicated to incubation period. On this day, revision of previous day’s discussion will be done. Topic will remain same i.e. occupational structure with rate of participation among various sectors. Investigator will revise the whole topic with the help of things learned activity. The main motive of this activity is to evaluate the group discussion held yesterday. In this activity each student will state three things that they learned from an activity related to the topic. Investigator may ask anything related to the talk. Investigator will act as a facilitator and guide in this activity. He will explain the doubts in better way with interesting examples and explanation.

DAY-V

On fifth day the topic will be types of unemployment, its causes and consequences with govt. measures to solve the problem. Rural and urban unemployment will be the main concern of the day. The strategy for this day will be journal activity.

Content: Unemployment is classified broadly in two types viz. rural and urban. Rural unemployment is further divided in two types viz. disguised and seasonal. Disguised unemployment is a situation wherein the number of workers engaged in a job is much more than actually required to accomplish. Whereas seasonal unemployment occurs
because agriculture is a seasonal occupation. Urban unemployment if divided in two categories i.e. industrial and educated unemployment. Industrial unemployment includes all those illiterate persons who are willing to work in industries, mining, transport, trade and construction activities, whereas educated unemployment is a great danger to the stability and security of the country. There are some other types of unemployment also prevails in India. i.e.

- Open unemployment
- Structural unemployment
- Under unemployment
- Frictional unemployment
- Cyclical unemployment

There are many causes behind the increase in unemployment in India. Some are slow economic growth, rapid growth of population, lack of irrigation facilities, mobility of labour etc. Unemployment leads to many consequences which are not good for the Indian economy. Some consequences are loss of output, low productivity and capital formation, greater inequality, class struggle and greater social unrest. Govt. has done many efforts to tackle the problem of unemployment and to solve it. Some suggestions are:

- More help to self employed persona
- High rate of capital formation
- Change in educational pattern
- Change in industrial technique
- More importance to employment programmes in plans

**Activity involved**

**Activity:** Journal

**Aims:** (1) To develop cognitive skills related to the topic 2) To develop a habit of doing hard and quality work. (3) To inculcate freedom in self expression.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height and a group should remain in a closed circle throughout. The trainee should be part of the circle.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board. Prepared sheets for the students. Prepared handout containing outline for the journal activity.

**Procedure:** In this activity investigator will make three large groups. In the beginning of the group, the students will be encouraged to prepare a journal of the group discussion. The journal can be a note book, ring binder with loose sheets. The investigator will give the outline of the journal to be made in the form of handout. The following is the outline of the journal:

<table>
<thead>
<tr>
<th>OUTLINE OF THE JOURNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Things learned today</td>
</tr>
<tr>
<td>■ Teaching and learning methods</td>
</tr>
<tr>
<td>■ Reflections of my own contribution</td>
</tr>
<tr>
<td>■ New references to journal articles or books</td>
</tr>
<tr>
<td>■ Other notes</td>
</tr>
</tbody>
</table>

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In this activity, all the participants will have to write or maintain his journal in the above mentioned format. A general group discussion will be carried on in this activity related to the topic. The students will have to participate in the discussions and when required and simultaneously they will have to write the main headings or notes of the discussion in the format given. The investigator will play an important role in carrying out the discussion smoothly and to clear the concept in detail. The journal will be used as a evaluation device for further activities.

**Formative Test-Day V**

1. What are the various types of unemployment in India?
2. What are the main consequences of unemployment in India? Write any two.
3. Seasonal unemployment is found in rural sector only. True/False
4. Disguised unemployment means ________________
5. Increasing unemployment in India causes __________________
6. Problem of unemployment can be minimized through __________________
7. Frictional unemployment is basically due to: (Tick the right option)
   a) Imperfections in the mobility of labour
   b) Perfections in the mobility of labour
   c) Change in structure
   d) More educated unemployment

**DAY-VI**

On sixth day, post-test of the module will be taken. After taking post-test, investigator will conclude the whole topic briefly in order to revise the important points.

**DAY-VII**

Last day of the module will be devoted to the incubation period to complete the assignment on the topic ‘suggest some general measures to solve the problem of unemployment’. The students will be allowed to make an assignment on the given topic in small groups. A group leader will be chosen by group members. There will be no page limit. They will be allowed to make it by using any reference material like internet, other reference books, magazines and any news data. They will be allowed to quote already running govt. measures as well as to give any new idea to eradicate the problem of unemployment. Through this activity, leadership values will be developed. After completing the assignment, group leader will present the report of assignment briefly in front of class.

**Social System**

It describes the roles of student and teacher and their relationships and the kind of norms that are encouraged. In this module the investigator should act as facilitator of group activities. This module will be characterized by norms of mutuality, trust and openness. The investigator will always try to moderate the external structure by good task sequence. Full freedom to students will be encouraged by investigator in order to make 100 percent participation of students. It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. Classroom environment will be very congenial which encourage the students to participate in their full potential. The social system will all dependent on the social climate generated a willingness to explore one self, a sense of...
responsibility in assisting others to explore themselves and an openness for interaction over issues.

Principle of Reaction

With the help of principle of reaction, the teacher comes to know how he has to react to the responses/activities of the students. For this module, the investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one’s feelings and reactions. It tells about the nature of interaction between the teacher and taught. Each model has a few principles of reaction which concerns the teacher. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain in sights in to their own behavior and to develop conceptual tools for describing their behavior.

Support System

A model itself is not sufficient in itself. It needs some additional requirements and supporting conditions for its existence. Those additional requirements of the model beyond the usual human skills and capacities and technical facilities are a part of support system.

For this model the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate.

It includes all the instructional as well as non instructional aids.

- **Instructional Aids:**
  - Flipchart on the topic rate of participation among various sectors
  - Flash card showing the formulae of calculating persons unemployed and rate of participation.
  - Chart on the topic distribution of workers among various sectors of economy.
  - Handout containing outline for the journal.

- **Other instructional Aids:**
  - Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
  - Internet reference / websites for students to make them more exploratory in nature.
  - Business/ economic magazines to make the students aware of the current economic issues and problems.
  - Cuttings of newspaper containing some current knowledge related to the topic.

- **Non Instructional Aids:**
  - Trained investigator/ leader who always try to maintain openness and honesty.
  - A large room with chairs of equal height.
  - Small rooms for making different group (if required).
• White board/ black board with chalk/ markers and duster.
• Pointer, scale/ ruler etc.

**Instructional and Nurturant Effects**

Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.

Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.

➢ **Instructional effects:**
  - Clarity of the meaning of unemployment and related terms.
  - Knowledge of workforce, labour supply and labour force.
  - Understanding of the difference between self employed and hired workers.
  - Acquaintance with the rate of participation in India.
  - Knowledge of distribution of workers among various sectors of economy.
  - Understanding of various causes, consequences and measures to remove unemployment.
  - It will make learners independent in thinking.
  - Generation of power of self expression.
  - Development of inter-personal skills.
  - Fluency in communication i.e. communication without barriers.

➢ **Nurturant Effects:**
  - Development of awareness of self and fulfillment of individual’s potential
  - Better understanding of the self, peer group and environment.
  - Make learners more explorative by nature.
  - Development of creative thinking.
  - Development of emotions and emotional maturity.
  - Development of co-operative attitude.
  - High self concept and self esteem
  - Caring for peer group
  - Positive self direction and independence
APPENDIX: D-3 (vii)
INSTRUCTIONAL MODULE: VII

Topic: Industry and Foreign Trade

Content Sequence: The module includes meaning and concept of industry and its development, cottage and small scale industries in India and its relevance, state of foreign trade and its main components. The sub concepts are arranged as follows:

- Meaning of industrial development
- Significance of industrial development
- Problems of industrial development in India
- Importance of cottage and small scale industries
- Problems and govt. policies of cottage and small scale industries
- Main features of foreign trade
- Imports and exports of India
- Problems and policies including export promotion and import substitution of foreign trade

Entry Behaviour: Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. It describes the behavior the students must have acquired before venturing on the particular new terminal behavior. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
  - Have a considerateness of one’s own need and other’s need for growth.
  - Have an openness for interaction over issues
  - Have a sense of responsibility in assisting others to explore themselves.
  - Have a willingness to explore oneself.
  - Belongs to English medium grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level which will be required for the activities. Pre requisites knowledge about the topic is very important to know the level from where the investigator will proceed towards instructions. It enables the investigator to explore the willingness on the part of learner to take active participation. so, before instruction, the students are expected to:
  - Define the term industry
  - Correlate the industrial growth and foreign trade
  - Define the terms export and import
  - Explain briefly about the employment and its impact on industrial growth
  - Choose the male-female proportion related to the employment rate in India
  - Distinguish between casual and regular workers
  - State correct overall rate of participation in India
  - Identify the correct distribution of workforce in urban-rural areas
  - Define occupational structure and its impact on foreign trade

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Write the meaning of small and cottage industries with example

**Focus:** Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided into two parts:

- **Primary Objectives**
  - Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will impart knowledge about the industrial growth and its impact on India’s economic development and foreign trade with its features and problems.

- **Instructional Objectives:** At the end of the instructions, students will have studied the unit thoroughly and will be able to:
  - Define the meaning of industrial development through active participation in Quaker group activity.
  - Correlate the development of industries with the agricultural development by giving facts and figures related to it.
  - Choose the share of industry and services in GDP according to 2005-06 survey from the given options.
  - Quote an example which shows improvement in standard of living through industrial development.
  - Fill in the blanks related to the problems of industrial development in India by participating actively in Quaker group activity.
  - Identify the correct option from the given two options related to the problem of innovation and research.
  - Choose the correct option related to the bank which plays an important role in industrial development in India by eliminating the problem of capital.
  - Choose the correct option from the given four options related to the capital investment limit of small scale industries in India.
  - Select the contribution of small industries (in %) to total industrial production from the given four options.
  - Write two points of importance of small and cottage industries in Indian context by participating in alternating chair activity.
  - Match the correct statements related to problems of small and cottage industries with their solutions proposed in Govt. policy.
  - Write some products produced by small and cottage industries in India through active participation in alternating chair activity.
  - Write two steps taken by Govt. to develop small scale industries.
  - Complete the statement regarding the meaning of foreign trade by participating actively in worksheet activity.
  - State some features of foreign trade of India after actively participating in worksheet activity.
  - Choose some items of imports of India from the given list after observing carefully a pie chart on the topic ‘imports of India’

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• Fill in the blanks regarding main export items of India by observing a chart on the said topic.
• Choose that item of export from the given four options, which contributes the most in Indian exports.
• State the main item of import that has the maximum share in Indian imports
• State two main problems of Indian foreign trade by listening lecture carefully and participating actively in a classroom discussion.
• Explain briefly the meaning of import substitution as a measure of policy by discussing in a group.
• Enlist some measures of Govt. policy to improve or correct the defects of foreign trade.

Syntax (Module-VII)

Syntax refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td></td>
</tr>
<tr>
<td>Day-II</td>
<td>Industrial development and its problems</td>
<td>Brief lecture followed by Quaker Group Activity.</td>
</tr>
<tr>
<td>Day-III</td>
<td>Cottage and small scale industries</td>
<td>Alternating Chair Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Foreign trade and its features</td>
<td>Worksheet Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Problems and policies of foreign trade</td>
<td>Lecture cum Discussion Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period to complete the worksheet at home individually</td>
<td>Worksheet Activity</td>
</tr>
</tbody>
</table>

**DAY-I**

First day will be devoted for taking pre-test. Investigator will give brief introduction about the activities and content of the module.

**DAY-II**

On the second day, the topic will be industrial development and its problems. The relevance and contribution of industries in Indian economy will be the main concern of the day. The strategy of this day will lecture followed by Quaker group activity.

**Content:** Industrialization in its widest sense is the key of economic progress and higher living standards. Industrial development has an important contribution of the economic progress of underdeveloped economy of India. Industrial development helps significantly in the solution of such problems as poverty, insecurity, unemployment, backwardness of population, dependence on agriculture, unfavourable balance of payment etc. industrial development has its relevance in the following points:
• Balanced development
• Development of agriculture
• Increase in the productivity
• Increase in national income and employment opportunities
• Improvement in the standard of living
• Export promotion and import substitution
• Good growth with stability

Despite several success stories behind the industrial development, rate of industrial development in India has been very low as compared to other countries. The reason being that Indian industries are faced with several problems. Some of the problems are mentioned below:
• Problem of power resource and capital
• Lack of proper infrastructure and proper machinery and plants
• Lack of innovation and research
• Problem of raw material and industrial sickness
• Problem of regional inequality and industrial structure
• Inefficient public sector industries and gaps between targets and achievements
• Less development of small scale and cottage industries

Activity involved

Activity: Brief lecture followed by Quaker group

Aims: (1) To explore a particular style of group decision making. (2) To develop decisiveness power and value of democracy.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height. Group should remain in the closed circle throughout and the investigator should be part of the circle.

Equipment: No special equipment is required.

Procedure: This activity is specifically for use as a decision making enterprise. In this activity firstly investigator will introduce the topic by giving brief lecture and then all the students will be allowed to participate in the activity. Investigator will start a discussion on the topic industrial development and its problems in India and he will ask students to give their ideas and suggestions on the topic. All the students will have to participate one by one. Investigator may join whenever required. Ideas will rise until no further suggestions will be floated. Once it will occur, the last idea and point will be the final for that particular discussion. By this activity, students will be expected to rise and developed a democratic decision making power and the value of democracy and decisiveness.

Formative Test-Day II

1. Industrial development means ____________________________

2. Write the full from of the following banks:
   a) IDBI  b) SIDBI ______________________________

3. Write True/False for the following:
   a) 64 % population in India depends upon agriculture for occupation.
   b) Pressure on agriculture diminishes due to industrial development.
   c) Standard of living is improved over time due to industrial development.
   d) Problem of innovation and research is the main problem in industrial development of India.
4. Select the correct option regarding the share of industries and services in GDP of India:
   a) 36.4%  
   b) 26.4%  
   c) 46.4%

5. Write any two problems in the way of industrial development in India.

DAY-III

Third day will be devoted to the topic cottage and small scale industries. The importance and problems with their solutions will be the main concern of the day. The present position of cottage and small scale industries will also be discussed on this day. The strategy for the day will be alternating chair activity.

Content: Cottage and small scale industries also known as micro industries constitute an important segment in Indian economy. Cottage industries are those industries which are run by an individual with the help of family members. It plays an important role in industrial revolution in India. The points of importance are employment, decentralization, less pressure of population on agriculture, immediate increase in productivity, artistic goods, industrial peace, more exports, complementary to large industries, and use of local resources.

As on 10 October 2008, following items are reserved for exclusive manufacture by micro and small enterprise sector:

- Food and Allied Industries: Pickles & Chutneys, Bread, Mustard Oil (except solvent extracted), Ground nut oil (except solvent extracted).
- Wood and Wood Products: Wooden furniture and fixtures
- Paper Products: Exercise books and registers
- Injection Moulding Thermo Plastic Product: PVC Pipes, including conduits up to 110 mm dia, Fittings for PVC pipes
- Other Chemicals & Chemical Products: Wax candles, Laundry soap, Safety matches, Fire works, Agarbatties
- Glass & Ceramics: Glass Bangles
- Mechanical Engg. Excluding Transport Equipment: Steel almirah, Rolling shutters, Steel chairs – all types, Steel tables – all other types, Steel furniture – all other types, Padlocks, Stainless steel utensils, Domestic utensils - Aluminium

There are certain problems associated with the growth of small scale industries like old machines, problem of finance, raw material, marketing, and competition with large scale industries, more taxes etc. govt. has taken several measured to help the SSI and to solve their problems by providing policy measures like financial help, common production help, research an training, technical assistance, improved tools, purchase by the govt., exports etc.

Activity involved

Activity: Alternating chair

Aims: (1) To encourage group participants to explore both sides of a topic. (2) To develop creativity, alertness and presence of mind as well as good communication skill.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height. Two special chairs for the activity.
Equipment: A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

Procedure: In this activity, the investigator will invoke a discussion on the said topic. Afterwards students will be allowed to come forward one by one on the chairs. One chair will be for the topic and other against the topic. This is highly structured group activity. The investigator will periodically invite group members to speak for both sides of a debatable topic. The topic for this activity will be ‘Are cottage and small scale industries beneficial to the Indian economy growth’. Each student will have to speak in favour of the topic by sitting on first chair fro two minutes, afterwards he will have to switch over to another chair and make exactly opposite point i.e. he will have to speak against the topic again for two minutes. In this way, the skill of communication with presence of mind and alertness will be developed.

Formative Test-Day III

1. The limit of capital investment in the form of fixed assets is _______ for the small and cottage industries. (One crore/Two crore)
2. The small scale and cottage industries have contributed _______% shares in the total industrial production of India. (49%/39%)
3. Small and cottage industries plays a significant role in providing employment to masses. T/F
4. Suggest solutions for the following problems of small scale and cottage industries in India.
   a) Problem of finance
   b) Problem of raw material
   c) Problem of old methods of production
5. Choose those products from the following list which are produced by small and cottage industries. (Put tick mark)
   a) Paper products
   b) Computer hardware’s
   c) Food products
   d) Handicrafts
   e) Automobiles

DAY-IV

Fourth day will be fixed for the topic foreign trade and its features. Meaning of foreign trade with main exports and imports will be the main concern of the day. The strategy for this day will be worksheet activity.

Content: Foreign trade has an important place in the economy of a country. Foreign trade comprises of exports and imports. Its main features are it increases gross national income, it constitutes oceanic trade, dependence on a few ports and it is still dependent trade etc. The main exports of India are:

[Here investigator will show a chart on various export items of India]

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2005-06 (Rs. In Crores)</th>
<th>2006-07 (Rs. In Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering goods</td>
<td>84867.08</td>
<td>9934.29</td>
</tr>
<tr>
<td>Electronic goods</td>
<td>9934.29</td>
<td>67322.25</td>
</tr>
<tr>
<td>Project goods</td>
<td>595.48</td>
<td>806.51</td>
</tr>
<tr>
<td>Textiles</td>
<td>67322.25</td>
<td>595.48</td>
</tr>
<tr>
<td>Automobiles</td>
<td>3270.16</td>
<td>3279.77</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>3270.16</td>
<td>3279.77</td>
</tr>
<tr>
<td>Agricultural and allied</td>
<td>3270.16</td>
<td>3279.77</td>
</tr>
<tr>
<td>Plantations</td>
<td>3270.16</td>
<td>3279.77</td>
</tr>
<tr>
<td>Marine Products</td>
<td>3270.16</td>
<td>3279.77</td>
</tr>
</tbody>
</table>

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Ores and Minerals 27401.32 Handicrafts 1817.19
Leather and Manufacture 11625.53 Carpets 3669.70
Gems and Jewellery 68830.1 Cotton Raw 2791.87
Sports goods 585.51 Petroleum products 50979.05
Chemicals 68686.36 Unclassified Exports 13331.91

The main imports of India will be shown in the form of pie chart. It is as follows:

[Here investigator will show a flash card to explain the concept of India’s imports]

Volume of foreign trade has increased considerably during last ten years. In 1947-48, it was of Rs. 507 crores only. It increased up to Rs. 1250 crores in 1951. It is no longer confined to a few countries or a few commodities. At present, India has trade relations with almost all countries of the world and it is approximately of Rs. 11,16,827 crores in the year 2005-06 with a list of 5500 items.

Activity involved

Activity: Worksheet
Aims: (1) To develop thinking power. (2) To explore more ideas.
Environment: A general classroom situation
Equipment: A white board or black board to allow discussion points to be jotted down. Chalk or markers for the board.

FORMAT OF WORKSHEET

| General Instructions: Read the information carefully and then fill the worksheet in a group. There is no time limit. Attempt all the parts of the worksheet. |
|-----------------------------|-------------------------------|
| **Items**                  | **Space for the answers**    |
| 1. Main items of exports of India |                              |
| 2. Main items of imports of India |                              |
| 3. Item which is exported most |                              |
| 4. Item which is imported most |                              |
| 5. Oldest export item       |                              |
| 6. Oldest import item       |                              |
| 7. Item to be imported in near future due to more usage |  |
Procedure: Firstly investigator will introduce the topic very briefly. Afterwards the students will be allowed to fill the worksheet in small groups by discussing themselves. After the activity, investigator will cross check their knowledge by discussing the whole topic in detail with the help of teaching aids mentioned above. After this students will be given a fresh worksheet again to fill at home as a home task. By this they will come to know their knowledge and thinking power will also developed. To some extent social skills will also be developed by discussing in the groups.

Formative Test-Day IV

1. What do you mean by foreign trade? Write in two lines.
2. Foreign trade of India is basis of its economic growth. True/False
3. Choose the items of import and export of India from the following list. (write ‘I’ for imports and ‘E’ for exports against the item)
   a) Machineries    f) Paper
   b) Cotton cloth  g) Jute products
   c) Food grains   h) Chemicals
   d) Precious stones  i) Handicrafts
   e) Tea and coffee j) Petrol
4. Main item of Indian export is ________ and Import is __________
5. An item which is imported most in India is __________

DAY-V

On fifth day, the topic will be problems and policies of foreign trade. Various principal problems of India’s trade and policies such as import substitution and export promotion will be the main concern of the day. The strategy for this will be simple lecture cum open discussion activity.

Content: The comprehensive understanding of the subject matter requires knowledge of the principal problems of India’s foreign trade. Some of the important ones are discussed below:

- Shackles of conventional exports
- Direction of foreign trade not so diversified
- High import content in exports
- Mounting deficit of balance of payments
- Lack of competitive edge in the international markets
- Poor political diplomacy

It is owing to these above mentioned problems that the India’s share in international trade has not grown over time. Rather it continues to stagnant around 1.5% of the world trade. These problems need to be urgently and seriously addressed. In this regard many measures are taken by the govt. to tackle the problem. Some of the policies and measures are discussed below:
Import Substitution: It means total or partial replacement of an important product of the same functional requirement mainly from indigenous material and know-how. It is very important measure in achieving self sufficiency in economic sphere.

Export promotion: It refers to those policies and measures through which exports of a country can be increased to the maximum extent. Some of measures under export promotion are:
- Increase in production
- Publicity of export goods
- Training in foreign trade
- Trade agreements like GATT
- Export houses with star houses facility
- State trading
- Encouragement to tourists trade
- Cost reduction

Activity involved

Activity: Lecture cum open discussion

Aims: (1) To develop listening capacity. (2) To develop creative and critical thinking. (3) To develop personal value of respect of other’s ideas or views.

Environment: A general classroom situation

Equipment: A white board or black board to allow discussion points to be jotted down. Chalk or markers for the board.

Procedure: In this activity, investigator will be more active in first phase when he will give lecture in detail about the topic to clear the concept. Afterwards in second phase all the students will become active by participating in open discussion on the topic between them as well as with the investigator. There will be open discussion in the classroom around the topic. Students will be allowed to give their views freely. An atmosphere of free exchange of ideas will be developed for better sharing of views. Investigator will note down the main points or conclusions of the discussion on the board side by side. By this activity, skill of thinking rationally and creative as well as critical thinking will be developed. Moreover patience and discipline will also be developed through patient listening to the investigator.

Formative Test-Day V

1. Write any two problems of foreign trade in India.
2. Import substitution means
3. More exports and less imports, is a better situation for any country. True/False
4. Which of the following is not a measure taken by Govt. to solve the problem of foreign trade? (Tick one option only)
   a) More subsidies
   b) Liberalization in export procedure
   c) Export quotas and licensing
   d) Lowering export duties
5. Choose the full form of EOU from the following:
   a) Export oriented undertaking
   b) Export oriented units
   c) Export over utility
   d) Export oriented union
DAY-VI

Sixth day will be fixed for taking post-test. After taking post-test, investigator will conclude the whole topic of the module briefly in order to revise the important points.

DAY-VII

On seventh day, students will complete their individual worksheets at home. It will be treated as incubation period. This type of worksheets will encourage the students to participate fully in the classroom and to get in-depth knowledge of the topic. There will be no interference of the investigator in this activity. Extra reference material will be used by the students to fill the worksheet on the lines and directions given in the worksheet. It will develop a self confidence among the students.

Social System

A social system deals with the relationships between the teacher and the taught. The interactive roles between the two are important. In this module social system will be regarded as moderately structured. Although, most of the activities will be supervised by the teacher, yet the student will quite free to initiate and discuss the problems, pass on value judgment and taking decisions and then follow the suitable course. Ample freedom will be given to the students for carrying out their own thinking. Ultimately social system for this module will turn out to be a considerateness of one’s own need for growth and others’ need for growth and above all a recognition of the shared need for men to work together to improve their possibilities as individuals and in groups. The system, as a whole, will provide smooth interaction between teacher and the students for a co-operative sharing of the teaching and learning. A very congenial atmosphere will be developed ion the classroom for creating freedom to exchange the views and for hundred percent participation of all the students.

Principle of Reaction

While using the model how should a teacher regard and respond to the activities of the student is a concern of this element. These responses should be quite appropriate and selective. It provides the teacher with particular and unique rules of thumb by which to ‘tune in’ to the student and selected appropriate response to what the student does. For this module, the investigator will guard against over-intensity or over- exposure to any member of the group who he feels does not have the stability to take the action. However an investigator will act in such a way as to help the learners obtain in sights in to their own behavior and to develop conceptual tools for describing their behavior. The investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one’s feelings and reactions.

Support System

Each model has a support system that contributed towards the success of the model. It generates proper environment for it. The model functions in such a way that it goes on generating climate which supports it further and makes it function better and better.
For this model the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate. The teacher who will be characterized by personal openness and who has the requisite interpersonal and intrapersonal skills will be best component of the support system of this model.

It includes all the instructional as well as non instructional aids.

**Instructional Aids:**
- Chart on various export items of India
- Worksheet on the topic foreign trade and its features
- Flash card containing pie chart on distribution of Indian imports
- Real products of small and cottage industries. (agarbaties. Glass, registers and note books, furniture, pickles etc.)

**Other instructional Aids:**
- Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
- Internet reference / websites for students to make them more exploratory in nature.
- Business/ economic magazines to make the students aware of the current economic issues and problems.
- Cuttings of newspaper containing some current knowledge related to the topic.

**Non Instructional Aids:**
- Trained investigator/ leader who always try to maintain openness and honesty.
- A large room with chairs of equal height.
- Small rooms for making different group (if required).
- White board/ black board with chalk/ markers and duster.
- Pointer, scale/ ruler etc

**Instructional and Nurturant Effects**

Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.

Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.
Appendices....

➢ **Instructional effects:-**

- Knowledge of industrial development in India and its relevance for Indian economic development.
- Development of rational thinking related to the problems of cottage and small scale industries in India.
- Meaning of foreign trade and its importance for India.
- Practical knowledge related to problems of foreign trade in India
- Acquaintance with the products exported from and imported to India.
- Application of knowledge in day to day life.
- Enhancement of social instructional skills.
- Development of self awareness skill.
- Fluency in communication i.e. communication without barriers.
- Enhancement of interpersonal skills.
- It will make learners independent in thinking.

➢ **Nurturant Effects:-**

- Development of feeling of co-operation.
- High self concept and self esteem
- Caring for peer group
- Development of awareness of self
- fulfillment of individual’s potential
- Make learners more explorative by nature.
- Enhancement of creativity and curiosity
- Development of emotional stability.
- Positive self direction and independence
- Better understanding of the self, peer group and environment.
APPENDIX: D-3 (viii)
INSTRUCTIONAL MODULE: VIII

Topic: Environment and Sustainable Development

Content Sequence: The module includes meaning and concept of environment and sustainable development, importance of environment for us, basic problems of environment and its solution, comparison of environmental conditions in past and present and strategies of sustainable development. The sub concepts are arranged as follows:

- Concept of environment
- Significance and functions of environment
- Basic problems related to environment
- Causes of environmental degradation
- State of environment in India
- Measures to save environment
- Present and past thinking on environment
- Meaning and features of sustainable development
- Strategies of sustainable development

Entry Behaviour: Entry behavior is a set of abilities and skills which are required for the instructions leading to new terminal behavior. Entry behavior describes the status of student’s knowledge and skill in reference to a future status, the teacher wants him to attain. This consists of two operations:

➢ Assumptions about the learners: It is assumed by the investigator that the learners:
  - Have power of influencing others on a right issue.
  - Have mutual trust and honesty in a group.
  - Have an ability to discuss patiently in a group.
  - Have recognition of the shared need to work together.
  - Belongs to English medium grade XI.
  - Belongs to the group of both boys and girls.
  - Belongs to the age group of 16-17 years.
  - Belongs to the different socio-economic status.

➢ Pre-requisite skills: It is required for the investigator to know the learners mental level which will be required for smooth conduction of classroom instruction as well as for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. So, before instruction, the students are expected to:
  - Define the meaning of pollution
  - Quote different types of pollution which effects environment
  - Write about the degradation of our environment since last ten years
  - Define the meaning of industrial development
  - State the positive and negative impacts of industrial development
  - Choose the problem of agriculture sector due to bad environment
  - Correlate the progress of industrial sector with the deterioration of agriculture on the cost of environment

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• Correlate the development of industries with the agricultural development
• Quote some products which are likely to distinct in near future due to their excessive use at present.

Focus: Focus describes the goals and objectives of the model. It is the central aspect of a teaching model. Therefore, objectives of teaching and aspects of the environment generally constitute the focus of the model. The focus of this module has been divided in two parts:

➢ Primary Objectives
➢ Instructional Objectives

➢ Primary Objectives: Awareness Training Model is specially designed to help people realize themselves more fully. The main focus is to create awareness and to increase self understanding of own as well as of others behavior, and also to help students develop alternate patterns for their personal and social development. Further this module will impart knowledge of environment and its sustainable use for the coming future with various associated terms.

➢ Instructional Objectives: At the end of the instructions, students will have studied the unit thoroughly and will be able to:

- Complete the statement regarding the meaning of environment by actively participating in opening round activity.
- Select the true statements from the given statements regarding significance of environment for human life.
- Write different types of pollution which pollutes the environment
- Choose the main reason behind degradation of land from the given four options.
- Suggest two points to control deforestation through participation in the purposively created climate in group discussion.
- Quote two alternatives of the use of wood to control overutilization of wood.
- Write the meaning of global warming and its effects on environment.
- Elaborate the statements regarding causes of environment degradation with the hints provided.
- Fill up the blanks regarding the meaning and effect of ozone depletion by participating actively in open quiz.
- Write two points to save our environment by actively participating in classroom discussion.
- Define the meaning of sustainable development with the help of discussion held in the class.
- State two features of sustainable development by listening lecture and participating in snowballing activity.
- Explain briefly the use of environment friendly sources of energy by giving real life examples.
- Explain the use of sunlight and organic farming as strategies of sustainable development.
- Choose the best public means of transport from the given options related to sustainable development.
- Select the best option related to the alternative use of sunlight in place of electricity by participating in paradox activity.
• Recognize the correct option related to the significance of sustainable development from the given two options.
• Choose the area of dense forest cover in India from the list of four options.

**Syntax (Module-VIII)**

Syntax refers to the description of the model in action. Each model consists of several phases and activates which have to be arranged in specific sequence quite unique to a particular model. It gives complete direction to the teacher to proceed. The syntax of this module is as follows:

<table>
<thead>
<tr>
<th>Days</th>
<th>Topic</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-I</td>
<td>Pre-Test</td>
<td></td>
</tr>
<tr>
<td>Day-II</td>
<td>Environment: Meaning, functions and problems</td>
<td>Opening Round Activity.</td>
</tr>
<tr>
<td>Day-III</td>
<td>Causes of environmental degradation and measures to control it</td>
<td>Lecture followed by Open Quiz Activity</td>
</tr>
<tr>
<td>Day-IV</td>
<td>Sustainable development: Meaning and features</td>
<td>Snowballing Activity</td>
</tr>
<tr>
<td>Day-V</td>
<td>Strategies for sustainable development</td>
<td>Paradox Activity</td>
</tr>
<tr>
<td>Day-VI</td>
<td>Post-Test</td>
<td></td>
</tr>
<tr>
<td>Day-VII</td>
<td>Incubation period for making summary of Paradox Activity</td>
<td>Summarizing Activity</td>
</tr>
</tbody>
</table>

**DAY- I**

First day will be fixed for taking pre-test. After taking pre-test, Investigator will give general introduction about the activities to be conducted and content to be taught in the module.

**DAY-II**

Second say will be fixed for the topic meaning, functions and problems of environment. Excessive exploitation of natural resources and various types of pollution which are very harmful for our natural environment will be the main concern of the day. The strategy to be used will be a brief lecture followed by an activity of **opening round**.

**Content:** Environment may be defined as all those conditions and their effects which influence human life. It includes all living as well as non-living elements which make up surroundings and impact our existence and the quality of our life. Environment plays a significant role in our lives. i.e.

[Here a chart having points of significance of environment will be shown]

- Environment offers resources for production
- Environment sustains life
- Environment assimilates waste
- Environment enhances quality of life

There are two basic problems related to environment:

- Problem of pollution
• Problem of excessive exploitation of natural resources

Pollution refers to those activities of industry, agriculture, household, vehicles, and others which render soil, water, and environment pollutes. It is of three kinds viz. air, water, and noise pollution.

Second aspect of environmental problem related to excessive exploitation of natural resources or degradation of natural resources. Natural resources refer to forests, minerals, soli etc. It is also called natural capital. Degradation of natural capital includes deforestation and degradation of land.

[Here investigator will distribute handouts which contains some alarming facts about the environment which are not available in their text books]

| FORMAT OF HANDOUT
<table>
<thead>
<tr>
<th><strong>Did You Know these facts?</strong></th>
</tr>
</thead>
</table>
| • Air pollution causes hypertension, asthma, respiratory and cardio-vascular problems, these are very deadly diseases.
  • Farmers often wash vegetables in the ‘nullas’ full of untreated sewerage water. If eaten raw, such vegetables are a sure source of deadly diseases. So you all are to be very careful to wash all vegetables properly before eaten.
  • Area of dense forest cover in India is merely 36 lac hectares, and overtime it has tended to shrink. It was recorded to be 46.4 lac hectares in 1972-73 and only 41.7 lac hectares in 2003-04. So, need of the hour is to plant trees as more as possible. Global warming is also a result of deforestation. So take pledge to plant trees.
  • Soil erosion occurring due to strong winds or floods is further enhanced through deforestation. Forests act as a built-in-check on soil erosion by showing down the menace of floods ad strong winds. |

Activities involved

**Activity:** Brief lecture followed by Opening Round

**Aims:** (1) To explore beyond thinking in a supportive group atmosphere. (2) To develop skill of concentration and value of collaboration.

**Environment:** A large room in which people can sit comfortably in a group. Chairs should be of equal height.

**Equipment:** A white board or black board to allow discussion points to be jotted down (The board should not become a focal point of the session). Chalk or markers for the board.

**Procedure:** This activity is specifically for developing skill of concentration and creativity among the students in a large group setting. In this activity whole class will act as a group. Opening round will be started by the investigator. He will give brief introduction about the topic followed by some questions will be asked by him. Questions will be very interesting and related to the real life situations. Students will be allowed to participate in the activity one by one by raising hands to answer the questions. Investigator will support them in exploring and generating new ideas in the activity. By this activity students will get a chance to develop skill of creativity to speak on the spot on any topic and skill of concentration to listen patiently. Moreover
Formative Test-Day II

1. What do you mean by environment?
2. Which type of pollution is directly associated with industrialization: (Tick the right options)
   a) Air pollution  c) Noise pollution
   b) Water pollution  d) Soil pollution
3. Land is degraded by ____________________________
4. Two movements started by Indian Govt. to stop deforestation are:
   a) ____________________________  b) ____________________________
5. Environment is helpful in ____________________________
6. River valley projects leads to deforestations. True/False

DAY-III

Third day will be kept for the topic causes of environmental degradation and measures to control it. Main causes generated by human beings and its removal will be the main concern of the day. The strategy for the day will be a brief lecture to introduce the topic followed by open quiz activity.

Content: Environmental degradation is mainly caused by human activities. Human wants are unlimited but the resources to fulfill their demands are limited in nature. So there is exploitation in the usage of natural resources resulted in degradation of environment. Some overall causes of environmental degradation are:

- Population explosion
- Poverty of the masses
- Increasing urbanization
- Increasing use of insecticides, pesticides and chemical fertilizers
- Rapid industrialization
- Multiplicity of transport vehicles
- Disregard of civic norms

Environment is very important for all of us. So there is an urgent need of hour to save it. Various methods or measures to save it are social awareness of the people towards its importance, population control, through enforcement of environment conservation act, by making control over industrial and agricultural pollution, through water management, by proper management of solid waste and by making necessary improvement in housing facilities.

Activities involved

Activity: Brief lecture followed by Open Quiz

Aims: (1) To encourage the generation of ideas about a particular topic. (2) To develop skill of co-operation in group settings. (3) To inculcate value of leadership and group work.

Environment: A large room in which people can sit comfortably in a group. Chairs should be of equal height.

Equipment: No special equipment is required.
Appendices....

Procedure: Under this activity, firstly a brief lecture will be given by the investigator to introduce the said topic. Afterwards four groups of twelve to fifteen students each will be formed. Investigator will ask questions in open quiz activity and groups will have to answer. There will be no fixed turn in this activity. That group will have to answer which knows the answer by raising their hands. Investigator will note down the points for each correct answer on the board side by side. Each group will be encouraged to give the answer as much as possible. At last investigator will conclude the topic by describing the main facts about the topic. Questions will be framed which will inculcate some social awareness about the topic. Through this activity, various new ideas will be generated in the minds of students easily. Moreover skill of cooperation will be developed in group settings. Value of loyalty towards the group member as well as leadership will also be developed.

Formative Test-Day III
1. What is global warming?
2. ___________ gas is mainly concerned with global warming.
3. Choose the main cause of environmental degradation from the following:
   a) More industries        c) More transportation
   b) More agricultural activities d) More population
4. Immediate effect of ozone depletion on us is ____________________
5. Social awareness is to be given to the masses to save our environment.
   True/False
6. Ozone layer protects us from the __________________ radiations to enter in our environment. (ultra violet/ Infra red)

DAY-IV

Fourth day of this module will be dedicated to the topic sustainable development. The meaning of sustainable development, its features and functions are the main concern of the day. The strategy of this day will be Snowballing activity.

Content: Sustainable development is that process of economic development which aims at maintaining quality of life of both present and future generations without harming natural resources and environment. It is that process of development which meets the needs of the present generation without reducing the ability of the future generation to meet their own needs. Features of Sustainable development are:
- Sustained rise in real per capita income and economic welfare
- Rational use of natural resources
- No reduction of the ability of future generations to meet their own needs
- No increase in pollution

Activities involved
Activity: Snowballing
Aims: (1) To explore a topic through frequent reformation of pairs. (2) Assimilation of ideas coming from people of diverse personality. (3) To develop social skills and mutual understanding.
Environment: A large room with of equal heights. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pair activity if required.
Equipment: A whiteboard/blackboard to allow discussion points to be jotted down, (The board should not become a focal point of the session). Chalk/ markers for the board.

SEATING PLAN FOR SNOWBALLING ACTIVITY

<table>
<thead>
<tr>
<th>Phase</th>
<th>Students Each</th>
</tr>
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<tbody>
<tr>
<td>1st</td>
<td>2</td>
</tr>
<tr>
<td>2nd</td>
<td>4</td>
</tr>
<tr>
<td>3rd</td>
<td>8</td>
</tr>
<tr>
<td>4th</td>
<td>12</td>
</tr>
<tr>
<td>5th</td>
<td>24</td>
</tr>
<tr>
<td>6th</td>
<td>48</td>
</tr>
</tbody>
</table>

Procedure: This activity will relate itself to group discussion moving from the smaller groups to the larger groups as shown in figure. First of all, investigator will make the groups/ Pair. Each pair will explore a topic in depth. Each pair of grappling will be given five minutes for discussion. After five minutes, one pair will link up with the next nearest pair to form a group of four. This process will continue until the larger group will be formed. During the process the automatic shift in the choice of leaders of various groups will happen. So ultimately the last two big group’s leaders will present their final conclusions or points of discussion. At the end on investigator will accept the queries and will ask some questions or invite some questions for the same. By this activity social skills will be developed.

Formative Test-Day IV

1. Sustainable development means ________________________________
2. Write two sources of our use which are eco-friendly
   a) ___________ b) ___________
3. Sustainable development meets the needs of present generation as well as ______ generation. (Fill the appropriate word)
4. Sustainable development focuses on the needs of the present day generation. T/F
5. Suggest two ideas to solve the problem of over utilization of wood in regard of sustainable development.

**DAY-V**

Fifth day will be fixed for the topic strategies of sustainable development. Various strategies carried on by the Indian govt. will be the main concern of the day. The strategy for the day will be paradox activity.

**Content:** Sustainable development does not mean a check on the existing pace of economic growth. It only means a judicious or optimum utilization of resources and in a manner such that the pace of growth is sustained with inter-generative equity. There are many strategies taken up by the Indian govt. to tackle the sustainable growth properly. These are given below:

[Here a chart having various real life examples will be used by the investigator to clear the topic properly]

- Input efficiency technology
- Use of environment friendly sources of energy
- Integrated rural development
- Convert sunlight in to solar energy and solar energy in to electricity
- Shift to organic farming
- Recycle the waste
- Stringent laws on the disposal of chemical effluents
- Awareness to conserve natural assets for inter-generational equity
- Public means of transport (Metro)

**Activities involved**

**Activity:** Paradox

**Aims:** (1) To explore the paradoxical nature of statements. (2) To develop assertiveness skill.

**Environment:** A large room with of equal heights. Space enough to allow participants to pair off and then to reconvene. Smaller rooms can be used for the pair activity if required.

**Equipment:** A whiteboard/blackboard to allow discussion points to be jotted down, (The board should not become a focal point of the session). Chalk/ markers for the board.

**Procedure:** In this activity, the investigator will introduce the topic first. Afterwards, he will make some small groups of 8-10 students each and then ask the students of each group turn by turn to state one statement each related to the strategy of sustainable development. During the discussion, the investigator will occasionally ask students to explore the opposite of the statement they have made because each strategy has positive as well as negative impact of its own. Thus, investigator will use the expression ‘try saying the negative impact of that’ after a student has expressed a particular statement regarding the strategy of sustainable development. Through this activity assertiveness skill will be developed and students will be more aware about the statements they want to make.
Formative Test-Day V
1. How sunlight be used as a measure of sustainable development?
2. Good means of transport also facilitates sustainable development. T/F
3. Sustainable development is very important for all of us. T/F
4. Choose the best use of sunlight from the following:
   a) In solar cooker  
   b) Facilitated photosynthesis 
   c) Giving heat sensation 
   d) In solar inverters
5. ______________ % is an estimated area of dense forest in India.

DAY-VI
On sixth day, post-test will be taken. After taking post-test, investigator will conclude the whole topic briefly to put emphasis on the relevant subject matter.

DAY-VII
On seventh day there will be no teaching but summarizing activity will be performed. It will be used as an incubation period. In this activity investigator has no role. In this students will have to make a summary in small groups in the class on the topic studied previous day through paradox activity. They will have to write about the various strategies of sustainable development and the importance of sustainable development for coming future. There will no page limit or word limit for the same. Students will be allowed to use any reference material like newspaper, magazines, internet, reference books etc. By this activity students will get more knowledge of the topic and interest will be developed in the subject. Moreover they will get training to write summary in efficient way.

Social System
It describes the roles of student and teacher and their relationships and the kind of norms that are encouraged. In this module the investigator should act as facilitator of group activities. This module will be characterized by norms of mutuality, trust and openness. The investigator will always try to moderate the external structure by good task sequence. Full freedom to students will be encouraged by investigator in order to make 100 percent participation of students. It is required for the investigator to know the learners mental level which will be required for the activities. It enables the investigator to explore the willingness on the part of learner to take active participation. Classroom environment will be very congenial which encourage the students to participate in their full potential. The social system will all dependent on the social climate generated a willingness to explore one self, a sense of responsibility in assisting others to explore themselves and an openness for interaction over issues.

Principle of Reaction
With the help of principle of reaction, the teacher comes to know how he has to react to the responses/activities of the students. For this module, the investigator will work to maintain openness at all times, both with respect to his own acceptance of feeling and ideas from others and the other group members’ acceptance of feelings and ideas from their fellows. Investigator will always attempt to communicate a climate of directness and honesty and of an uninhibited exploration of one’s feelings and reactions. It tells about the nature of interaction between the teacher and taught.
Each model has a few principles of reaction which concerns the teacher. The investigator will guard against over-intensity or over-exposure to any member of the group who he feels does not have the stability to take the action. However, an investigator will act in such a way as to help learners obtain insights into their own behavior and to develop conceptual tools for describing their behavior.

**Support System**

A model itself is not sufficient in itself. It needs some additional requirements and supporting conditions for its existence. Those additional requirements of the model beyond the usual human skills and capacities and technical facilities are a part of support system.

For this model, the leader needs access to or familiarity with a variety of exploratory games that relate to the interpersonal areas of inclusion, control, and affection. He or she also needs competence in recognizing feelings (and the avoidance of feelings) and in facilitating an open, accepting social climate.

It includes all the instructional as well as non-instructional aids.

- **Instructional Aids:**
  - i) Chart on the topic significance of environment
  - ii) Chart on various real-life examples related to the strategies of sustainable development.
  - Handout on some real facts related to the exploitation of environment.

- **Other instructional Aids:**
  - Reference books for assisting students’ interest by giving them more knowledge other than available in their text books.
  - Internet reference/websites for students to make them more exploratory in nature.
  - Business/economic magazines to make the students aware of the current economic issues and problems.
  - Cuttings of newspaper containing some current knowledge related to the topic.

- **Non Instructional Aids:**
  - Trained investigator/leader who always try to maintain openness and honesty.
  - A large room with chairs of equal height.
  - Small rooms for making different groups (if required).
  - White board/black board with chalk/markers and duster.
  - Pointer, scale/ruler etc.

**Instructional and Nurturant Effects**

Each model is developed around some goals. But every model affects some other aspects of the student’s behavior also. The direct effect which are achieved by leading the learner in certain directions are known as instructional effect and the indirect effect which come from experience the environment created by the model are known as nurturant effects.
Awareness training model is specifically designed to help people realize themselves more fully. The primary purpose of awareness training is to open up to the individual his possibilities for development, for increasing his awareness of the universe and his possibilities in it, his awareness of the possibilities of interpersonal relations he might have with people.

➢ Instructional effects:–
• Knowledge of the importance of environment for our lives
• Clarity of exploitation of natural resources and its after effects in future
• Strategies of sustainable development and its importance
• In depth knowledge of causes of wastage of resources and measures to save them
• Acquaintance with the use of ozone layer, sunlight and trees for us.
• Generation of power of self expression.
• Development of assertiveness skill.
• Fluency in communication i.e. communication without barriers.
• It will make learners independent in thinking.
• Application of knowledge in day to day life.

➢ Nurturant Effects:–
• Development of awareness of self
• fulfillment of individual’s potential
• Better understanding of the self, peer group and environment.
• High self concept and self esteem
• Development of caring attitude for peer group
• Positive self direction and independence
• Make learners more explorative by nature.
• Enhancement of creative thinking and curiosity
• Development of emotional maturity.
• Development of co-operative attitude