Appendix - B

MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI
CRITICAL THINKING ABILITY TEST

by
Deepa R.P & Dr. M. Sadanandan
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ROUGH DRAFT

This test provides problems and situations which require the application of some of the important abilities involved in critical thinking. It consists of 4 parts.

- Recognition of assumptions
- Interpretations
- Deduction
- Evaluations

The section on recognition of assumptions have items which consist of one statement, followed by two assumptions. Using which the subject is required to judge whether the series of given assumptions follow or not from the statement.

The section on interpretation requires the subject to interpret the ideas contained in the factual statements.

The section on deduction has items where the subject is required to read independent statements and decide whether a series of given conclusions follow from the original statements.

The section on evaluation has a question, for which answers are given together with arguments supporting the answer. The subject has to decide whether the arguments given are strong or weak.

PART - I RECOGNITION OF ASSUMPTIONS

Directions  Read the statements and decide whether the assumptions given below follow from the statements or not. Then mark your answer as (a), (b), (c), (d)

Question 1
Statement  “Wanted a two bedroom flat in the court area for immediate possession” - an advertisement
Assumptions  I. Flats are in court area
II. Some people will respond to the advertisement
III. It is a practice to give such an advertisement
(a) All are implicit  (b) Only II is implicit
(c) None is implicit  (d) Only I and II are implicit

Question 2
Statement  The situation of this area still continues to be tense and out of control. People are requested to be in their homes only.
Assumptions  I. There had been some serious incidents.
II. People will not go to the office.
III. Normalcy will be restored shortly.
(a) Only I is implicit (b) Only I and II are implicit
(c) None is implicit (d) Only I and III are implicit

Question 3
Statement Unable to manage with the present salary, Arun has decided to join another company.
Assumptions I. The new company has better work environment.
II. The present company moderate pay packets.
III. The new company offers higher salary to all its employees.
(a) None is implicit (b) Only II is implicit
(c) All are implicit (d) Only II and III are implicit

Question 4
Statement “Put a notice on the board that all the employees should come on time to office” - An officer tells his assistant.
Assumptions I. All the employees come late.
II. Employees read such notice on the board.
III. Employees will follow the instructions.
(a) Only I and II are implicit (b) Only III is implicit
(c) Only II and III are implicit (d) Only I and II I are implicit

Question 5
Statement Pramod decided to get the railway reservation in May, for the journey he wants to make in July to Madras.
Assumptions I. The railways issues reservations two months in advance.
II. There is more than one train to Madras.
III. There will be vacancy in the desired class.
(a) Only I is implicit (b) Only II and III are implicit
(c) Only I and III are implicit (d) All are implicit

Question 6
Statement “Work hard to be successful in the examinations” - A advises B.
Assumptions I. B listens to A’s advice.
II. Passing the examination is desirable.
III. Hard practice leads to success.
(a) Only I and II are implicit (b) Only II and III are implicit
(c) Only I and III are implicit (d) All are implicit

Question 7
Statement “The residents of the locality wrote a letter to the Corporate requesting to restore normalcy in the supply of drinking water immediately as the supply at present is just not adequate.
Assumptions I. The Corporation may not take any action on the better.
II. The municipality has enough water to meet the demand.
III. The water supply to the area was adequate in the past.
(a) Only I and III are implicit (b) Only II is implicit
(c) Only II and III are implicit (d) Only III is implicit
Question 8
Statement: The successful man has the ability to judge himself correctly.
Assumptions:
I. Inability to judge correctly cause failure.
II. To judge others is of no use to successful man.
III. The successful man cannot make a wrong judgement.
(a) None is implicit  (b) All are implicit
(c) Only II and II are implicit  (d) Only II and III are implicit

Question 9
Statement: The telephone company informed the subscribers through a notification that those who do not pay their bills by the due date will be charged penalty for every defaulting day.
Assumptions:
I. Majority of the people may pay their bills by the due date to avoid penalty.
II. The money collected as penalty may set off their loses due to delayed payment.
III. People generally pay heed to such notices.
(a) All are implicit  (b) Only I and III are implicit
(c) Only I and II are implicit  (d) None is implicit

Question 10
Statement: “As our business is expanding, we need to appoint more staff”. Owner of a company informs his staff.
Assumptions:
I. The present staff is not competent.
II. More staff will further expand the business.
III. Suitable persons to taken as staff will be available.
(a) None is implicit  (b) Only I is implicit
(c) Only II is implicit  (d) Only III is implicit

Question 11
Statement: Delink degrees with jobs. Then, boys will think twice before joining colleges.
Assumptions:
I. Boys join college education for getting job.
II. A degree is of no use for getting a job.
III. Girls do not try for jobs
(a) Only I is implicit  (b) Only I and I are implicit
(c) Only II and III are implicit  (d) Only I and III are implicit

Question 12
Statement: “Smoking is injurious to health” - a warning printed on the cigarette packets.
Assumptions:
I. People read printed matter on a cigarette packet
II. People take careful note of warning
III. Non smoking promotes health
(a) Only I is implicit  (b) Only I and II are implicit
(c) Only II is implicit  (d) All are implicit

Question 13
Statement: In view of the recent spurt in sugar prices in the open market, the governments has asked the dealers to release a vast quantity of imported sugar in the open market.
Assumptions:
I. The dealers will follow the government directive.
II. The sugar prices will come down.
III. The price of indigenous sugar will remain unchanged.
(a) Only I and II are implicit (b) Only II and III are implicit
(c) Only I and III are implicit (d) None is implicit

Question 14
Statement “We must introduce objective type tests to improve our examinations for admission to MBA”. The Chairman of the Admission Committee tells the Committee.
Assumptions I. The admission at present is directly through the interview.
II. The admission Committee is desirous of improving the admission examinations.
III. The Chairman himself is an MBA.
(a) Only I and III are implicit (b) Only II is implicit
(c) Only I and II are implicit (d) Only I is implicit

Question 15
Statement “I want to present a book on techniques of yoga to Ajay on his birthday” - A tells B
Assumptions I. A will be invited by Ajay on his birthday
II. The person to whom the book is to be presented is not keeping good health
III. Book is an acceptable gift for birthday
(a) Only I and II are implicit (b) Only I and III are implicit
(c) Only I and III are implicit (d) None is implicit

Direction Read the statements in the top, decide whether the assumption given below follow from the statements at the top. Then mark your answer as (a) Only I is implicit (b) Only II is implicit (c) Both I and II is implicit (d)None of these

Question 16
Statement A large number of the children were admitted in the hospital. The symptoms in these cases suggested food poisoning. This could have been due to the contamination of the milk.
Assumptions I. Contaminated milk may lead to food poisoning.
II. Food poisoning may lead to sickness.

Question 17
Statement Gandhiji wanted to use the latent energies of the rural unemployed to be properly utilized
Assumptions I. There are unemployed in the villages
II. Gandhiji was a reformer

Question 18
Statement Poverty is a symptom as well as a consequence of social disorder
Assumptions I. Poverty is a type of social order
II. Poverty is related to social order

Question 19
Statement Mankind can get freedom only through revolution
Assumptions
I. Revolutions can bring freedom
II. Except revolutions there is no other method of getting freedom

Question 20
Statement
Mankind can get freedom only through revolution
Assumptions
I. Revolutions can bring freedom
II. Except revolutions there is no other method of getting freedom

Question 21
Statement
The situation calls for an immediate action
Assumptions
I. The situation is serious
II. Immediate action is possible

Question 22
Statement
There is no need to open a school here
Assumptions
I. Children in this area do not study
II. There are already many schools in this area

Question 23
Statement
Implementation of land reforms would raise the credit worthiness of the poor
Assumptions
I. Credit worthiness of the poor must be raised
II. It is necessary to implement land reforms

Question 24
Statement
Barking dogs seldom bite
Assumptions
I. Dogs always bark
II. Some dogs bite

Question 25
Statement
Friendship is more necessary for the happy than for the unhappy
Assumptions
I. Happiness is needed by having friends
II. Unhappiness is decreased by having friends

Question 26
Statement
Many historians have done more harm than good by distorting facts
Assumptions
I. Historians distort facts
II. If historical facts distorted harm is done

Question 27
Statement
Interview conducted for selecting people for jobs should measure personally characteristic of candidates
Assumptions
I. Performance on job depends on personality characteristics
II. Personally characteristics can be measured in interview

Question 28
Statement
The electric supply corporation has decided to open a few more collection centres in the business district area
Assumptions
I. The people in the area may welcome the decision
II. Hence forth, there may be less time required by the customer for paying electricity bill
Question 29
Statement   Films have become indispensable for the entertainment of people
Assumptions I. Films are the only media of entertainment
II. People enjoy films

Question 30
Statement   Vitamins E tablets improve circulation; keep you complexion in a glowing condition
Assumptions I. People like a glowing complexion
II. Complexion becomes dull in the absence of circulation

PART-II INTERPRETATION

Directions In each of the following questions, a statement is given, followed by two conclusions, or ideas supposed to be contained in the original statement. Examine each conclusion given below and mark your answer as (a) Only I follows (b) Only II follows (c) Both I & II follows (d) None of these

Question 1
Statement   Walking is good for health
Conclusions I. All healthy people go for walking
II. Only walking makes you healthy

Question 2
Statement   Company Y has marketed the product. Go ahead; purchase it if price and quality are your considerations.
Conclusions I. The product must be good in quality.
II. The price of the product must reasonable.

Question 3
Statement   The best way to escape from a problem is to solve it.
Conclusions I. Your life will be dull if you don’t face a problem.
II. To escape from problems, you should always have some solutions with you.

Question 4
Statement   A neurotic is a non stupid person who behaves stupidly.
Conclusions I. Neuroticism and stupidity go hand in hand.
II. Normal persons behave intelligently.

Question 5
Statement   Vegetables prices are soaring in the market
Conclusions I. Vegetables are becoming a rare commodity.
II. People cannot eat vegetables.

Question 6
Statement   India’s economy is depending mainly on forests.
Conclusions I. Trees should be preserved to improve Indian economy.
II. India wants only maintenance of forests to improve economic conditions.
Question 7
Statement: This world is neither good nor evil; each man manufactures a world for himself.
Conclusions:
I. Some people find this world quite good.
II. Some people find this world quite bad.

Question 8
Statement: Video libraries are flourishing very much these days.
Conclusions:
I. People in general have got a video craze
II. It is much cheaper to see as many movies as one likes on videos rather than going to the cinema hall

Question 9
Statement: Company X has a record of manufacturing cameras of quality and the latest design so that you do not spoil even a single shot irrespective of the weather conditions.
Conclusions:
I. No other company except X is reputed in the camera industry
II. Any one can take an acceptable shot with camera X

Question 10
Statement: Recent trends also indicate that the number of child migrants in large cities is increasing. These children leave their families to join the ranks of urban poor doing odd jobs in markets, workshops, hotels or in service sectors.
Conclusions:
I. Migration to big cities should be checked
II. The plight of poor children should be thoroughly studies.

Question 11
Statement: Jade plant has thick leaves and it requires little water.
Conclusions:
I. All plants with thick leaves require little water
II. Jade plants many be grown in places where water is not in abundance

Question 12
Statement: After this amendment to the Constitution, no child below the age of 14 years will be employed to work in any factory or mine or engaged in any other hazardous employment.
Conclusions:
I. Before this amendment, children below 14 years were employed to work in factory or mine
II. The employees must now abide by this amendment to the Constitution.

Question 13
Statement: Good voice is a natural gift but one has to keep practicing to improve and excel well in the field of music
Conclusions:
I. Natural gifts need nurturing and care
II. Even though your voice is not good, one can keep practicing

Question 14
Statement: Domestic demand has been increasing faster than the production of indigenous crude oil
Conclusions:
I. Crude oil must be imported
II. Domestic demand should be reduced
Question 15
Statement All the organized persons find time for rest. Sunita, in spite of her very busy schedule, finds time for rest.
Conclusions I. Sunita is an organized person
II. Sunita is an industrious person

Question 16
Statement Until our country achieves economic equality, political freedom and democracy would be meaningless.
Conclusions I. Political freedom and democracy go hand in hand
II. Economic equality leads to real political freedom and democracy

Question 17
Statement National Aluminium Company has moved India from a position of shortage to self sufficiency in the metal
Conclusions I. Previously, India had to import aluminium
II. With this speed, it can soon become a foreign exchange earner

Question 18
Statement In case of outstanding candidates, the condition of previous experience of social work may be waived by the admission committee for M.A (Social work)
Conclusions I. Some of students for M.A (Social work) will have previous experience of social work.
II. Outstanding candidates have previous experience of social work.

Question 19
Statement Death keeps no calendar
Conclusions I. Man must die one day
II. Death can come at any time

Question 20
Statement Water supply in wards A and B of the city will be affected by about 50% on Friday because repairing work of the main lines is to be carried out
Conclusions I. The residents in these wards should economise on water on Friday
II. The residents in these wards should store some water on the previous day

Question 21
Statement Parents are prepared to pay any price for an elite education to their children
Conclusions I. All parents these days are very well off.
II. Parents have an obsessive passion for a perfect development of their children through good schooling

Question 22
Statement The government of country X has recently announced several concessions and offered attractive package tours for foreign visitors
Conclusions I. Now, more number of foreign tourists will visit the country.
II. The government of country X seems to be serious in attracting tourists

Question 23
Statement Primary school-going children in urban India have now become avid as well as more regular viewers of television, even in households without a TV. As a
result there has been an alarming decline in the extent of readership of newspapers.

**Conclusions**

I. Method of increasing in readership of newspapers should be revised
II. A team of experts should be sent to other countries to study the impact of T.V. on the readership of newspapers.

**Question 24**

**Statement**

From the next academic year, students will have the option of dropping mathematics and science for their school leaving certificate examination

**Conclusions**

I. Students who are weak in science and mathematics will be admitted
II. Earlier students did not have the choice of continuing their education without taking these subjects

**Question 25**

**Statement**

Reading maketh a full man, conference a ready man and writing an exact man.

**Conclusions**

I. Pointed and precise expression comes only through extensive writing
II. Extensive reading makes a complete man

**Question 26**

**Statement**

Industrial Revolution which first of all started in Europe has brought about modern age.

**Conclusions**

I. Disparity between rich and poor results in revolution
II. Revolution overhauls society

**Question 27**

**Statement**

Government has spoiled many top ranking financial institutions by appointing bureaucrats as Directors of these institutions

**Conclusions**

I. Government should appoint Directors of the financial institutes taking into consideration the expertise of the person in the area of finance
II. The Director of the financial institute should have expertise commensurate with the financial work carried out by the institute

**Question 28**

**Statement**

Adversity make a man wise

**Conclusions**

I. The poor are wise
II. Man learns from better experience

**Question 29**

**Statement**

People who speak too much against the corruption are those who had done it themselves

**Conclusions**

I. It is easier said than done
II. People have double standard

**Question 30**

**Statement**

The old order change the yielding place to new

**Conclusions**

I. Change is the law of nature
II. Discard old ideas because they are old.
### PART - III DEDUCTION

**Direction**

In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically following from the two given statements, disregarding commonly known facts. Give answer (a) Only conclusion I follows (b) Only conclusion II follows (c) Both conclusion I & II follows (d) None of these

<table>
<thead>
<tr>
<th>Question</th>
<th>Statement</th>
<th>Conclusion</th>
<th>I.</th>
<th>II.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Horse is a bird. Some birds are clouds. So</td>
<td>Horse is a cloud</td>
<td>Some clouds are birds</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>All tables are ants, Some ants are chairs so</td>
<td>Some tables are chairs</td>
<td>Some chairs are tables</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No man is a monkey. John is man. So John is not a monkey</td>
<td>John is not a monkey</td>
<td>John is a monkey</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>All boys are mothers. All mothers are fathers. So</td>
<td>All mothers are boys</td>
<td>All boys are fathers</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Some works are leaders. All leaders are poor. Therefore</td>
<td>Some workers are poor</td>
<td>Some workers are not poor</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>All hens are swans. No swan is a chair. Therefore</td>
<td>No chair is hen</td>
<td>No hen is chair</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>All children are innocent. Some animals are innocent. Therefore</td>
<td>Some animals are children</td>
<td>Some children are animals</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Only first divisioners are admitted. Ram is first divisioner, so</td>
<td>Ram is admitted</td>
<td>All admitted are first divisioners</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sounds are not visible, Colours are not sounds, So</td>
<td>Colours are not visible</td>
<td>No visible thing is colour</td>
<td></td>
</tr>
</tbody>
</table>
Question 10
Statement: The governor governs the state, governor’s wife governs the governor, So
Conclusion I. Governor’s wife governs the state
II. Both the husband wife govern the state

Question 11
Statement: Planes fly in the air, Birds fly in the air, So
Conclusion I. Birds are planes
II. Planes are birds

Question 12
Statement: Light removes darkness. Aluminium is light, so
Conclusion I. Aluminium removes darkness
II. Aluminium is darkness

Question 13
Statement: All cranes are swallow. All swallow are swans, Therefore
Conclusion I. All cranes are swans
II. All swans are cranes

Question 14
Statement: All nouns are verbs. All verbs are adjectives. Therefore
Conclusion I. Some nouns are adjectives
II. Some adjectives are nouns

Question 15
Statement: All dogs are pigs. Some pigs are not hen. Therefore
Conclusion I. No hen is dog
II. No dog is hen

Question 16
Statement: All rods are walking sticks. Some walking sticks are pipes. Therefore
Conclusion I. Some pipes are rods
II. No rods are pipes

Question 17
Statement: No aeroplane is ship. No ship is boat. Therefore
Conclusion I. No aeroplane is boat
II. No boat is aeroplane

Question 18
Statement: All ministers are public men. Some public men are considerate. Therefore
Conclusion I. Some ministers are considerate
II. Some considerate people are ministers

Question 19
Statement: Some boys are men. No man is black
Conclusion I. Some boys are not black
II. Some men are boys

Question 20
Statement: All dresses are shoes. No shoes is brown
Conclusion

I. No dresses are brown
II. Some shoes are dresses

Question 21

Statement
Some phones are watches. All watches are guns

Conclusion
I. All guns are watches
II. Some guns are phones

Question 22

Statement
All students in my class are intelligent. Rohit is not intelligent

Conclusion
I. Rohit is not a student of my class
II. Rohit must work hard

Question 23

Statement
All hill stations have a sunset point. X is a hill station

Conclusion
I. X has a sunset point
II. Places other than hill stations do not have sunset points

Question 24

Statement
Some players are singers. All singers are tall

Conclusion
I. Some players are tall
II. All players are tall

Question 25

Statement
All windows are needles. Some trees are windows

Conclusion
I. Some trees are needles
II. Some trees are not needles

Question 26

Statement
Some dogs bark. All dogs bite

Conclusion
I. Those dogs who do not bark, also bite.
II. Those dogs who do not bark, not necessarily bite.

Question 27

Statement
All poets are readers. No readers is wise

Conclusion
I. No poet is wise
II. All readers are poets

Question 28

Statement
Most crops are machines. Some machines are tools

Conclusion
I. Some tools are machines
II. Some crops are tools

Question 29

Statement
All teachers are good. Some women are teachers

Conclusion
I. All good teachers are women
II. Some women are good

Question 30

Statement
All books are friends. All friends are dangerous. Therefore

Conclusion
I. Some dangerous things are books
II. Some books are dangerous things
PART - IV EVALUATION

Directions: Examine the statements given below. Every statement is followed by an argument either positive or negative, decide which one is strongly support the statement and which one weak. Then mark your answer as (a) Only arguments I is strong (b) Only arguments II is strong (c) Both arguments I and II are strong (d) None of these

Question 1
Statement: Should number of holidays of Government employees be reduced?
Arguments: I. Yes. Our Government employees are having minimum number of holidays among the other countries of the world
II. No. it will lead to decreased productivity of govt. offices

Question 2
Statement: Should foreign goods are banned in India?
Arguments: I. Yes, They adversely affects our productivity
II. No. Foreign goods are of a high artistic standard and quality

Question 3
Statement: Should there be reservation of seats and posts on communal basis?
Arguments: I. Yes, it will check most of the inter-communal biases
II. No. Ours is a secular state

Question 4
Statement: Should women’s entrepreneurs be encouraged?
Arguments: I. Yes. they will help in women’s empowerment development of the country
II. Yes they will reduce the burden on economic development

Question 5
Statement: Should government spend huge amounts of money in international sports?
Arguments: I. No. This money can be utilized for upliftment of the poor
II. Yes. Sports person will be frustrated and will not get international exposure

Question 6
Statement: Should there be a complete ban on selling drugs near schools?
Arguments: I. Yes. Children’s health is spoiled by using them.
II. No. it will affect the business of shop keeper

Question 7
Statement: Should a total ban be put on trapping wild animals?
Arguments: I. Yes. Trappers are making a lot of money
II. No. Ban on hunting and trapping are not effective

Question 8
Statement: Should telecasting feature films be stopped?
Arguments: I. Yes. Young children are misguided by the feature films.
II. This is the only way to educate the masses

Question 9
Statement: Should school education be made free in India?
Arguments: I. Yes. This is the only way to improve the level of literacy.
II. It would add to the already heavy burden on the exchequer

**Question 10**

**Statement**  Is paying ransom or agreeing to the conditions of kidnappers of political figures, a proper course of action?

**Arguments**  I. Yes. The victims must be saved at all cost

II. No. It encourages the kidnappers to continue their sinister activities

**Question 11**

**Statement**  Should government jobs in rural areas have more incentives?

**Arguments**  I. Yes. Incentives are essential for attracting government servants there.

II. No. Rural areas are already cheaper. Healthier and less complex than urban areas. So, why offer extra incentives

**Question 12**

**Statement**  Should India stop missile development?

**Arguments**  I. Yes. The U.S.A. desires so.

II. No. The nation must always remain up to date in its defence preparedness.

**Question 13**

**Statement**  Should we scrap the ‘Public Distribution System’ in India?

**Arguments**  I. Yes. Protectivism is over, everyone must get the bread on his/her own.

II. Yes. The poor do not get any benefit because of corruption.

**Question 14**

**Statement**  Should India go in for computerization in industry?

**Arguments**  I. No. Computerization demand a lot of money. We should not waste money on it.

II. Yes. When advanced counties are introducing computers in India, how can India afford to lag behind?

**Question 15**

**Statement**  Is unemployment allowance justified?

**Arguments**  I. Yes. It provides financial aid to the unemployed.

II. No. It might promote idleness among the unemployed youth.

**Question 16**

**Statement**  Is buying things on installments profitable the customer?

**Arguments**  I. Yes. He has to pay less.

II. No. Paying installments upsets the family budget.

**Question 17**

**Statement**  Should an organization like UNO be dissolved?

**Arguments**  I. Yes. With cold war coming to an end, such organizations have no role to play.

II. No. In the absence of such organizations there may be a world war.

**Question 18**

**Statement**  Is monarchy better than democracy?

**Arguments**  I. Yes. If the chair has one confirmed ruler, there are no ambitious aspirants fighting for it.
II. No. People are more contented and happy in democracy

Question 19
Statement Should there be a complete ban on strike by government employees in India?
Arguments I. Yes. This is the only way to teach discipline to the employees
II. No. This deprives the citizens of their democratic rights

Question 20
Statement Should Doordarshan be given autonomous status?
Arguments I. Yes. It will help Doordarshan to have fair and impartial coverage of all important events.
II. No. The coverage of events will be decided by a few who may not have healthy outlook.

Question 21
Statement Should public holidays be declared on demise of important national leaders?
Arguments I. No. Such unscheduled holidays hamper national progress
II. Yes. People would like to pay their homage to the departed soul.

Question 22
Statement Is cutting of trees be banned altogether?
Arguments I. Yes. It is very much necessary to do so to restore ecological balance
II. No. A total ban would harm timber-based industries

Question 23
Statement Is the Government justified in spending so much on defence?
Arguments I. Yes. Safety of the country is of prime importance.
II. No. During peace, this money could be used for the development of the country.

Question 24
Statement Should judiciary be independent of the executive?
Arguments I. Yes. This would help curb the unlawful activities of the executive.
II. No. The executive would not be able to take bold measures

Question 25
Statement Should so much money be spent on rural education?
Arguments I. Yes. It is an essential component for national development
II. No. It leads to wastage of resources

Question 26
Statement Should all the transport corporations be handed over to the private organizations?
Arguments I. Yes. There will be a significant change in the quality and punctuality of services
II. No. There would not be job security for the employees at all the levels

Question 27
Statement Should loyalty be the only criterion for promotion in any organization?
Arguments I. Yes. Without loyal men, no organization can function.
Question 28

Statement  Should untouchability be banned in India?
Arguments  I. No. Menial people deteriorate the living standard of society.
II. Yes. All people should be equally treated in a democratic country like India.

Question 29

Statement  Should there be a complete ban on child-labour in India?
Arguments  I. No. This will lead thousands of people into poverty.
II. Yes. Children will not get education.

Question 30

Statement  Is caste based reservation policy for women justified?
Arguments  I. Yes. The step is a must to bring upliftment for women.
II. No. It obstructs the establishments of a classless society.
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The section on evaluation is a question, for which answers are given together with arguments supporting the answer. The subject has to decide whether the arguments given are strong or weak.

**PART - I RECOGNITION OF ASSUMPTIONS**

**Directions:** Read the given statements and, decide whether the assumptions given below follow from the statements or not. Then mark your answer as (a), (b), (c), (d)

**Question: 1**

**Statement:** The situation of this area still continues to be tense and out of control. People are requested to be in their homes only.

**Assumptions:**

I. There had been some serious incidents.
II. People will not go to the office.
III. Normalcy will be restored shortly.

(a) Only I is implicit  
(b) Only I and II are implicit  
(c) None is implicit  
(d) Only I and III are implicit
**Question: 2**

Statement: Pramod decided to get the railway reservation in May for the journey he wanted to make in July to Madras.

Assumptions:

I. The railways issue reservations two months in advance.
II. There is more than one train to Madras.
III. There will be vacancy in the desired class.

(a) Only I is implicit  (b) Only II and III are implicit
(c) Only I and III are implicit  (d) All are implicit

**Question: 3**

Statement: The residents of the locality wrote a letter to the Corporate requesting to restore normalcy in the supply of drinking water immediately as the supply at present is just not adequate.

Assumptions:

I. The Corporation may not take any action on the better.
II. The municipality has enough water to meet the demand.
III. The water supply to the area was adequate in the past.

(a) Only I and III are implicit  (b) Only II is implicit
(c) Only II and III are implicit  (d) Only III is implicit

**Question: 4**

Statement: The successful man has the ability to judge himself correctly.

Assumptions:

I. Inability to judge correctly cause failure.
II. To judge others is of no use to successful man.
III. The successful man cannot make a wrong judgement.

(a) None is implicit  (b) All are implicit
(c) Only II and II are implicit  (d) Only II and III are implicit

**Question: 5**

Statement: The telephone company informed the subscribers through a notification that those who do not pay their bills by the due date will be charged penalty for every defaulting day.

Assumptions:

I. Majority of the people may pay their bills by the due date to avoid penalty.
II. The money collected as penalty may set off their loses due to delayed payment.
III. People generally pay heed to such notices.

(a) All are implicit  (b) Only I and III are implicit
(c) Only I and II are implicit  (d) None is implicit
Question: 6
Statement: “As our business is expanding, we need to appoint more staff”. Owner of a company informs his staff.
Assumptions: I. The present staff is not competent.
II. More staff will further expand the business.
III. Suitable persons to be taken as staff will be available.
(a) None is implicit  (b) Only I is implicit  (c) Only II is implicit  (d) Only III is implicit

Question: 7
Statement: In view of the recent spurt in sugar prices in the open market, the government has asked the dealers to release a vast quantity of imported sugar in the open market.
Assumptions: I. The dealers will follow the government directive.
II. The sugar prices will come down.
III. The price of indigenous sugar will remain unchanged.
(a) Only I and II are implicit  (b) Only II and III are implicit  (c) Only I and III are implicit  (d) None is implicit

Question: 8
Statement: “We must introduce objective type tests to improve our examinations for admission to MBA”. The Chairman of the Admission Committee tells the Committee.
Assumptions: I. The admission at present is directly through the interview.
II. The admission Committee is desirous of improving the admission examinations.
III. The Chairman himself is an MBA.
(a) Only I and III are implicit  (b) Only II is implicit  (c) Only I and II are implicit  (d) Only I is implicit

Direction: Read the given statements and decide whether the assumptions given below follow from the statements at the top. Then mark your answer as (a) Only I is implicit (b) Only II is implicit (c) Both I and II are implicit (d) None of these

Question: 9
Statement: A large number of the children were admitted in the hospital. The symptoms in these cases suggested food poisoning. This could have been due to the contamination of the milk.
Assumptions: I. Contaminated milk may lead to food poisoning.
II. Food poisoning may lead to sickness.
Question: 10
Statement: Gandhiji wanted to use the talent and energies of the rural unemployed to be properly utilized
Assumptions: I. There are unemployed in the villages
II. Gandhiji was a reformer

Question: 11
Statement: Poverty is a symptom as well as a consequence of social disorder
Assumptions: I. Poverty is a type of social order
II. Poverty is related to social order

Question: 12
Statement: Mankind can get freedom only through revolution
Assumptions: I. Revolutions can bring freedom
II. Except revolutions there is no other method of getting freedom

Question: 13
Statement: There is no need to open a school here
Assumptions: I. Children in this area do not study
II. There are already many schools in this area

Question: 14
Statement: Implementation of land reforms would raise the credit worthiness of the poor
Assumptions: I. Credit worthiness of the poor must be raised
II. It is necessary to implement land reforms

Question: 15
Statement: Barking dogs seldom bite
Assumptions: I. Dogs always bark
II. Some dogs bite

Question: 16
Statement: Interview conducted for selecting people for jobs should measure personality characteristic of candidates
Assumptions: I. Performance on job depends on personality characteristics
II. Personality characteristics can be measured in interview

Question: 17
Statement: The electric supply corporation has decided to open a few more collection centres in the business district area
Assumptions: I. The people in the area may welcome the decision
II. Hence forth, there may be less time required by the customer for paying electricity bill
Question: 18
Statement: Films have become indispensable for the entertainment of people
Assumptions: I. Films are the only media of entertainment
II. People enjoy films

Question: 19
Statement: Vitamins E tablets improve circulation; keep your complexion in a glowing condition
Assumptions: I. People like a glowing complexion
II. Complexion becomes dull in the absence of circulation

PART - II INTERPRETATION

Directions: In each of the following questions, a statement is given, followed by two conclusions, or ideas supposed to be contained in the original statement. Examine each conclusion given below and mark your answer as (a) Only I follows (b) Only II follows (c) Both I & II follow (d) None of these

Question: 1
Statement: Walking is good for health
Conclusions: I. All healthy people go for walking
II. Only walking makes you healthy

Question: 2
Statement: Company Y has marketed the product. Go ahead; purchase it if price and quality are your considerations.
Conclusions: I. The product must be good in quality.
II. The price of the product must reasonable.

Question: 3
Statement: A neurotic is a non-stupid person who behaves stupidly.
Conclusions: I. Neuroticism and stupidity go hand in hand.
II. Normal persons behave intelligently.

Question: 4
Statement: India’s economy is depending mainly on forests.
Conclusions: I. Trees should be preserved to improve Indian economy.
II. India wants only maintenance of forests to improve economic conditions.

Question: 5
Statement: This world is neither good nor evil; each man manufactures a world for himself.
Conclusions: I. Some people find this world quite good.
II. Some people find this world quite bad.
Question: 6
Statement: Company X has a record of manufacturing cameras of quality and the latest design so that you do not spoil even a single shot irrespective of the weather conditions.
Conclusions: I. No other company except X is reputed in the camera industry  
II. Any one can take an acceptable shot with camera X

Question: 7
Statement: Recent trends also indicate that the number of child migrants in large cities is increasing. These children leave their families to join the ranks of urban poor doing odd jobs in markets, workshops, hotels or in service sectors.
Conclusions: I. Migration to big cities should be checked  
II. The plight of poor children should be thoroughly studies.

Question: 8
Statement: After this amendment to the Constitution, no child below the age of 14 years will be employed to work in any factory or mine or engaged in any other hazardous employment.
Conclusions: I. Before this amendment, children below 14 years were employed to work in factory or mine 
II. The employees must now abide by this amendment to the Constitution.

Question: 9
Statement: Domestic demand has been increasing faster than the production of indigenous crude oil
Conclusions: I. Crude oil must be imported  
II. Domestic demand should be reduced

Question: 10
Statement: All the organized persons find time for rest. Sunita, in spite of her very busy schedule, finds time for rest.
Conclusions: I. Sunita is an organized person 
II. Sunita is an industrious person

Question: 11
Statement: National Aluminium Company has moved India from a position of shortage to self-sufficiency in the metal
Conclusions: I. Previously, India had to import aluminium  
II. With this speed, it can soon become a foreign exchange earner

Question: 12
Statement: Parents are prepared to pay any price for an elite education to their children
Conclusions: I. All parents these days are very well off.  
II. Parents have an obsessive passion for a perfect development of their children through good schooling
PART - III DEDUCTION

Direction: In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically following from the two given statements, disregarding commonly known facts. Give answer (a) Only conclusion I follows (b) Only conclusion II follows (c) Both conclusion I & II follows (d) None of these.

Question: 1
Statement: Horse is a bird. Some birds are clouds. So,
Conclusion: I. Horse is a cloud  
II. Some clouds are birds

Question: 2
Statement: All tables are ants. Some ants are chairs. So,
Conclusion: I. Some tables are chairs  
II. Some chairs are tables

Question: 3
Statement: No man is a monkey. John is man. So,
Conclusion: I. John is not a monkey
II. John is a monkey

Question: 4
Statement: All boys are mothers. All mothers are fathers. So,
Conclusion: I. All mothers are boys
II. All boys are fathers

Question: 5
Statement: All hens are swans. No swan is a chair. Therefore,
Conclusion: I. No chair is hen
II. No hen is chair

Question: 6
Statement: All children are innocent. Some animals are innocent. Therefore,
Conclusion: I. Some animals are children
II. Some children are animals

Question: 7
Statement: Only first divisioners are admitted. Ram is first divisioner so,
Conclusion: I. Ram is admitted
II. All admitted are first divisioners

Question: 8
Statement: Sounds are not visible. Colours are not sounds So,
Conclusion: I. Colours are not visible
II. No visible thing is colour

Question: 9
Statement: Light removes darkness. Aluminium is light, so,
Conclusion: I. Aluminium removes darkness
II. Aluminium is darkness

Question: 10
Statement: All nouns are verbs. All verbs are adjectives. Therefore,
Conclusion: I. Some nouns are adjectives
II. Some adjectives are nouns

Question: 11
Statement: All dogs are pigs. Some pigs are not hen. Therefore
Conclusion: I. No hen is dog
II. No dog is hen

Question: 12
Statement: Some boys are men. No man is black. So,
Conclusion: I. Some boys are not black
II. Some men are boys
Question: 13
Statement: All dresses are shoes. No shoes is brown. Therefore,
Conclusion: I. No dresses are brown
II. Some shoes are dresses

Question: 14
Statement: All students is my class are intelligent. Rohit is not intelligent. So,
Conclusion: I. Rohit is not student of my class
II. Rohit must work hard

Question: 15
Statement: All poets are readers. No readers is wise. So,
Conclusion: I. No poet is wise
II. All readers are poets

Question: 16
Statement: All teachers are good. Some women are teachers. So,
Conclusion: I. All good teachers are women
II. Some women are good

Question: 17
Statement: All books are friends. All friends are dangerous. Therefore,
Conclusion: I. Some dangerous things are books
II. Some books are dangerous things

PART - IV EVALUATION

Directions: Examine the statements given below. Every statement is followed by an argument either positive or negative, decide which one strongly supports the statement and which one is weak. Then mark your answer as (a) Only argument I is strong (b) Only argument II is strong (c) Both arguments I and II are strong (d) None of these

Question: 1
Statement: Should number of holidays of Government employees be reduced?
Arguments: I. Yes. Our Government employees are having maximum number of holidays among the other countries of the world
II. No. it will lead to decreased productivity of govt. offices

Question: 2
Statement: Should there be reservation of seats and posts on communal basis?
Arguments: I. Yes, it will check most of the inter-communal biases
II. No. Ours is a secular state
Question: 3
Statement: Should women entrepreneurs be encouraged?
Arguments:
I. Yes. They will help in women’s empowerment development of the country
II. Yes. They will reduce the burden on economic development

Question: 4
Statement: Should government spend huge amounts of money in international sports?
Arguments:
I. No. This money can be utilized for upliftment of the poor
II. Yes. Sports persons will be frustrated and will not get international exposure

Question: 5
Statement: Should there be a complete ban on selling drugs near schools?
Arguments:
I. Yes. Children’s health is spoiled by using them.
II. No. It will affect the business of shop keeper

Question: 6
Statement: Should a total ban be put on trapping wild animals?
Arguments:
I. Yes. Trappers are making a lot of money
II. No. Ban on hunting and trapping are not effective

Question: 7
Statement: Should telecasting feature films be stopped?
Arguments:
I. Yes. Young children are misguided by the feature films.
II. This is the only way to educate the masses

Question: 8
Statement: Should school education be made free in India?
Arguments:
I. Yes. This is the only way to improve the level of literacy.
II. It would add to the already heavy burden on the exchequer

Question: 9
Statement: Should government jobs in rural areas have more incentives?
Arguments:
I. Yes. Incentives are essential for attracting government servants there.
II. No. Rural areas are already cheaper, healthier and less complex than urban areas. So, why offer extra incentives

Question: 10
Statement: Should India stop missile development?
Arguments:
I. Yes. The U.S.A. desires so.
II. No. The nation must always remain up to date in its defense preparedness
Question: 11
Statement: Should an organization like UNO be dissolved?
Arguments:
I. Yes. With cold war coming to an end, such organizations have no role to play.
II. No. In the absence of such organizations there may be a world war.

Question: 12
Statement: Is monarchy better than democracy?
Arguments:
I. Yes. If the chair has one confirmed ruler, there are no ambitious aspirants fighting for it.
II. No. People are more contented and happy in democracy.

Question: 13
Statement: Should Doordarshan be given autonomous status?
Arguments:
I. Yes. It will help Doordarshan to have fair and impartial coverage of all important events.
II. No. The coverage of events will be decided by a few who may not have healthy outlook.

Question: 14
Statement: Should public holidays be declared on demise of important national leaders?
Arguments:
I. No. Such unscheduled holidays hamper national progress.
II. Yes. People would like to pay their homage to the departed soul.

Question: 15
Statement: Is cutting of trees be banned altogether?
Arguments:
I. Yes. It is very much necessary to do so to restore ecological balance.
II. No. A total ban would harm timber-based industries.

Question: 16
Statement: Is the Government justified in spending so much on defence?
Arguments:
I. Yes. Safety of the country is of prime importance.
II. No. During peace, this money could be used for the development of the country.

Question: 17
Statement: Should judiciary be independent of the executive?
Arguments:
I. Yes. This would help curb the unlawful activities of the executive.
II. No. The executive would not be able to take bold measures.

Question: 18
Statement: Should so much money be spent on rural education?
Arguments:
I. Yes. It is an essential component for national development.
II. No. It leads to wastage of resources.
Question: 19
Statement: Should untouchability be banned in India?
Arguments: I. No. Menial people deteriorate the living standard of society.
II. Yes. All people should be equally treated in a democratic country like India.

Question: 20
Statement: Should there be a complete ban on child-labour in India?
Arguments: I. No. This will lead to thousands of people in poverty.
II. Yes. Children will not get education.

Question: 21
Statement: Is caste based reservation policy for women justified?
Arguments: I. Yes. The step is a must to bring upliftment for women.
II. No. It obstructs the establishments of a classless society.
### SCORING KEY – CRITICAL THINKING ABILITY TEST

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MANONMANIAM SUNDARANAR UNIVERSITY - THIRUNELVELI.

PROBLEM SOLVING ABILITY TEST
(by Deepa R.P. & Dr. M. Sadanandan)
2010 - 2011
ROUGH DRAFT

Instructions: Dear students,

This test designed for checking the ability in problem solving. The test consists of items related to number series, figural problems, missing parts and word problems. Read the following items carefully, identify the problem and select the correct solution. For each item four alternatives namely a, b, c, d are given. Write your response in the box given in the left side.

I Here the problem figures are given. Find the answer figure from among the given alternatives.

01. Find the next figure for problem figure

Answer figure
(a)  (b)  (c)  (d)  

02.

(a)  (b)  (c)  (d)  

03.

04. Please find the figures continuing the series

(a)  (b)  (c)  (d)  

05. Please find the figures continuing the series

06. Please find the figures continuing the series

07. Please find the figures continuing the series

08. Please find the figures continuing the series

09. Please find the figures continuing the series

10. Please find the figures continuing the series

11. Please find the odd one
12. Find the missing part of the following

13. Find the missing part of the following

14. Find the missing part of the following

15. Find the missing part of the following

16. Find the missing part of the following
17. Find the missing part of the following

18. Find the missing part of the following

19. Please find the odd one

20. Find the missing term

21. Find the wrong term in the number series.

22. Find the next term of a letter series

23. Find the next term of a letter series
24. Find the missing character from among the given alternatives.

(a) 625  (b) 25   (c) 125  (d) 156

25. Find the missing character from among the given alternatives.

(a) 115  (b) 130  (c) 135  (d) 140

26. Find the missing character from among the given alternatives.

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(a) 5  (b) 4  (c) 3  (d) 2

27. Find the missing character from among the given alternatives.

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<td>64B</td>
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<tr>
<td>9C</td>
<td>4A</td>
<td>16B</td>
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(a) 2C  (b) 8C  (c) 16B  (d) 6A

28. Find the missing character from among the given alternatives.

(a) 4  (b) 305  (c) 343  (d) 729

29. Find the missing character from among the given alternatives.
30. Find the missing character from among the given alternatives.

(a) 72  (b) 70  (c) 68  (d) 66

31. Find the missing character from among the given alternatives.

(a) 0  (b) 8  (c) 125  (d) 216

32. Find the missing character from among the given alternatives.

(a) 14  (b) 2  (c) 3  (d) 4

33. Find the missing character from among the given alternatives.
34. Find the missing character from among the given alternatives.

(a) 33  (b) 145  (c) 135  (d) 18

35. Find the missing character from among the given alternatives.

(a) 1    (b) 731  (c) 625  (d) 2031

36. Find the missing character from among the given alternatives.

(a) 262  (b) 622  (c) 631  (d) 820

37. Find the missing character from among the given alternatives.

(a) 14  (b) 22  (c) 32  (d) 320

38. Find the missing character from among the given alternatives.
39. If 53+31 = 2; 45+27 = 1; 69+32 = 3 What is 97+26?
   (a) 1  (b) 2  (c) 3  (d) 4

40. If 5 & 3, 8 & 6, 9 & 4 & 2 & 7 charge themselves mutually, what will 84325 becomes
   (a) 65937  (b) 69753  (c) 96537  (d) 69573

III In such type problems and situations are given. Read the problems carefully and select the correct solutions from the given alternatives.

41. 30 years ago it would take a worker five hours make a chair. Today it takes him just 30 minutes.
   a) Man has become more industrious
   b) People work faster in order to avoid unemployment.
   c) Chairs have a shorter life cycle,
   d) Workers have more spare time.
   e) Productivity has increased

42. Drinking and driving causes many accidents.
   a) People drink too much alcohol
   b) People should not drive when over the legal limit,
   c) There is a chance of 20 percent to cause an accident by driving in drunk condition
   d) Alcohol diminishes driving skills,
   e) The police should carry out more breath analyzing tests.

43. Today is Wednesday. What will the fourth day from yesterday be?
   (a) Sunday  (b) Monday  (c) Friday  (d) Thursday  (e) Saturday

44. The day before the day before yesterday is three days after Saturday. What is today?
   (a) Sunday  (b) Monday  (c) Friday  (d) Thursday  (e) Saturday

45. Which lamp is the brightest?
   a) Lamp A is less bright than Lamp B
b) Lamp B is the brighter than Lamp C
c) Lamp C is as bright as Lamp D
d) Lamp B is brighter than Lamp D
e) Lamp D is brighter than Lamp A

(a) Lamp A  (b) Lamp B  (c) Lamp C  (d) Lamp D  (e) No solution

46. Who is the shortest?
   a) Oliver is as tall as Otto
   b) Bert is shorter than Ben
   c) Ben is taller than Otto
   d) Oliver is shorter than Bert

(a) Oliver  (b) Otto  (c) Bert  (d) Ben  (e) No

47. A trader buys tea for Rs.1200/- and sells it for Rs.1500/- per sack of tea he makes a profit of Rs. 50/- How many of sacks of tea did he have?

(a) 6 (b) 7 (c) 8 (d) 4

48. 87 Kgs of potatoes are distributed in two boxes. One box weighs 11 Kgs less than the other one. How many kilograms of potatoes does the lighter box contain ?

(a) 38 (b) 23 (c) 42 (d) 35

49. Aruna ranks twelfth in a class of forty six. What will be her rank from the last?

(a) 33 (b) 34 (c) 35 (d) 37

50. Kailash faces towards north. Turning to his right, he walks 25 meters. He then turns to his left and walks 30 meters, Next, he moves 25 metres to his right. He then turns to right again and walks 55 metres, finally to the right and moves 40 metres. In which direction is he now from his starting point?

(a) South - West (b) South (c) North - West (d) South - East

51. A man is facing North - West. He turns 90° in the clockwise direction and then turns 135° in the ant-clockwise direction. Which direction is he facing now?

(a) East (b) West (c) North (d) South

52. Anu goes 30 metres North, then turns right and walks 40 metres, then again turns right and walks 20 metres, then again turns right and walks 40 metres. How many metres is he from his original position

(a) 0 (b) 10 (c) 20 (d) 40

53. Starting from a point P, Sachin walked 20 metres towards South. He turned left and walked 30 metres. He then turned left and walked 20 metres. He again turned left and walked 40 metres and reached a point Q. How far and in which direction is the point Q from the point P?

(a) 20 m West  (b) 10 m East  (c) 10 m West  (d) 10 m North
54. If A is to the south of B and C is to the east of B, in what direction is A with respect to C?
   (a) North - East  (b) North - West  (c) South - East  (d) South - West

55. Of the six members of a panel sitting in a row. A is to the left of D, but on the right of E. C is on the right of X, but is on the left of B who is to the left of F. Which two members are sitting right in the middle?
   (a) A and C  (b) C and B  (c) D and B  (d) D and C

56. A, B, C and D are playing cards. A and B are partners. D faces towards North. If A faces towards West, then who faces towards South?
   (a) B  (b) C  (c) D  (d) Date inadequate

57. If South - East is called ‘East’, North - West is called ‘West’, South - West is called ‘South’ and so on, what will ‘North’ be called?
   (a) East  (b) North - East  (c) North - West  (d) South

58. A clock is so placed that at 12 noon its minute hand points towards North - East. In which direction does its hour hand point at 1.30 p.m.?
   (a) North  (b) South  (c) East  (d) West

59. A shepherd had 17 sheep. All but nine died How many was he left with
   (a) Nil  (b) 8  (c) 9  (d) 17

60. A bird shooter was asked how many birds he had in the bag. He replied that there were all sparrows but six, all pigeons but six, and all docks but six, How many birds had he in all?
   (a) 9  (b) 18  (c) 27  (d) 36

61. What is the smallest number of ducks that could swim in this formation. two ducks in front of duck, two ducks behind a duck and a duck between two ducks?
   (a) 3  (b) 5  (c) 7  (d) 9

62. A group of 1200 persons consisting of captains and soldiers is traveling in a train. For every 15 soldiers there is one captain. The number of captains in the group is
   (a) 85  (b) 80  (c) 75  (d) 70

63. Aruna cut a cake into two halves and cuts one half into smaller pieces of equal size. Each of the small pieces is twenty grams in weight. If she has seven pieces of the cake in all with her, how heavy was the original cake?
   (a) 120 grams  (b) 140 grams  (c) 240 grams  (d) 280 grams

64. First bunch of bananas has \(\frac{1}{4}\) again as many bananas as a second bunch. If the second bunch has 3 bananas less than the first bunch, then the number of bananas in the first bunch are
65. In a certain office, 1/3 of the workers are women, 1/2 of the women are married and, 1/3 of the married women have children. If 3/4 of the men are married and 2/3 of the married have children, What part of workers are without children?
(a) 5/18  (b) 4/9  (c) 11/18  (d) 7/36

66. A is three times as old as B, C was twice as old as A four years ago. In four years time, A will be 31. What is the present age of B and C?
(a) 9, 46  (b) 9, 50  (c) 10, 46  (d) 10

67. A father tells his son, “T was of your present age when you were born. “If the father is 36 now, how old was the boy 5 years back?
(a) 13  (b) 15  (c) 17  (d) 20

68. In a group of 15 people 7 read French, 8 read English while 3 of them read none of these two. How many of them read French and English both?
(a) 0  (b) 3  (c) 4  (d) 5

69. The mean of five consecutive number is 7. Which is the highest number?
(a) 8  (b) 10  (c) 7  (d) 9

70. If the price of silver is Rs.3,810 per 100 gms. What will be the approximate value of 15.7 gm?
(a) 900  (b) 65  (c) 600  (d) 750

71. One third of three forth of a number is 30 What is the number?
(a) 90  (b) 120  (c) 150  (d) 80

72. A train running at speed of 90 km / hr crosses a platform double its length in 36 seconds. Find length of platform.
(a) 450 m  (b) 200 m  (c) 300 m  (d) 600 m

73. In the following number series one number is wrong. Find the number 11, 13, 19, 26, 35, 46, 59
(a) 19  (b) 46  (c) 13  (d) 26

74. An amount of money is to be distributed among P, Q & R in the ratio 3:5:6. If R gets. Rs.400 more than Q. What is the difference between ‘P’s and ‘Q’s share?
(a) Rs.1,200/-  (b) Rs.800/-  (c) Rs.1,600/-  (d) Rs.1,000/-

75. Sixteen men complete a work in twelve days. In how many days will 24 men complete the same work?
(a) 4  (b) 8  (c) 6  (d) 3
76. The average age of 24 boys in a class is 11. When the teacher’s age is included the average increases by one. What is the age of teacher?
   (a) 34 years  (b) 42 years  (c) 36 years  (d) 48 years

77. Amit purchased a book with a 10% discount on the labeled price. How much did he pay if the labeled price was Rs.600?
   (a) Rs.480  (b) Rs.360  (c) Rs.540  (d) Rs.340

78. A boat goes 12 km down stream and then comes back in 3 hours. If the speed of the current is 3 km/hr, the speed of boat in still water is
   (a) 9 km / hr  (b) 8 km / hr  (c) 6 km / hr  (d) 12 km / hr

79. A wheel rotates 10 times every minute and moves 20 cm during each rotation. How many centimeters does the wheel move in one hour?
   (a) 200  (b) 600  (c) 1200  (d) 12000

80. Walking $\frac{3}{4}$th of his usual rate, a man is 2½ hours late. The usual time is
   (a) 7½ hrs  (b) 3½ hrs  (c) 3¾ hrs  (d) 7/8 hrs

81. If a man can swim downstream at 6 kmph and upstream at 2 kmph, his speed in still water is
   (a) 4 kmph  (b) 2 kmph  (c) 3 kmph  (d) 2.5 kmph

82. Walking $\frac{3}{4}$th of his usual rate, a man is 2½ hours late. The usual time is
   (a) 7¼ hrs  (b) 3½ hrs  (c) 3¾ hrs  (d) 7/8 hrs

83. A walks at 4 km an hour, and 4 hours after his start, 'B' bicycles him at 10 km an hour. Find out how far from the start does 'B' catch up with 'A'?
   (a) 16.7 km  (b) 18.6 km  (c) 21.5 km  (d) 26.7 km

84. Two pipes A and B would fill a tank in 30 & 36 minutes respectively. Both pipes being opened, Find when the first pipe must be turned off so that the tank may be filled in 18 minutes?
   (a) after 20 Mts.  (b) after 15 Mts.  (c) after 13 Mts.  (d) after 17 Mts.

85. An electric pump can fill a tank in 3 hours. Because of a leak in the tank, it took 3½ hours to fill the tank. The leak can drain out all the water of the tank in
   (a) 21 hrs  (b) 24 hrs  (c) 10½ hrs  (d) 12 hrs.

86. Two candles A and B of the same length were lighted at the same time, after 5 minutes the candle A was twice as long as the candle B. After 6 minutes the candle A was three times as long as candle B. How long would candle B take to burn completely?
   (a) $7\frac{1}{2}$ Mts.  (b) 10 Mts.  (c) 12 Mts.  (d) 15 Mts.

87. A is twice as good a works man as B. Together they can do a job in 12 days in how many days B will finish it alone?
88. A person was appointed in the pay scale of Rs.700 - 40 - 1500. Find in how many years he will reach maximum of the scale?
(a) 21 yrs  (b) 20 yrs  (c) 40 yrs  (d) 18 yrs

89. The proportion of copper and Zinc in an alloy is 13:7. The quantity of zinc contained in the 100 Kg of alloy is
(a) 20 Kg  (b) 60 Kg  (c) 38 Kg  (d) 65 Kg

90. If by selling 110 mangoes the cost price of 120 mangoes is realized, the gain percent is
(a) 11.1/9%  (b) 9 1/9 %  (c) 10 10/11%  (d) 9 1/11%

91. If the population of town is 64,000 and it grows annually at a rate of 10% what is the increase in the population at the end of 3 years?
(a) 21184  (b) 20814  (c) 21888  (d) 20614

92. The area of a rectangular field is 144 sq.m. If its length is increased by 5 m, its area increases by 40 sq.m. The length of the field is
(a) 12 m  (b) 14.4 m  (c) 16 m  (d) 18 m
93. Six friends A, B, C, D, E & F are sitting in a closed circle facing the centre. E is left of D, C is between A & B, F is between E & A who is left of B?
   (a) A   (b) C   (c) D   (d) E

94. Anu is taller than Anand but shorter than Seema. Krishna is taller than Rohan but shorter than Anand. Dhiraj is taller than Krishna but shorter than Seema. Who among them is the tallest?
   (a) Rohan (b) Seema (c) Krishna (d) Dhiraj

95. Five boys took part in a race. Raj finished before Mohan but behind Gaurav. Ashish finished before Snachit but behind Mohit. Who won the race?
   (a) Ranh (b) Gaurav (c) Mohan (d) Ashish

96. Five men A, B, C, D and E read a newspaper. The one who reads first gives it to C. The one who reads last had taken from A, E was not the first or last to read. There were two readers between B and A. Who read the newspaper last?
   (a) A   (b) B   (c) C   (d) D

97. In a family there are 5 brothers who are not yet married. Each brother has a sister and the mother alive. How many women are there?
   (a) 5   (b) 10   (c) 6   (d) 2

98. A man Z goes to a party hosted by his brother 'A' having a daughter 'B' who is dancing with her brother 'C' what is Z to C?
   (a) Father   (b) Nephew   (c) Uncle   (d) Son

99. There are some horse and hens in a ground. The number of heads is 79 and the number of legs is 200. Find the number of horses.
   (a) 21   (b) 35   (c) 22   (d) 42

100. A person attend 50 questions. He gets 2 mark for correct answer and he losses $2\frac{1}{2}$ mark for wrong answer. He got 70 mark finally. Then how many wrong answer?
    (a) 12   (b) 15   (c) 20   (d) 18
MANONMANIAM SUNDARANAR UNIVERSITY - THIRUNELVELI.

PROBLEM SOLVING ABILITY TEST

(By Deepa R.P. & Dr. M. Sadanandan)

2010 - 2011

Instructions:

Dear students,

This test is designed for checking the ability in problem solving. The test consists of items related to number series, figural problems, missing parts and word problems. Read the following items carefully, identity the problem and select the correct solution. For each item four alternatives namely a, b, c, d are given. Write your response in the box given in the right.

1. Here the problem figures are given. Find the answer figure from among the given alternatives.

01. [Figure 1: A series of figures with options a, b, c, d]

(a) [Figure 2: A series of figures with options a, b, c, d]

02. Please find the figures continuing the series

03. Please find the figures continuing the series

[Diagram of figures a, b, c, d, e with options a, b, c, d, e]
04. Please find the figures continuing the series

05. Please find the figures continuing the series

06. Please find the figures continuing the series

07. Please find the figures continuing the series

08. Please find the odd one

09. Find the missing part of the following

10. Find the missing part of the following
11. Find the missing part of the following

12. Find the missing part of the following

13. Find the missing part of the following

14. Find the missing part of the following

15. Please find the odd one

II In the following items a series of numbers or letters are given. Find the missing character from among the given alternatives.
16. Find the missing term

\[
\begin{array}{cccc}
0 & 2 & 8 & 14 \\
\end{array}
\]

(a) 24 (b) 22 (c) 20 (d) 18

17. Find the wrong term in the number series.

\[
\begin{array}{cccccccc}
1 & 3 & 7 & 15 & 27 & 63 & 127 \\
\end{array}
\]

(a) 7 (b) 15 (c) 27 (d) 63

18. Find the next term of a letter series

\[
\begin{array}{cccccccc}
W & V & T & S & Q & P & N & M \\
\end{array}
\]

(a) I J (b) J I (c) J K (d) K J

19. Find the missing character from among the given alternatives.

\[
\begin{array}{ccccccc}
\text{25} & & & & \text{15} & & \\
\text{10} & & & & \text{289} & & \\
\text{7} & & & & \text{?} & & \\
\text{2} & & & & \text{13} & & \\
\end{array}
\]

(a) 625 (b) 25 (c) 125 (d) 156

20. Find the missing character from among the given alternatives.

\[
\begin{array}{ccc}
5 & 6 & 8 \\
4 & 9 & 7 \\
\end{array}
\]

\[
\begin{array}{ccc}
6 & 5 & 4 \\
7 & 9 & 8 \\
\end{array}
\]

\[
\begin{array}{ccc}
3 & 5 \\
2 & 7 \\
\end{array}
\]

(a) 115 (b) 130 (c) 135 (d) 140

21. Find the missing character from among the given alternatives.

\[
\begin{array}{ccc}
? & 1 & 2 \\
21 & 22 & 40 \\
1 & 2 & 5 \\
\end{array}
\]

(a) 5 (b) 4 (c) 3 (d) 2
22. Find the missing character from among the given alternatives.

(a) 4  (b) 305  (c) 343  (d) 729

23. Find the missing character from among the given alternatives.

(a) 72  (b) 70  (c) 68  (d) 66

24. Find the missing character from among the given alternatives.

(a) 0  (b) 8  (c) 125  (d) 216

25. Find the missing character from among the given alternatives.

(a) 14  (b) 2  (c) 3  (d) 4

26. Find the missing character from among the given alternatives.

(a) 13  (b) 14  (c) 20  (d) 21

27. Find the missing character from among the given alternatives.
28. Find the missing character from among the given alternatives.

(a) 33 (b) 145 (c) 135 (d) 18

29. If $53 + 31 = 2$; $45 + 27 = 1$; $69 + 32 = 3$ What is $97 + 26$?

(a) 1 (b) 2 (c) 3 (d) 4

III Certain problems and Solutions are given below. Read the problems carefully and select the correct solutions from the given alternatives.

30. 30 years ago it would take a worker few hours to make a chair. Today it takes him just 30 minutes.
   
   f) Man has become more industrious
   g) People work faster in order to avoid unemployment.
   h) Chairs have a shorter life cycle,
   i) Workers have more spare time.
   j) Productivity has increased

31. Drinking and driving causes many accidents.
   
   f) People drink too much alcohol
   g) People should not drive when drunk over the legal limit,
   h) There is a chance of 20 percent to cause an accident by driving in drunk condition
   i) Alcohol diminishes driving skills,
   j) The police should carry out more breath analyzing tests.

32. Today is Wednesday. What will be the fourth day from yesterday be?
   
   (a) Sunday (b) Monday (c) Friday (d) Thursday (e) Saturday
33. Which lamp is the brightest?
   f) Lamp A is less bright than Lamp B
   g) Lamp B is the brighter than Lamp C
   h) Lamp C is as bright as Lamp D
   i) Lamp B is brighter than Lamp D
   j) Lamp D is brighter than Lamp A
   (a) Lamp A  (b) Lamp B  (c) Lamp C  (d) Lamp D  (e) No solution

34. A trader buys tea for Rs.1200/- and sells it for Rs.1500/- per sack of tea. He makes a profit of Rs. 50/- How many of sacks of tea did he have?
   (a) 6  (b) 7  (c) 8  (d) 4

35. 87 Kg of potatoes are distributed in two boxes. One box weighs 11 Kg less than the other one. How many kilograms of potatoes does the lighter box contain?
   (a) 38  (b) 23  (c) 42  (d) 35

36. Aruna ranks twelfth in a class of forty six. What will be her rank from the last?
   (a) 33  (b) 34  (c) 35  (d) 37

37. Starting from a point P, Sachin walked 20 metres towards South. He turned left and walked 30 metres. He then turned left and walked 20 metres. He again turned left and walked 40 metres and reached a point Q. How far and in which direction is the point Q from the point P?
   (a) 20 m West  (b) 10 m East  (c) 10 m West  (d) 10 m North

38. A clock is so placed that at 12 noon its minute hand points towards North - East. In which direction does its hour hand point at 1.30 p.m.?
   (a) North  (b) South  (c) East  (d) West

39. What is the smallest number of ducks that could swim in this formation. Two ducks in front of duck, two ducks behind a duck and a duck between two ducks?
   (a) 3  (b) 5  (c) 7  (d) 9

40. In a group of 15 people 7 read French, 8 read English while 3 of them read none of these two. How many of them read French and English both?
   (a) 0  (b) 3  (c) 4  (d) 5

41. The mean of five consecutive number is 7. Which is the highest number?
   (a) 8  (b) 10  (c) 7  (d) 9
42. If the price of silver is Rs.3,810 per 100 gms. What will be the approximate value of 15.7 gm?
   (a) 900  (b) 65  (c) 600  (d) 750

43. One third of three forth of a number is 30 What is the number?
   (a) 90  (b) 120  (c) 150  (d) 80

44. A train running at speed of 90 km / hr crosses a platform double its length in 36 seconds. Find the length of platform.
   (a) 450 m  (b) 200 m  (c) 300 m  (d) 600 m

45. In the following number series one number is wrong. Find the number 11, 13, 19, 26, 35, 46, 59
   (a) 19  (b) 46  (c) 13  (d) 26

46. Sixteen men complete a work in twelve days. In how many days will 24 men complete the same work?
   (a) 4  (b) 8  (c) 6  (d) 3

47. The average age of 24 boys in a class is 11. When the teacher’s age is included the average increases by one. What is the age of the teacher?
   (a) 34 years  (b) 42 years  (c) 36 years  (d) 48 years

48. A boat goes 12 km down stream and then comes back in 3 hours. If the speed of the current is 3 km/hr, the speed of boat in still water is
   (a) 9 km / hr  (b) 8 km / hr  (c) 6 km / hr  (d) 12 km / hr

49. If a man can swim down a stream at 6 kmph and upstream at 2 kmph, his speed in still water is
   (a) 4 kmph  (b) 2 kmph  (c) 3 kmph  (d) 2.5 kmph

50. Walking ¾ th of his usual rate, a man is 2½ hours late. The usual time is
   (a) 7½ hrs  (b) 3½ hrs  (c) 3¼ hrs  (d) 7/8 hrs

51. Two pipes A and B would fill a tank in 30 & 36 minutes respectively. Both pipes being opened, find when the first pipe must be turned off so that the tank may be filled in 18 minutes?
   (a) after 20 Mts.  (b) after 15 Mts.  (c) after 13 Mts.  (d) after 17 Mts.

52. An electric pump can fill a tank in 3 hours. Because of a leak in the tank, it took 3½ hours to fill the tank. The leak can drain out all the water of the tank in
   (a) 21 hrs  (b) 24 hrs  (c) 10½ hrs  (d) 12 hrs.
53. Two candles A and B of the same length were lighted at the same time, after 5 minutes the candle A was twice as long as the candle B. After 6 minutes the candle A was three times as long as candle B. How long would candle B take to burn completely?  
(a) 7½ Mts.  (b) 10 Mts.  (c) 12 Mts.  (d) 15 Mts.

54. If the population of a town is 64,000 and it grows annually at a rate of 10% what is the increase in the population at the end of 3 years?  
(a) 21184  (b) 20814  (c) 21888  (d) 20614

55. The area of a rectangular field is 144 sq.m. If its length is increased by 5 m, its area increases by 40 sq.m. The length of the field is  
(a) 12 m  (b) 14.4 m  (c) 16 m  (d) 18 m

56. Six friends A, B, C, D, E & F are sitting in a closed circle facing the centre. E is left of D, C is between A & B, F is between E & A who is left of B?  
(a) A  (b) C  (c) D  (d) E

57. Anu is taller than Anand but shorter than Seema. Krishna is taller than Rohan but shorter than Anand. Dhiraj is taller than Krishna but shorter than Seema. Who among them is the tallest?  
(a) Rohan  (b) Seema  (c) Krishna  (d) Dhiraj

58. There are some horse and hens in a ground. The number of heads is 79 and the number of legs is 200. Find the number of horses.  
(a) 21  (b) 35  (c) 22  (d) 42
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Appendix - F

MANONMANIAM SUNDARANAR UNIVERSITY - THIRUNELVELI.
CO-OPERATIVE LEARNING ATTITUDE SCALE
by
Deepa. R.P. and Dr. M. Sadanandan.
2010 - 2011
(ROUGH DRAFT)

Instructions :-

Co-operative learning is one of the innovative learner centered approaches. Here some statements related to co-operative learning are given below. Please read each sentence carefully and mark your response by putting a tick (✓) mark in any one of the alternatives by strongly agree (SA), Agree (A), undecided (UD), Disagree (DA) and strongly Disagree (SD).

01. Co-operative learning enhances interpersonal skills.

02. Co-operative learning activities ensure all group members actively work together

03. Individual achievement cannot be measured through co-operative learning

04. Only specially trained teacher can teach co-operative learning effectively

05. Co-operative learning cannot be implemented in an over crowded class room

06. All the subjects cannot be taught through co-operative learning

07. Co-operative learning is only suitable for teaching Arts subjects

08. Co-operative learning promotes discussion which results in long term retention.
09. Co-operative learning is not suitable for elementary level

10. Co-operative learning holds bright students back.

11. Discipline cannot be maintained when co-operative learning is used.

12. Co-operative learning helps deeper understanding of the content.

13. Implementing co-operative learning takes too much of time.

14. Co-operative learning promotes team spirit among the students.

15. Co-operative learning fosters positive attitude towards learning.

16. All the group members will not work successfully in co-operative learning.

17. Co-operative learning is not suitable for slow learners.


19. Use of co-operative learning increases academic achievement.


22. Co-operative learning can provide healthy and productive relationship among students.

23. Co-operative learning is not suitable in
nurturing educational excellence.

24. Present syllabus is not suitable in implementing co-operative learning.

25. Co-operative learning is more burden to teachers.


27. Co-operative learning helps in advance learning.

28. Most of the teachers are not aware of co-operative learning.

29. Co-operative learning works on only homogenous groups.

30. True spirit of learning cannot be possible in co-operative learning.

31. Co-operative learning is not suitable for achieving the broad aims of teaching.

32. Co-operative learning contributes to forgetting as knowledge gained is unsystematic.

33. Co-operative learning promotes transfer of learning.

34. It equips them to suggest solution for the problem.

35. Knowledge obtained through co-operative learning can be applied in real life situation.

36. Co-operative learning develops positive interdependence.

37. Individual accountability is promoted through co-operative learning.
38. Co-operative learning develops systematic study habits.

39. Co-operative learning equips the learner to face practical life with confidence.
Appendix - G

MANONMANIAM SUNDARANAR UNIVERSITY - THIRUNELVELI.

CO-OPERATIVE LEARNING ATTITUDE SCALE

by

Deepa. R.P. and Dr. M. Sadanandan.

2010 - 2011

FINAL DRAFT

Instructions :-

Co-operative learning is one of the innovative learner centered approaches. Here, some statements related to co-operative learning are given below. Please read each sentence carefully and mark your response by putting a tick (✓) mark in any one of the alternatives by strongly agree (SA), Agree (A), undecided (UD), Disagree (DA) and strongly Disagree. (SD)

40. Co-operative learning cannot be implemented in an over crowded class room

41. All the subjects cannot be taught through co-operative learning

42. Co-operative learning is only suitable for teaching Arts subjects

43. Co-operative learning promotes discussion which results in long term retention.

44. Co-operative learning is not suitable for elementary level

45. Co-operative learning holds bright students back.

46. Discipline cannot be maintained when co-operative learning is used.

47. Co-operative learning helps deeper understanding of the content.
48. Co-operative learning promotes team spirit among the students.

49. Co-operative learning fosters positive attitude towards learning.

50. All the group members will not work successfully in co-operative learning.


52. Co-operative learning provides self motivation for learning.

53. Present syllabus is not suitable in implementing co-operative learning.

54. Co-operative learning is more burden to teachers.

55. Co-operative learning helps in advance learning.

56. True spirit of learning cannot be possible in co-operative learning.

57. It equips them to suggest solution for the problem

58. Co-operative learning develops positive interdependence.

59. Individual accountability is promoted through co-operative learning.

60. Co-operative learning equips the learner to face practical life with confidence.
01. Write the extent using Co-operative learning approach in teaching Mathematics / English / Science / in your class?

Always / Sometimes / Never

02. Write the suitability of Co-operative learning approach in terms of existing curricular and Administrative factors.

<table>
<thead>
<tr>
<th></th>
<th>Great extend</th>
<th>Some extend</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Syllabus</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
<tr>
<td>(ii) Time table</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
<tr>
<td>(iii) Examination system</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
</tbody>
</table>

03. Do you got any training related to Co-operative learning? Yes / No

04. Write your opinion regarding the reasons for not using Co-operative learning approach

<table>
<thead>
<tr>
<th></th>
<th>Great extend</th>
<th>Some extend</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of training</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
<tr>
<td>Lack of time</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
<tr>
<td>Rigid syllabus</td>
<td>GE</td>
<td>SE</td>
<td>N.A</td>
</tr>
</tbody>
</table>

05. Write the extent of practical difficulties identified by you in using Co-operative learning in teaching – learning process.

i) Inadequate knowledge about the co-operative learning approach teaching model

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

ii) Vast content

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

iii) Rigid time table

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

iv) Difficulty in class room management

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

v) Lack of Co-operation of school authorities

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

vi) Lack of Co-operation of colleagues

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

vii) Difficulty in maintaining discipline

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

viii) Lack of suitable teaching manuals

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
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</thead>
</table>

ix) Over crowded class room

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>

x) Lack of suitable evaluation measures

<table>
<thead>
<tr>
<th></th>
<th>GE</th>
<th>SE</th>
<th>NA</th>
</tr>
</thead>
</table>
xi) Students are easily distracted

xii) Lack of library facilities

xiii) Heavy work load of the teacher

xiv) Affect the examination oriented teaching

xv) Lack of interest in innovative practices

06. Whether this model is suitable for attaining the objectives in teaching – learning mathematics / science

1) To develop interest in mathematics

2) To develop scientific attitudes

3) To develop skill in doing mathematical problems

4) To develop speed and accuracy in calculations

5) To develop better achievement in mathematics

6) To promote higher order thinking

7) To develop scientific approach in problem

8) Helps solving to solve daily life problems

9) Help to inculcate scientific values

10) To promote Co-operative among them

07. Write the suggestions for the successful implementation of the coop learning
### Co-operative learning approach

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very High (VH)</th>
<th>High (H)</th>
<th>Moderate (M)</th>
<th>Low (L)</th>
<th>Very Low (VL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. Stimulate independent thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02. Helps to learn the difficult concept in a simple way</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>03. Learned concepts are retained for a long time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04. Promotes student's active participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>05. Brings closer to society</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>06. Inculcate social skills</td>
<td></td>
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<td></td>
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<tr>
<td>07. Discovery learning is possible</td>
<td></td>
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<tr>
<td>08. Helps to increase reasoning power</td>
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<td></td>
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<tr>
<td>09. Makes maths learning more meaningful</td>
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<tr>
<td>10. Provides opportunity for expressing ideas freely</td>
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<tr>
<td>11. Develops critical thinking</td>
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<td></td>
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<tr>
<td>12. Reduces fear of examination</td>
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<tr>
<td>13. Develops interest in participating scientific discussions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>14. Helps to understood social problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Develops interest in solving puzzles</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>16.</td>
<td>Develops good communication skills</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>17.</td>
<td>Develops leadership qualities</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>18.</td>
<td>Develops a spirit of Co-operation among students</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>19.</td>
<td>Makes healthy teacher – pupil interaction</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>20.</td>
<td>Improve decision making capacity</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>21.</td>
<td>Helps students to score high marks in examination</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>22.</td>
<td>Gets practices in processing skills</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>23.</td>
<td>Promotes divergent thinking</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>24.</td>
<td>Develops research aptitude</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>25.</td>
<td>Provides opportunity for the teacher to learn along with students</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>26.</td>
<td>Helps in mastery learning</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>27.</td>
<td>Develops healthy competition among students</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>28.</td>
<td>Reduces anxiety in mathematics learning</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>29.</td>
<td>Cater to the needs of the students who are</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>(i) Above average</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(ii) Average</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(iii) Below average</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>30.</td>
<td>Helps to develop the following skills</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>(i) Defining</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(ii) Inferring</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(iv) Analysing</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(v) Explaining</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
<tr>
<td>(vi) Interpreting data</td>
<td>VH</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>VL</td>
</tr>
</tbody>
</table>
MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI.

SOCIO ECONOMIC STATUS SCALE
2010 - 2011

by

Deepa R.P & Dr. M. Sadanandan

Instructions

Kindly fill in the details as required, put a (✓) mark wherever necessary. The information given by you will be kept strictly confidential.

01. Name: 
02. Sex: 
03. Age: 
04. Class: 
05. Religion: 
06. Community: 
07. Name of school: 
08. Type of management: (Govt/Govt. aided/Private)
09. Distance from your residence to your school ______ Kms.
10. How do you travel to the school?
11. By walking ( ), By bus ( ), By car ( ), By Cycle ( ), By train ( ), Any other ( ).
12. Order of birth: 1/2/3/4 ______________
13. Number of: (a) Brothers _______ (b) Sisters
14. Education of (a) Father
   (b) Mother
15. Occupation of (a) Father
   (b) Mother
16. Total monthly income of your family: Rs.
17. Type of home Concrete roof / Tiled roof / Tached roof
18. Who is your guardian?
   Father ( ) Mother ( ) Brother ( ) Sister ( ) Anybody else
19. In your home, do you have
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Electric connection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>ii.</td>
<td>Water pipe connection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>iii.</td>
<td>Cable connection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>iv.</td>
<td>Computer</td>
<td>Yes / No</td>
</tr>
<tr>
<td>v.</td>
<td>Internet connection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>vi.</td>
<td>Mobile</td>
<td>Yes / No</td>
</tr>
<tr>
<td>vii.</td>
<td>Home theatre</td>
<td>Yes / No</td>
</tr>
<tr>
<td>viii.</td>
<td>Television</td>
<td>Yes / No</td>
</tr>
<tr>
<td>ix.</td>
<td>Car</td>
<td>Yes / No</td>
</tr>
<tr>
<td>x.</td>
<td>Fridge</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xi.</td>
<td>Gas connection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xii.</td>
<td>Mixer</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xiii.</td>
<td>Grinder</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xiv.</td>
<td>Micro wave oven</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xv.</td>
<td>Washing machine</td>
<td>Yes / No</td>
</tr>
<tr>
<td>xvi.</td>
<td>Number of rooms in your house</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

20. Do you have separate room for studies?