1. PROJECTED AIDS.

2. In this module you have covered so far, the kinds of projected aids, projection system, filmstrip projector, slide projector, motion picture projector, overhead projector and opaque projector.

3. We will now take up TELEVISION. Television is also a projected aid. It is an electrically controlled projected aid.

4. There are two kinds of Television systems:
   (1) the broadcast or telecast television and
   (2) the Closed Circuit television generally known as CCTV.

5. Television like motion picture helps us to see and hear, and understand more deeply. It combines other media we have covered so far. This is an advantage of this medium.

6. Open your WORKBOOK, and go through the objectives for this unit, carefully. Take a minute.

7. Television like other projected aids provide us, with magnification, distribution, observation and motivation. With new technological advancement it gives education, the ability to record, preserve and reuse.
8. We have already covered under Unit-1, the advantages and capabilities of the medium. Now let us see how to operate the television receiver.

9. First you must have a place. How should that space be? Do you want complete darkness?

10. You set up the receiver, such that extraneous light does not reflect from the TV screen.

11. You may darken the room during day or when required, but you may leave some room lights at night that do not create glare on the TV screen.

12. Receiver height is the next consideration. When you sit on the chair your eye level is about 120 cm or 4 ft. above floor level. The bottom edge of the TV screen should be more than this height. You should not strain yourself while watching the TV.

13. We will discuss later the details of the viewing distance and various class-room settings.

14. You must be aware of the various controls to operate the receiver. The quality of picture is important and inferior picture affect learning and understanding.

15. You have a switch and a power cord. The plug is to be connected to the mains socket. Unless your set has built in voltage stabiliser, it is desirable to connect to the mains through voltage stabiliser. This will prevent defects due to improper voltage fluctuations.
16. REFER TO YOUR WORKBOOK, questions 1, 2 & 3.
Answer them in the space provided.
Take 3 minutes.

17. Answer to question 1 is (d).
The answer is "all the above"
Television combines all other media, all projected and non-projected materials like 16 mm motion picture, 35 mm slides and filmstrips, overhead projector, epidiascope, charts, posters, drawings, photographs, etc.

18. Answer to question 2 is (d).
The answer is "immediate reuse"
Motion picture can record both picture and sound, all projected aids can give magnification and also preserve. The television can show motion and give sound. But Television is the only medium which shows immediately an action in progress to a large group of audience at the same time.

19. Answer to question 3 is (b).
"Voltage stabiliser is provided in order to get appropriate voltage for avoiding defects".

20. We have seen that the position of the TV is an important factor. Next the voltage should be constant.

21. There are different kinds of sets. TV programmes are telecast from television studios. In India, the Doordarshan telecasts different programmes, on different frequencies. As the distance through which the programme can be transmitted is limited,
we have generally channel IV and most of the stations that are situated 200 KM away have same channel. The station nearer to Madras is Bangalore, and the channel for Bangalore is V.

22. There are single channel sets in which case you are not bothered to select the channel. If your set is a multi-channel set, select the proper channel by the operation of the key for channel selection.

23. Having selected the channel, you should do fine tuning through the tuner control.

24. The brightness and contrast are adjusted by the brightness and contrast control knobs.

25. You have a volume control for adjusting volume and a tone control for adjusting the tone.

26. You have the horizontal and vertical control knobs to adjust the horizontal and vertical holds.

27. Thus far, we discussed about the electrical switch, channel selector, fine tuning, volume and tone controls, the brightness and contrast controls.

28. Did we talk about the antenna? Oh God! We have forgotten about that. You can't see any picture without the antenna. The antenna or aerial may either be indoor or outdoor. Every TV set must have an antenna. The TV antenna must be connected to the TV set by an antenna cable which should have matching impedance which is normally 75 ohms.
29. You have set your TV, darkened your room, then checked the antenna connection. Now you may connect properly power cord through stabiliser and switch on the power.

30. Why do you see lines on the TV screen? Adjust fine tuning to get the exact station.

31. When the picture appears, adjust brightness and then the contrast.

32. Adjust volume, then tone, if tone control is provided separately.

33. Turn down volume and reduce brightness until viewing time;

34. Then make proper re-arrangements. Let us now see what some of these special adjustments are:

35. FINE TUNING. Carefully adjust the fine tuning knob, to obtain a clear picture.

36. In the Weston TV set, the fine tuning is situated below the channel selector, and you do the fine tuning with this piece of instrument.

37. BRIGHTNESS. The brightness control knob adjusts the amount of light coming from picture tube.

38. This adjustment is provided differently in different TV sets. Now you must adjust the picture contrast.
39. **CONTRAST.** Contrast is the ratio of black to white in the picture. You have to correlate the two adjustments - the brightness and contrast - to get the best picture.

40. **VERTICAL HOLD.** As in film, sometimes the picture rolls and the image seems to move upward or downward. It will not be stationary. Turn the *vertical control knob* to the left or right (clockwise or counter clockwise) until the picture stabilises on the screen.

41. **Horizontal Hold:** Sometimes the picture seems to become a series of narrow diagonal segments. The horizontal hold knob should be turned until the picture is stable on the screen. In some TV sets, this is provided inside the case.

42. Occasionally television reception will be unsatisfactory through no fault of your set or operation. These are Ghosts, snow and RF interference. Ghosts are usually caused by station signals reflected from obstacles between the transmitter and your antenna. You may adjust the antenna in the proper direction, i.e., toward the TV tower of the TV station.

43. Another effect is known as "SNOW" and snow is usually caused by weak signals. Now in Madras, we get Ceylon or Repavahini, and mostly we get snow effect. It can also be due to the inadequate signals emanating from the TV station.

44. **RADIO-FREQUENCY INTERFERENCE** may be caused by extraneous electric signals or you should obtain the assistance of the proper technical or servicing personnel to rectify this defect.
45. Refer to your WORKBOOK and answer questions 4, 5, 6, 7 & 8. You may take six minutes.
STOP PRESENTATION.

46. Answer to question 4:
If your answer is like this, you are right.
(Visuals only)

47. Answer to question No. 5 is the screen
(Visual only)

48. Answer to question 6 should be (d).
"All the above", because all these defects, ghosts,
snow on your TV screen and the R.F. interference
are not on account of any defect in your TV set.
There are extraneous reasons.

49. Answer to question 7 should be (c) i.e.
extraneous electrical signals. When a mixie is
operated in your house or a car is started, you
will find this defect.

50. Answer to question 8 is (a).
Ghosts are usually caused by the weak signals
coming from the TV station. An example for this
is the reception most of us receive from Repavahini -
the Ceylon transmission.

51. We believe that, when you operate the TV receiver,
you will be able to operate the set well, without
any more trouble. Consult the Training Officer at
the visual aid workshop, if you have difficulties.
52. Let us now take the video deck. We have the Weston Colour Video deck and Television receiver. We will learn to operate the colour TV receiver, and video deck. Let us see the important features of a video deck.

53. The video deck can play or record up to three hours.

54. This recorder can use only VHS-Pal system. The other system of video recording available as an International Standard is NTSC, SECAM - VHS and these systems are not compatible. So watch your video tape before you use them.

55. While the video deck can record programmes through a video camera, the TV can show the telecast programmes.

56. We can also play a video cassette on the video deck and watch pictures on the TV receiver.

57. The video cassette is compact and light in weight.

58. Still frame and frame by frame pictures can be viewed. We can also view the motion picture continuously, through VCR.

59. The Weston video deck and the Weston television receiver about which we will now discuss, are for colour television programme. We can use them for showing black and white programmes also. But a black and white receiver cannot show you colour programmes.
Let us now take up the description of the video deck. You have already been told about the television receiver.

First, the power system. You can set this for Ac 220 V - 50 Hz. mains supply.

The main switch (i.e. Power ON/OFF) is located on the rear control panel. Setting the switch to "OFF" removes all applied power from the set. Power lead is connected to mains.

Switching on or off of the video deck section is performed with the front panel OPERATE SWITCH. This the main's power switch at the back is used to switch off the set completely.

There is a video mode switch at the back. The AUTO automatically gives you colour or black and white modes. The position is sufficient for most purposes. When you switch to B/W, it takes only black and white signals i.e. monochrome.

There is a setting for "Test Signal" in the same switch control. Before your start the video deck, you must obtain a test signal on the TV set.

To connect external antenna to video deck you use the serial input socket.

When you want to get telecast programme on your TV set, you connect the external antenna to the TV set only.
68. When you remove the external antenna cable originally connected to the TV receiver and reconnect to the video deck, your video deck is ready to record off-the-air programmes. You may then connect the video deck to the TV receiver using the cable provided i.e. "RF OUT" of video deck to the "aerial in" of the TV receiver. Now your TV receiver is ready to receive programmes from the video deck - i.e. "recorded programmes" on cassettes as well as "off-the-air programmes".

69. You know that there is an OPERATE switch on the front panel. After switching the main switch at the back of the receiver, to switch 'on' or 'OFF' the video deck portion you use the OPERATE switch.

70. Open your WORKBOOK and answer questions 9 and 10. Take 2 minutes.

71. Answer to question 9.
The features of the video deck are:

1. Pre-recorded programmes on video cassettes can be played on the video deck and received by the TV receiver.
2. While the video deck can record programmes through a video camera, the television can receive the telecast (off-the-air) programmes.
3. We can watch pre-recorded programmes up to three hours, at a stretch.
4. The video cassette is very compact and light weight.
5. Still frame, and frame by frame pictures can be viewed on the TV receiver from the Cassette programmes.
72. Answer to question 10:
If you have marked like this you are right.

73. We will learn now how to operate the video deck.

74. PRE-TUNING OF BUILT IN TELEVISION TUNER.
The video deck incorporates a complete television tuner with the required tuning controls. Once you have pre-tuned to preferred stations, you can select one by pressing the channel selector.

75. Adjust your TV receiver to channel 37 for your video channel.

76. Switch the main power switch. Set OPERATE switch to ON. Now the operate light is on.

77. Set the video mode - Test signal switch to TEST. Select your TV channel also to 37. When you receive the B/W test pattern, TV set is properly tuned. After this, set the switch to Auto or B/W.

78. This is pre-tuning control box. Pull out the lid. Now let us set the pre-tuning on television tuner.

79. You can set the pre-tuner to Band I, i.e. VHF channels 2 to 4; Band III - VHF channels 5 to 12 or UHF channels 21-69 according to station to which you are going to tune. We have Channel 4 Band IV for Madras.

80. Turn corresponding pre-tuning control to the desired position, referring to both the tuning indicator and the monitored picture on the TV. Press in, the box till it is firmly in place. After viewing switch power OFF.
81. **VIEWING A PRE RECORDED VIDEO CASSETTE TAPE.** Set main power switch to on position.

82. Video cassettes have two sides. This is the right side. The second picture is the reverse side. Be sure that the cassette is fully inserted into the holder before pressing it down.

83. Press STOP/ EJECT key of the deck. The cassette holder will pop up. Insert cassette in the proper manner. Press with your hand the holder down to lock-in.

84. Set OPERATE switch to ON. Set channel selector to UHF CH 37, for your video channel.

85. Depress rewind key to rewind the tape if necessary. Look for STOP/ EJECT key. The one left to it, is the (FF) Fast Forward key. This when pressed, will advance the tape to forward position faster. The one left to it, is the PLAY key. This when pressed, will move the tape to play position.

86. The next key on the left is theREWIND key. Sometimes you may leave a tape when it is on the mid run. When you play it again, then you realise it is not at the beginning. Now you can bring your tape back to the start quickly, by pressing theREWIND KEY. Next to theREWIND key is the RECORD KEY. Depress the record key for recording any programme. Programmes can be recorded either through a video camera, or off the air.
87. In case you would like to dub audio on the tape, you have to connect the audio source and depress this key.

88. You have a microphone input, to plug in microphone for any external audio or microphone connection. If you want to have simultaneous sound input, connect the video camera to this terminal.

89. Lastly the PAUSE key on the extreme right, when depressed, temporarily stops the tape. Depress again to restart.

90. Having rewound fully the tape to start position, depress PLAY key to start playback. Depress STOP key for stopping the tape. You have the TRACKING control for minimising noise—any bars or shakes.

91. For still frame and frame by frame function, while you play, depress the pause key. The still frame now appears. Push the frame advance button. The frames are advanced one at a time, when this key is in depressed position, and goes on continuously one at a time.

92. If you have a vertical shake on the TV screen, in the still frame mode, remove the rubber cap on the rear panel and rotate the control on the right or left. Use screwdriver to minimise shake.

93. To unload the video cassette, depress first the STOP key, to keep deck in the stop mode. Now press eject key. The cassette holder will pop up. Remove the cassette. Press down the holder.
94. A word of caution, when you eject the tape, make sure that the tape has stopped completely. If in operation, depress stop/eject key and wait until the tape is completely unthreaded from the transport mechanism.

95. To view TELEVISION when video deck is connected, set deck to OPERATE position. Turn TV ON. Select TV channel as desired. The video deck need not be tuned on.

96. You have a number of other functions for the video cassette recorder and they are beyond the scope of this course.

97. Now open your WORKBOOK, and answer questions 11 & 12. Take four minutes.

98. Have you marked the parts like this for question 11 on the screen.

99. Answer to question 12 is on the screen. If you have answered correctly you can go for the practical exercise No. 40. If there are mistakes, and if necessary repeat the programme till you are satisfied. Then go ahead with practical exercise No. 41 and then unit test. Obtain the key and self-evaluate the test. Attend discussion session if you need one.

100. End.
Instructional Objectives:

1. Name the two common types of television system.

2. State the advantage of television over motion picture used for instructional purposes.

3. Explain the function of voltage stabilizers attached to television sets.

4. Identify and name the controls of a television receiver.

5. Describe the features of a video deck.

6. Distinguish the three defects in reception which are not due to fault in TV receiver.

7. Give reasons for the following defects in reception, in a TV set (Ghost, snow and R.F. interference).

8. Name and identify the controls and external connection of video deck.

9. Write the procedural steps required for operating
   a) video deck
   b) T.V. receiver.
Module III  
Projected Aids

Unit 9  
Television

1. It is said that television combines other visual medium in the programmes. Which of the following media are combined in the television medium?

___ a. 16 mm projector
___ b. 35 mm slides
___ c. photographs
___ d. all the above.

2. From the information given to you so far by us, say which one of the following is an advantage of Television over motion pictures?

___ a. record
___ b. preserve
___ c. shows magnification
___ d. immediate reuse

3. Voltage stabiliser is provided in order to get

___ a. more voltage for bigger pictures.
___ b. proper voltage to avoid defects
___ c. less voltage for less brighter pictures
___ d. reduce inflow of electric current.
4. Marked in the diagram are the important parts of TV receiver. The arrows are marked 1, 2, 3, 4 etc. Now write against the items given here the appropriate numbers.

   a. channel selector
   b. fine tuning
   c. ON/OFF switch
   d. volume control
   e. tone control
   f. horizontal hold knob
   g. vertical hold knob
   h. brightness control
   i. contrast control

5. Some common defects in TV are shown below. You will have to operate a knob or control to adjust these defects. These operation controls items given on the response sheets, the alphabets given for each of the defects shown by the picture here.

   1. brightness control  5. horizontal hold
   2. fine tuning         6. ghosts
   3. contrast            7. snow (weak signals)
   4. vertical hold       8. radio frequency

6. Occasionally telecast reception will be unsatisfactory though no fault of your television receiver or your operation. Which of the following faults can you categorise under the heading?

   a. ghosts
   b. snow on your TV screen
   c. R.F. interference
   d. all the above.
7. Which one of the following faults in your TV set occurs due to R.F. interference (radio frequency)?
   ___ a. ghosts
   ___ b. snow
   ___ c. extraneous electrical signals.
   ___ d. break of antenna cable

8. Ghosts are usually caused by
   ___ a. weak signals coming from TV stations.
   ___ b. extraneous electrical signals
   ___ c. reflected from obstacles before it comes to your antenna.
   ___ d. break of your antenna cable.

9. What are the five important features of the Weston Video deck?
   1. 
   2. 
   3. 
   4. 
   5. 

10. On the last page of this unit are given two views of the Weston video deck. Some of the parts are marked by alphabets a, b, c, d etc. You are required to note against the names given below the appropriate alphabet.
    ___ 1. mains power switch ___ 4. R.F.out
    ___ 2. video mode switch ___ 5. Aerial
    ___ 3. Operate switch ___ 6. voltage selector

11. In the picture of a Video Recorder given along with this, the front panel controls are marked as a, b, c, d etc. In the space given against the item listed below place the letter denoting the corresponding control/part.
    ___ 1. Eject ___ 4. play ___ 7. stop video
    ___ 3. Audio dub ___ 6. channel selector ___ 9. Frame advance button
    ___ 10. Cassette holder

M III/8-3/W8
Given below are operations to be done to the video deck and TV to get picture on the TV screen, when you play video cassette. Write against the operations, the serial number of the operation in order by giving numerals in the space provided.

- **a.** set operate switch
- **b.** switch mains power switch
- **c.** set video mode,
- **d.** adjust TV receiver to channel 37
- **e.** switch on TV switch and connect VCR & TV
- **f.** Press STOP key
- **g.** set the pre-tuner of VCR
- **h.** press eject key.
- **i.** push in video cassette, right side up.
- **j.** depress play key
- **k.** press eject key
- **l.** press rewind key.

M III/8-4/WB
Practical Exercise No. 40: Operating a video recorder.

A. PROBLEM

With given video cassette, play for 30 seconds the cassette on the Weston video deck to obtain colour picture on Weston Television.

a) Setting up
b) Operating

C. POINTS FOR GRADING

1. Setting up in order
2. Operation
3. Clarity of picture
4. Putting away

D. Deadline for completion: June 1st

M III/8/Pr. Ex. 40
Practical Exercise No. 40: Performance check list for Operating Video deck (Weston)

A. SETTING UP
1. Place VCR on a table
2. Place Television receiver at the proper place
3. Connect video deck to TV.
4. Connect RF OUT of deck to TV Aerial/vide input
5. Connect the VCR / TV to the mains
6. Switch on VCR mains switch at the back
7. Switch on TV.

B. OPERATION
1. Adjust TV to channel 37
2. Set operate switch
3. Set video mode to Auto (for both colour and b-w)
4. Set pre-tuner of VCR. set channel selector to 37
5. Press eject key - Cassette holder pops up.
6. Insert video cassette, right side up.
   Depress cassette holder.
7. Depress rewind key to bring tape to starting point.
8. Depress play key. Run for 30 seconds.
9. Adjust brightness/contrast
10. Press stop key.

C. PUTTING AWAY

1. Press rewind key
2. When fully rewound, press stop key again
3. Depress eject key
4. Remove cassette and depress holder
5. Store cassette
6. Bring all controls to normal at the end
7. Switch off TV. and operate switch
8. Switch off mains switch
9. Remove mains wires and other cables
10. Store all cables and cover the equipment.
VIDEO DECK

BACK PANEL

a  Aerial
b  RF out
c  V A
d  Mains power switch
e  Voltage selector
f  Operate
g  Eject
h  Fast forward
i  Rewind
j  Play
k  Audio in
l  Channel selector
m  Stop video
n  Still pause
o  Cassette holder
p  Record
q1  Tracking
q2  Tracking
r  Picture
s  Counter setting
t  Audio in
u  Video in

v  mic
w  Camera pause
x  Video mode switch
y  Power cord
z  Video out
z1  Audio dub
z2  Visual search
z3  Visual search
1 Channel selector  
2 On/Off switch  
3 Tone  
4 Contrast  
5 Vertical hold knob  
6 Fine tuning  
7 Volume control  
8 Horizontal hold knob  
9 Brightness control  
10 Screen  
11 Power cord  
12 Aerial  
13 Colour  
14 Cabinet
The check list given under are not in a sequence. Put numbers 1, 2, 3 etc. against each item, for each of the three steps; i.e. A, B, and C separately.

**A. SETTING UP**

- Switch on TV
- Switch on VCR mains switch at the back
- Connect RF out of deck to TV aerial/video input
- Connect the VCR/TV to the mains
- Place VCR on the table
- Place TV at proper place
- Connect video deck to TV

**B. OPERATION**

- Adjust TV to channel 37
- Set pre tuner of VCR. Set channel selector to 37.
- Press eject key—cassette holder pops up.
- Insert video cassette, right side up. Depress cassette holder.
- Set operate switch
- Set video mode to Auto (for both colour & B/W)
- Depress rewind key to bring tape to starting point.
- Press stop key.
- Depress play key. Run for 30 seconds.
- Adjust brightness/contrast.

**C. PUTTING AWAY**

- Press rewind key.
- Depress eject key.
- Switch off mains switch
When fully rewound, press stop key again
Remove cassette and depress holder
Store cassette.
Remove mains wires and other cables
Store all cables and cover the equipment
Bring all controls to normal at the end
Switch off TV and operate switch

M III/8/Pr.Ex.40(v)
The check list given under are not in a sequence. Put numbers 1, 2, 3, ... against each item, for each of the three steps; i.e., A, B, and C separately.

A. SETTING UP

7. Switch on TV
6. Switch on VCR mains switch at the back
4. Connect RF OUT of deck to TV aerial/Video input
5. Connect VCR/TV to the mains
1. Place VCR on the table
2. Place TV at proper place
3. Connect video deck to TV

B. OPERATION

1. Adjust TV to channel 37.
4. Set pre tuner of V.C.R. Set channel selector to 37.
5. Press eject key=cassette holder pops up.
6. Insert video cassette, right side up. Depress cassette holder.
2. Set operate switch
3. Set video mode to auto (for both colour & B/W)
7. Depress rewind key to bring tape to starting point
10. Press stop key
8. Depress play key, run for 30 seconds
9. Adjust brightness/contrast

C. PUTTING AWAY

1. Press rewind key
3. Press eject key
8. Switch off mains switch

M III/8/Pr. Ex. 40(key)-1
2. When fully rewound, press
4. Remove cassette and depress holder
5. Store cassette
9. Remove mains ...
10. Store all cables and cover the equipment
6. Bring all controls to normal at the end
7. Switch off TV and operate switch
1. It is said that television combines other visual medium in the programmes. Which of the following media are combined in the television medium?
   - a. 16 mm projector
   - b. 35 mm slides
   - c. photographs
   - d. all the above.

2. From the information given to you so far by us, say which one of the following is an advantage of Television over motion pictures?
   - a. record
   - b. preserve
   - c. shows magnification
   - d. immediate reuse

3. Voltage stabiliser is provided in order to get
   - a. more voltage for bigger pictures.
   - b. proper voltage to avoid defects
   - c. less voltage for less brighter pictures
   - d. reduce inflow of electric current.
4. Marked in the diagram are the important parts of TV receiver. The arrows are marked 1, 2, 3, 4 etc... Now write against the items given here the appropriate numbers.

   a. channel selector
   b. fine tuning
   c. ON/OFF switch
   d. volume control
   e. tone control
   f. horizontal hold knob
   g. vertical hold knob
   h. brightness control
   i. contrast control

5. Some common defects in TV are shown below. You will have to operate a knob or control to adjust these defects. These operation controls items given on the response sheets, the alphabets given for each of the defects shown by the picture here.

   1. brightness control   5. horizontal hold
   2. fine tuning          6. ghosts
   3. contrast             7. snow(weak signals)
   4. vertical hold        8. radio frequency

6. Occasionally telecast reception will be unsatisfactory though no fault of your television receiver or your operation. Which of the following faults can you categorise under the heading?

   a. ghosts
   b. snow on your TV screen
   c. R.F. interference
   d. all the above.

M III/8-2/CT
7. Which one of the following faults in your TV set occurs due to R.F. interference (radio frequency)?
   a. ghosts
   b. snow
   c. extraneous electrical signals.
   d. break of antenna cable

8. Ghosts are usually caused by
   a. weak signals coming from TV stations.
   b. extraneous electrical signals
   c. reflected from obstacles before it comes to your antenna.
   d. break of your antenna cable.

9. What are the five important features of the Weston Video deck?
   1.
   2.
   3.
   4.
   5.

10. On the last page of this unit are given two views of the Weston video deck. Some of the parts are marked by alphabets a, b, c, d etc. You are required to note against the names given below the appropriate alphabet.
    1. mains power switch
    2. video mode switch
    3. operate switch
    4. R.F. out
    5. aerial
    6. voltage selector

11. In the picture of a video recorder given along with this, the front panel controls are marked as a, b, c, d ... etc. In the space given against the items listed below place the letter denoting the corresponding control/part.
    1. Eject
    2. Fast forward
    3. Audio dub
    4. Play
    5. Rewind
    6. Channel selector
    7. Stop video
    8. Pause
    9. Frame advance button
    10. Cassette holder
12. Given below are operations to be done to the video deck and TV to get picture on the TV screen, when you play video cassette. Write against the operations, the serial number of the operation in order by giving numerals in the space provided.

a. set operate switch
b. switch mains power switch
c. set video mode,
d. adjust TV receiver to channel 37
e. switch on TV switch and connect VCR & TV
f. Press STOP key
g. set the pre-tuner of VCR
h. press eject key.
i. push in video cassette, right side up,
j. depress play key
k. press eject key
l. press rewind key.

M.III/B-4/CT
1. It is said that television combines other visual medium in the programmes. Which of the following media are combined in the television medium?
   - a. 16 mm projector
   - b. 35 mm slides
   - c. photographs
   - d. all the above.

2. From the information given to you so far by us, say which one of the following is an advantage of television over motion pictures?
   - a. record
   - b. preserve
   - c. shows magnification
   - d. immediate reuse

3. Voltage stabiliser is provided in order to get
   - a. more voltage for bigger pictures
   - b. proper voltage to avoid defects
   - c. less voltage for less brighter pictures
   - d. reduce inflow of electric current.
4. Marked in the diagram are the important parts of TV receiver. The arrows are marked 1, 2, 3, 4 etc., Now write against the items given here the appropriate numbers.

1. channel selector  
2. fine tuning  
3. ON/OFF switch  
4. tone control  
5. horizontal hold knob  
6. vertical hold knob  
7. volume control  
8. brightness control  
9. contrast control

5. Some common defects in TV are shown below. You will have to operate a knob or control to adjust these defects. These operation controls items given on the response sheet, the alphabets given for each of the defects shown by the picture here.

a. brightness control  
b. fine tuning  
c. contrast  
d. vertical hold  
e. horizontal hold

6. Occasionally telecast reception will be unsatisfactory though no faults of your television receiver or your operation. Which one of the following faults can you categorise under the heading?

a. ghosts  
b. snow on your TV screen  
c. R.F. interference  
d. all the above

M III/8-2/KCT
7. Which one of the following faults in your TV set occur due to R.F. interference (radio frequency)?

a. ghosts
b. snow
c. extraneous electrical signals
d. break of antenna cable

8. Ghosts are usually caused by

a. weak signals coming from TV stations
b. extraneous electrical signals
c. reflected from obstacles before it comes to your antenna.
d. break of your antenna cable

9. What are the five important features of the Weston video deck?

1. Video deck can record from TV at the same time as it receives telecast.
2. Pre-recorded video tape can be played and received by TV.
3. Compact and light.
4. Still frame and frame by frame picture can be viewed.
5. Pre-recorded programmes can be seen up to three hours continuously.

10. On the last page of this unit are given two views of the Weston video deck. Some of the parts are marked by alphabets a, b, c, d etc. You are required to note down in the alphabet.

D 1. mains power switch  D 4. R.F. out
A 2. video mode switch  A 5. Aerial
F 3. operate switch  C 6. Voltage selector
11. In the picture of a video recorder given along with this, the front panel controls are marked as a, b, c, d, etc. In the space given against the items listed below, place the letter denoting the corresponding control/part.

- G 1. Eject
- H 2. Fast forward
- K 3. Audio in
- J 4. Play
- I 5. Rewind
- L 6. Channel selector
- M 7. STOP video
- N 8. Pause
- P 9. Frame advance button
- O 10. Cassette holder.

12. Given below are operations to be done to the video deck and TV to get picture on the TV screen, when you play video cassette. Write against the operations, the serial number of the operation in order by giving numerals in the space provided.

- 4 a. set OPERATE SWITCH
- 3 b. switch mains power switch
- 5 c. set video mode
- 2 d. adjust TV receiver to channel 37
- 1 e. switch on TV switch and connect VCR & TV
- 10 f. press STOP key
- 6 g. set the pre-tuner of VCR
- 7 h. press eject key
- 8 i. push in video cassette, right side up
- 9 j. depress play key
- 12 k. press eject key
- 11 l. press rewind key