

## Scheme – I

### Sample Question Paper

**Program Name** : Electronics Engineering Programme Group

**Program Code** : DE/EJ/ET/EN/EX/EQ

**Semester** : Fourth

**Course Title** : Consumer Electronics

**Marks** : 70

**22425**

**Time: 3 Hrs.**

#### Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

#### Q.1) Attempt any FIVE of the following

**10 Marks**

- (a) Identify block "A" given in figure 1, and predict the output signal of block A.

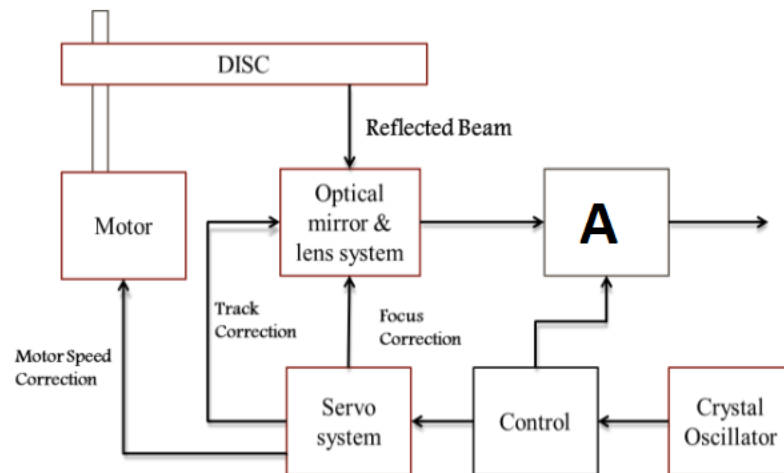


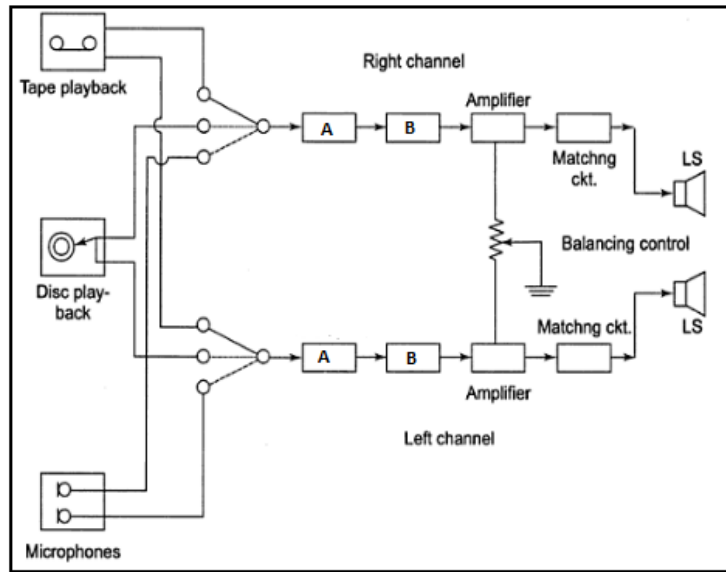
Figure 1

- (b) State 4 Parameters of Public Address System.
- (c) List out four technical specifications of Hi-fi Audio Amplifier system,
- (d) " Back Lit LED TV is better than edge Lit LED TV" Justify.
- (e) List any two wiring and Safety Instructions for use of microwave Oven.
- (f) For Woofer and Tweeter comment on the following factors.
  - i. Frequency Range .
  - ii. Size of Speakers.
- (g) Explain the Function of Exposer in Photocopier Machine.

**Q.2) Attempt any THREE of the following: -**

**12 Marks**

- (a) State the function of Equalizer with the block diagram of Hi-fi audio amplifier.
- (b) Identify blocks "A" and "B" given in figure 2, and state its function.



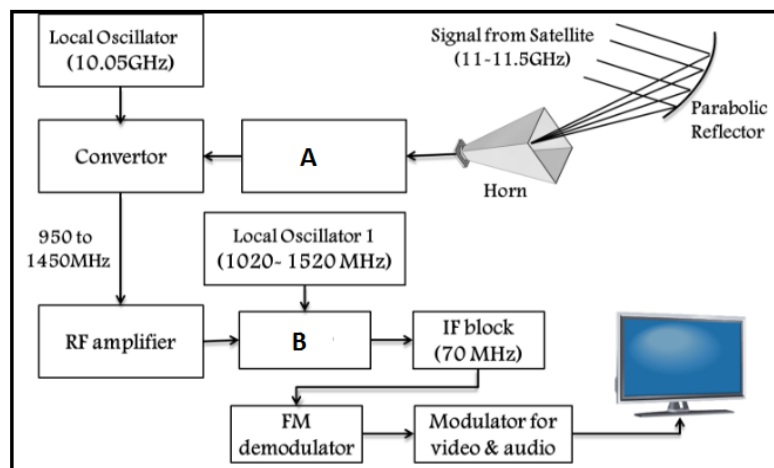
**Figure 2**

- (c) Define:
  - i. Positive Modulation.
  - ii. Negative Modulation.
- (d) Explain the NHK MUSE encoding system.

**Q.3) Attempt any THREE of the following.**

**12 Marks**

- (a) "Digital Camcorders are best for video recording than digital camera" Justify.
- (b) State four Electrical specifications with values for Washing Machine.
- (c) Identify the missing block in given diagram (Figure 3). Describe the working of the this system.



**Figure 3**

- (d) List any eight specifications of CCIR-B Standards for Color signal transmission and reception.

**Q.4) Attempt any THREE of the following. 12 Marks**

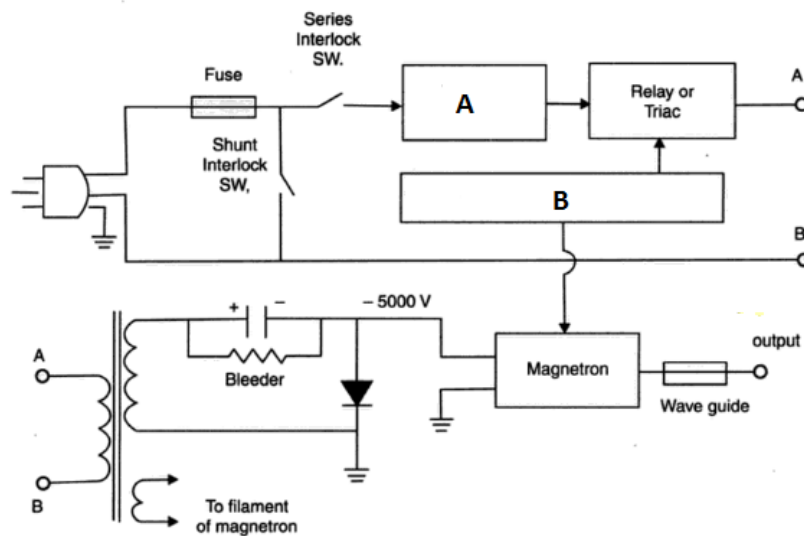
- (a) Describe with the help of diagram Front porch, Back porch and Line Sync Pulse in Horizontal Sync Pulse.
- (b) Explain with the help of diagram the Function of Sync Separator.
- (c) Explain the working of photocopier with its block diagram.
- (d) Describe with the help of diagram the working principle of carbon type microphone.
- (e) Sketch the block diagram of MP3 Player.

**Q.5) Attempt any TWO of the following. 12 Marks**

- (a) State with suitable diagram the function of each block of OLED TV.
- (b) Draw the Block diagram of Washing Machine. State and Justify type of Washing machine having more advantages.
- (c) Draw labelled Diagram of Composite Video Signal and state the function of Line Sync Pulse.

**Q.6) Attempt any TWO of the following. 12 Marks**

- (a) Define Vertical and Horizontal Resolution. Calculate vertical and horizontal resolution for 625 line system.
- (b) i. Name the Block diagram shown in Figure 4.  
 ii. Identify the block "A" and "B" in given block diagram,  
 iii. State the functions block "A" and "B".



**Figure 4**

- (c) Describe with the help of block diagram, Operation of CD Player.

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**Semester** : Fourth  
**Course Title** : Consumer Electronics  
**Marks** : 20

**22425**

**Time:1 Hour**

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#### Instructions:

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#### Q.1 Attempt any FOUR.

**08 Marks**

- a) Define with respect to Sound System
  - i. Sensitivity
  - ii. Selectivity
- b) List four Types of Microphones used in Sound System.
- c) List types of CD lens used in CD player.
- d) Define with respect to TV System
  - i. Aspect Ratio
  - ii. Image Continuity
- (e) State the functions of drive motors used in CD player.

#### Q.2 Attempt any THREE.

**12 Marks**

- (a) Describe with the help of diagram working principle of Electrostatic speaker.
- (b) Explain with the help of diagram the function of each Block of Hi-Fi amplifier.
- (c) Draw the block diagram of CD player.
- (d) Describe with the help of neat diagram Vestigial Side band transmission.

## Scheme – I

### Sample Test Paper - II

**Program Name** : Electronics Engineering Programme Group  
**Program Code** : DE/EJ/ET/EN/EX/EQ  
**Semester** : Fourth  
**Course Title** : Consumer Electronics  
**Marks** : 20

**22425**

**Time: 1 Hour**

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#### Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

#### Q.1 Attempt any FOUR.

**08 Marks**

- (a) "LED TV is more Energy efficient than LCD TV", Justify.
- (b) State time periods of horizontal and vertical sync detail
- (c) Draw the block diagram for separating U and V signal in Colour TV.
- (d) State the types of Washing Machine.
- (e) State the need of equalizing pulses in colour TV.

#### Q.2 Attempt any THREE.

**12 Marks**

- a) Describe with the help of block diagram the function of color TV transmitter.
- b) Explain with the help of block diagram the operation of PAL-D decoder.
- c) Describe using suitable diagram the single chip controllers.
- d) Explain with the help of block diagram the construction of LED TV.