

(3 Hours)

Marks : 80

- NB : 1) question 1 is compulsory
 2) Attempt any three questions out of remaining five questions
 3) Draw appropriate neat diagrams wherever required.

Q.1 Attempt any **four**

- (a) Explain synchronization in TV system.
- (b) List electrical characteristics of NTSC system.
- (c) What do you understand by Chroma subsampling in digital TV system.
- (d) Explain the principle used in image orthicon camera tube
- (e) What is smart Television? Explain the features.

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Q.2(a) Explain interlaced scanning in detail with appropriate diagrams.

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(b) Explain how monochrome and colour television are made compatible.

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Q.3(a) List the advantages of digital Television over analog television system.

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(b) Draw and explain PAL Decoder block diagram.

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Q4.(a) What is MAC ? List advantages. Draw and explain D2 MAC signal.

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(b) Write short note on LED displays.

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Q.5(a) List the features of various DVB standards 1) DVB-T 2) DVB-S 3) DVB-C.

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(b) Write short note on MPEG-2.

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Q.6(a) Explain satellite television communication system with appropriate block diagrams.

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(b) Write short notes on **any two**

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i. set top box

ii. HDTV

iii. composite video signal
