Faculty of Engineering & Technology
Seventh Semester B.E. (EC/ET) (C.B.S.) Examination
TELEVISION & VIDEO ENGINEERING

Time—Three Hours]   [Maximum Marks—80

INSTRUCTIONS TO CANDIDATES

(1)   All questions carry marks as indicated.

(2)   Solve Question No. **1 OR** Questions No. **2**.

(3)   Solve Question No. **3 OR** Questions No. **4**.

(4)   Solve Question No. **5 OR** Questions No. **6**.

(5)   Solve Question No. **7 OR** Questions No. **8**.

(6)   Solve Question No. **9 OR** Questions No. **10.**

(7)   Solve Question No. **11 OR** Questions No. **12**.

(8)   Due credit will be given to neatness and adequate dimensions.

(9)   Assume suitable data wherever necessary.

(10)   Illustrate your answers wherever necessary with the help of neat sketches.

1. (a) What do you understand by Interlaced Scanning? How it reduces bandwidth and problem of flicker? 7

(b) Why VSB transmission is done in TV? Explain with waveforms. 7

OR

2. (a) Justify why (G − Y) signals is not transmitted in colour TV transmission? 6

(b) Draw chromaticity diagram and explain what information is obtained from it. 8

3. (a) Compare PAL, MTSC and SECAM colour TV system with at least four points. 6

(b) Draw a block diagram of PAL encoder. Explain its working. 7

OR

4. (a) Write a short note on 'Remote Control Unit'. 5

(b) Describe how a pattern generator is useful in testing a TV receiver. 8

5. (a) State the advantages of digital TV. Draw a neat block diagram of digital TV receiver and explain with the same. 8

(b) Explain the format of MAC signal used for transmission of colour TV signals. 5

OR

6. (a) State the features of following video compression techniques.

(i) MPEG − 2

(ii) MPEG − 4 8

(b) What are the technical advantages of using digital technology in television system? 5

7. (a) State the main features of HDTV. 4

(b) Draw a neat block diagram of MDTV transmitter and HDTV receiver and explain function of each block. 10

OR

8. (a) Explain DTH technique for TV broadcasting using neat block diagram. 7

(b) Describe CCTV and give its applications. 7

9. (a) What are the features of IPTV ? Explain the architecture of IPTV.　8

(b) Enlist the important specifications of mobile TV.　5

OR

10. (a) State and explain the principle of Digital Video Recorders. (DVR)　7

(b) Describe Video Intercom and Video Phone System.　6

11. (a) Compare Camcorders with Handycams and Digicams.　7

(b) Explain colour TV digital cameras.　6

OR

12. (a) Compare the following with at least five points.

Blue-ray disc and DVD.　7

(b) Explain working of LCD TV in detail.　6