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BE/INSEM/APR-570 B.E. (E & TC) (Semester - II) 404191E: AUDIO VIDEO ENGINEERING (2015 Pattern) (Elective - III) Time: 1 Hour] [Max. Marks : 30] Instructions to the candidates: Answer Q.1, or Q.2, Q.3, or Q.4, Q.5 or Q.6. 1) 2) Near diagrams must be drawn wherever necessary. Figures to the right side indicate full marks. 3) Assume suitable data if necessary. 4) Use the color composite video signal to show the pedestal height, DC **Q1**) a) level, darker and white portion and give significance of each. [5] The channel bandwidth in PAL-B standard is 7MHz- Justify. [5] Compare PAL, NTSC and SECAM color TV systems. Which of the **Q2**) a) system you select for our geographic and why? The color subcarrier frequency in PAL-B system is 4.4296875MHz-Justify b) Write a short note on LED and LCD display devices. **Q3**) a) With suitable block diagram explain MAC encoder and decoder and b) write advantages of MAC signal. [5] OR Explain lossy and lossless compression. Which compression is preferred *Q4*) a) for video and why? [5] With suitable block diagram explain advanced DTV transmitter and b) receiver with component encoding. [5]

*P.T.O.* 

- Q5) a) Select and explain with block diagram the appropriate television which operates in Ku band and doesn't need service operator.[5]
  - b) Enlist the techniques to create 3D-TV effect. Explain all techniques in brief. [5]

OR

- Q6) a) Select the suitable cameras and their placements for the Digital broadcasting of Cricket match.[5]
  - b) With suitable block diagram explain the working of CATV. [5]