

[Time: Three Hours]

[ Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. Question.No.1 is compulsory.
  2. Answer any Three out of remaining six questions.
  3. Draw the neat diagrams wherever necessary.



- Q.1 1 Answer the following 20
- a. Draw and Explain of color difference signal circuit.
  - b. Explain the specification of vertical sync pulse and need of serrations in it
  - c. What is the function electron multiplier in image orthicon camera tube
  - d. Explain EBU MAC system in brief.
- Q2 a) What is NTSC? Draw and explain NTSC Decoder. 20
- b) What is MUSE system? Explain its technical specifications, advantages and disadvantages.
- Q3 a) Draw and Explain half line discrepancy. How can it be eliminated? 20
- b) Explain:
- 1) Why (G- $\gamma$ ) signal is not selected for transmission?
  - 2) Explain how effective number of lines is evolved.
- Q4 a) Draw sync separator section in Television system and explain it in detail. 20
- b) Draw and explain color television camera system and what the purpose of dichroic lance is.
- Q.5 a) Draw and explain delta gun color picture tube. 20
- b) Explain MAC signal its compression technique and scanning frequency.
- Q.6 Write short notes on (any two) 20
- a) Cancellation of phase error in PAL.
  - b) Compatibility factors for monochrome and color television.
  - c) DTH Television system.