

R09**Code: 9A04705**

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2016

T.V. ENGINEERING

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain the working principle of a TV transmitter and receiver with relevant diagrams.
(b) Briefly discuss about colour signal generation and encoding with necessary diagrams.
- 2 (a) With a neat diagram, explain about VSB transmission and give its advantages.
(b) List out TV broadcast channels and their frequency ranges.
- 3 (a) With a neat diagram, explain the working principle of colour TV camera.
(b) Discuss about CCD image sensors with relevant diagram.
- 4 (a) Draw the block diagram of a NTSC colour TV system and explain the details.
(b) List out the picture tube characteristics.
- 5 (a) With a neat diagram, explain about the IF subsystem of an RF tuner.
(b) Explain about video amplifier section of RF tuner.
- 6 (a) Discuss about FM detectors in TV receiver circuits.
(b) Discuss briefly about VHF and UHF tuners.
- 7 (a) Draw the block diagram of PAL-D decoder and explain its working.
(b) Explain about U&V demodulators with neat diagrams.
- 8 Write short notes on the following:
 - (a) Deflection drive ICs.
 - (b) Digital TV receiver.
