

T. E. (Electronics) (Sem VI) (Rev) 11/11/06  
Communication System)

[ REVISED COURSE ]

CON/5092-06.

YM-7078

( 3 Hours )

[ Total Marks : 100

- N.B. : (1) Question No.1 is compulsory.  
(2) Attempt any four questions from the remaining six questions.  
(3) Assume suitable data wherever necessary.  
(4) Figures to the right indicate full marks.

1. Answer any four from the following : 20  
(a) Why antenna coupling networks are required ? Explain  $\gamma$  coupling networks of antennas.  
(b) Sketch and explain the composite video signal waveforms for three arbitrary lines.  
(c) Explain interlaced scanning. How flicker is reduced by interlaced scanning ?  
(d) Explain the basic radar system with a simple sketch. Which factors determines the short range or minimum range of a radar ?  
(e) State and explain Kepler's law.
2. (a) Explain the any four characteristics of an antenna. 8  
(b) Explain various microwave antennas. 12
3. (a) With a neat block diagram explain the working of a colour TV receiver. 12  
(b) Explain the construction, principle of operation, advantages and limitations of image orthicon Camera Tube. 8
4. (a) Write a note on Cable T.V. 6  
(b) Explain in brief satellite launching. 8  
(c) Explain the various multiple Access Communication. 6
5. (a) Explain orbital perturbation. Elaborate the causes of orbital perturbation. What is orbit correction and how it can achieved. 12  
(b) With a neat block diagram explain CW Doppler radar system. 8
6. (a) Compare the advantages, disadvantages and applications of GEO, MED and LEO. 8  
(b) What is pulsed radar system ? Explain basic pulse radar system with a neat sketch. 8
7. Write a note on following :  
(a) Yagi Uda antenna. 8  
(b) Digital T.V. 6  
(c) Direct broad cast satellite. 6

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