

Electronics
Sem VI OLD

Q. P. Code: 16583

(3 hours)

Total Marks:100

- Note: (1) Question 1 is compulsory
(2) Answer any 4 out of the remaining questions
(3) Diagrams to be drawn whenever required

1. (a) State and prove Keplers laws (20)
(b) Explain the principle of working of a MTI radar.
(c) Differentiate between resonant and non-resonant antennas.
(d) Explain Blind speed in Radar System.
- 2.(a).Describe telemetry and tracking section in satellite receivers (10)
(b). Explain the principle of working of a monochrome receiver. (10)
- 3(a) Describe the various stages of uplink and downlink model of a satellite system. (10)
(b) Explain composite video signal with neat diagram. (10)
- 4 (a). Explain the working of yagi uda antenna along with radiation pattern. (10)
(b) Explain principle of PAL receiver (10)
- 5.(a) Derive the relation for maximum Radar Range. Explain the Factors affecting it. (10)
(b). Describe LEO, MEO and GEO satellites. (10)
- 6.(a). Define the following:
Apogee, Perigee, Radiation pattern, Beam width of antenna, Radiation resistance (10)
(b) Explain working of any one camera tube in TV. (10)
7. Write short notes on: (20)
a.) Interlaced Scanning
b.) Satellite Launching
c.) Radar scanning
d.) Parabolic reflector antenna
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T.E. - SEM: VI (Old) - ETRX

Q.P. Code: 16378

[Time: 3 Hours]

[Marks: 100]

Please check whether you have got the right question paper.

- N.B:
1. Question No. ONE is compulsory.
 2. Out of remaining questions, attempt any FOUR questions.
 3. In all FIVE questions to be attempted.
 4. All questions carry equal marks.
 5. Answer to each new question to be started on a fresh page.
 6. Figures in brackets on the right hand side indicate full marks.
 7. Assume Suitable data if necessary.

- Q.1 a) Explain the significance of HOLD, RESET and READY IN 8086. 05
 b) Explain the status Register of PIC controller 05
 c) Explain the application of PIC 18F timer. 05
 d) List the differences between 8086 and 8088 processors. 05
- Q.2 a) Explain the Data and Program Memory Map of PIC Controller. 10
 b) Explain the 8086-8087 coprocessor configuration. 10
- Q.3 a) Write a detailed note on interrupt structure of 8086. 10
 b) Write an 8086 program to transfer a block of 10 bytes using string instructions from data segment to extra segment. 10
- Q.4 a) Explain the PIC 18F programming model. What is the difference between w Register and Data Register 10
 b) Explain the different modes of operation in 8255. 10
- Q.5 a) Draw and explain the 8086 maximum mode of operation. 10
 b) Explain the following 8086 instructions 10
 i)CMP ii) MOVSB iii) LOOPNE iv) STD/CLD
- Q.6 a) Draw and explain the interfacing of 8259 and 8086 in cascaded mode. 10
 b) Explain the addressing modes of PIC18F. 10
- Q.7 Write short notes on any two
 a) Modes of 8237 DMA Controller 10
 b) OCW's of 8259 10
 c) Assembler Directives of 8086 10