

###

Sec. 2010/2 / Electronics - I / 04/19/24

PRS/KS/24/20104

Bachelor of Science B.Sc. Semester-V Examination
ELECTRONICS-MODERN COMMUNICATION SYSTEMS (NEW)

Optional Paper-1

[Maximum Marks : 50

Time : Three Hours]

- N.B. :- (1) All the questions are compulsory and carry equal marks.
(2) Draw neat diagrams wherever necessary.

EITHER

1. (A) What is photo detector ? Explain the construction and working of PIN diode and Avalanche Photodiode detectors used in optical communication system. 2+8

OR

- (B) What is fiber optic communication ? State and explain the properties of fiber optic cable. Draw the block diagram of fiber optic communication system and describe the function of each block. 4+6

EITHER

2. (A) Draw the block diagram of digital pulse code modulation system and explain the function of each block. State advantages of digital modulation. 8+2

OR

- (B) What is digital modulation techniques? Explain the process of amplitude and frequency shift keying with suitable waveforms. 2+8

EITHER

3. (A) What is need for satellite communication ? Explain satellite telephone system using LEO and MEO satellite communication. 2+8

OR

- (B) Explain geostationary satellite concept and state its uses. Enlist the features of low Earth orbit satellite and its applications. 6+4

EITHER

4. (A) What is mobile radio communication ? Draw the block diagram of mobile communication system and state the function of each block. Describe CDMA system in mobile communication. 6+4

OR

- (B) What is GSM standard in mobile communication ? Explain the need for GSM and its different functional units. 4+6

5. Solve any ten :

- (A) What is LASER ?
- (B) Enlist any two optical sources.
- (C) State the types of FOC cable.
- (D) What is PSK ?
- (E) State the difference between error detection and correction.
- (F) What is data coding ?
- (G) What is transponder in satellite communication ?
- (H) How much is height of geostationary satellite from earth ?
- (I) What does INTELSAT stand for ?
- (J) What is CDMA technology ?
- (K) State any two advantages of cellular telephone system.
- (L) How is CDMA better than GSM ?

10×1=10

College_Exam_100

College_Exam_100

College_Exam_100

650 - 25
708 - 16
710 - 02
712 - 39
720 - 36
723 - 29
724 - 18
763 - 15
806 - 15
811 - 15
827 - 14

MH-3925