
[5668]-209

## S.E. (I.T.) (II Semester) EXAMINATION, 2019

FOUNDATIONS OF COMMMUNICATION AND COMPUTER NETWORK
(2015 PATTERN)
Time : Two Hours
Maximum Marks : 50
N.B. :- (i) Answer Question Nos. 1 or 2, 3 or i4, 5 or 6, 7 or 8. (ii) Figures to the right indicate futh marks. (iii) Assume suitable data, if necessary.

1. (A) What is Guided Media? Explain types of Guided media with suitable diagrams.
(B) With the help of diagram explain AM. Write mathematical expression of AM modulated signal.
2. (A) Explain with examples different addressing schemes used in TCP/IP.
(B) What is bandwidth required for FM M which the Modulating frequency is 2 kHz and maximum possible deviation is 10 kHz . Assume highest needed sidebands 8. Also calculate using Carson's rule.
3. (A) Explain the following shife keying techniques with suitable examples :
(i) ASK
(ii) FSK
(iii) PSK.
(B) What is CRC ? Generate the CRC code for message 1101010101. Giyen generator polynomial $g(x)=x^{4}+x^{2} \cap 1$. Or
4. (AD Explain Pulse Code modulation and Delta modulation with suitable diagram.
[6]
(B) Explain the working meghanism of Go back-N and Selective Repeat ARQ.
5. (A) Explain FDM and TDMM multiplexing with their advantages and disadvantages.
(B) Explain principle of Direct Sequence Spread Spectrum. (DSSS) Modulation with help of block diagram.
6. (A) What is spread spectrum ? Explain FHSS with its advantages and disadvantages.
(B) Explain TDMA and CDMA with neat diagram.
7. (A) Explain functions of Hub, repeater, switch and routers. [7]
(B) Explain circuit switched networks with three phases.
8. (A) What is switching ? Explain in detail packet switching technique along with its advantages and disadvantages.
(B) Draw and explain MAC Frame Format of 802.3 Explain each field in detail.
