BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)

B. Tech. Sem - II E&C :SUMMER- 2022

SUBJECT : ELECTRONIC COMMUNICATION

Day : Monday
Date : 1/8/2022

S-24090-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B :

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labeled diagram **WHEREVER** necessary.
4) Assume suitable data if necessary.

Q.1 Describe baseband system and passband system in detail. **[10]**

OR

Q.1 **a)** Differentiate Analog Vs Digital communication system. **[05]**

b) Classify different types of modulation techniques. **[05]**

Q.2 Draw structure of optical fiber cable and explain it in detail. **[10]**

OR

Q.2 **a)** Explain Ground Wave Propagation. **[06]**

b) Define following with respect to transmission of signal. **[04]**

i) Attenuation **ii)** Diffraction

iii) Scattering **iv)** Reflection

Q.3 Describe basic principle of operation of satellite communication. **[10]**

OR

Q.3 **a)** Explain the necessity of modern communication. **[05]**

b) List different modern communication techniques. **[05]**

Q.4 **a)** Explain with respect to External Noise **[10]**

i) Atmospheric Noise **ii)** Extraterrestrial Noise

OR

Q.4 Define noise temperature and noise figure. Also derive the relation between noise figure and temperature. **[10]**

Q.5 Describe the generation of SSB wave using third method. **[10]**

OR

Q.5 Differentiate DSBFC, DSBSC and SSB-SC technique. **[10]**

Q.6 **a)** Define the terms related to F. M. **[06]**

i) Frequency Modulation

ii) Modulation Index

iii) Frequency Deviation

b) Compare FM with PM. **[04]**

OR

Q.6 Explain Indirect method of FM generation. **[10]**

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