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Roll No.....

FOURTH SEMESTER

B.Tech. (EP)

MID SEMESTER EXAMINATION

March-2019

EC-272 COMMUNICATION SYSTEM

Time: 1.5 Hours

Max. Marks: 30

Note: Answer ALL questions.

Assume suitable missing data, if any.

Q1: i) What are the important elements of communication system? Explain the steps and structure involved in the process of electronic communication? Show the details of below mentioned frequency band for various communication systems and mention the type of communication respectively:

Very Low Frequency, Low Frequency, Medium Frequency, High Frequency, Ultra High Frequency, Super High Frequency (04)

ii) What is modulation? Explain the three reasons for the necessity of modulation in wireless transmission? Explain the difference between linear and non-linear modulation? (03)

iii) What are the reasons of errors in communication system? Define noise. Where it is most likely to affect the signal? What does modulation actually do to a message and carrier? (03)

Q2: i) Mention in the detail the important components of typical network for wireless broadcasting, transmission and reception? (04)

ii) What is signal? Explain the difference between continuous and discrete time signals along with real and complex signals. (03)

P.T.O.

Q3: i) What are various types of modulations? Explain the difference among them? Give short notes on Flicker, Recombination and Solar Noises (04)

ii) Discuss any THREE from the following: (3 x 3 = 09)

- (a) Bandwidth requirement
- (b) Periodic and non-periodic signals
- (c) Optical fibre Communication and limitations
- (d) Limitations of wireless communications