S.B. Roll No……

COMMUNICATION SYSTEM-I

4th Exam/ECE/ECE-II/ETV/6127/Nov'18

Duration: 3Hrs. **M.Marks:75**

SECTION-A

Q1. Do as directed. **15x1=15**

a. The parabolic antenna is_____ directional.
b. _____ is the elimination of portion of signal.
c. The _____ is located between the troposphere and ionosphere.
d. Ground wave propagates in the frequency range of _____.
e. APD stands for _____
f. VSWR stands for _____
g. _____ are rays that pass through the axis of the optical fibre.
h. A _____ satellite acts merely as a reflector of signal.
i. UHF is known as_____.
j. _____ is caused by a step change in the refractive index that occurs at the fibre joint.
k. Reactance modulator is superior to Armstrong method of FM.(T/F)
l. A typical value of IF for a super heterodyne radio receiver is 455KHz. (T/F)
m. Antenna beam width is a measure of directivity of an antenna. (T/F)
n. Apogee is the point on orbit of a satellite closest to the earth. (T/F)
o. The ability of a radio receiver to amplify the weakest signal received is _____.

SECTION-B

Q2. Attempt any five questions. **5x6=30**

i. Explain the working of FM transmitter.
ii. What do you mean by isotropic radiator?
iii. Define the following:
a) S/N ratio b) Sensitivity c) Image Frequency
iv. What is an antenna? Write its functions?
v. Explain how are ground wave attenuated.
vi. Compare ground, sky and space wave propagation.
vii. What is dispersion? Give its types
viii. Compare FM receiver with AM receiver.

SECTION-C

Q3. Attempt any three questions. **3x10=30**

a. Explain the working principle of super heterodyne AM radio receiver.
b. Give construction, characteristics, advantage, disadvantage and applications of yagi-uda antenna.
c. What are the advantages, disadvantages and applications of optical fibre communication?
d. Write short notes on the following. **(any two)**
i. Armstrong method
ii. Sky wave propagation
iii. Geo-stationary satellite