S.B. Roll No.....

SATELLITE COMMUNICATION
5th Exam/ETV/0165/Nov'17

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

SECTION-A

Q1. Fill in the blanks. **15x1=15**

a. Satellite communication is an example of _____ type of transmission.
b. _____ is a satellite that rotates around the earth in a high-altitude elliptical.
c. The point where the orbit crosses the equatorial plane going from south to north is called _____.
d. _____ is application of satellite communication.
e. Polar orbiting satellites cover _____ region.
f. The _____ refers to the equipment used to provide the service for which the satellite has been launched.
g. In a satellite, the equipment which provides the connecting link between transmit & receive antennas is called _____.
h. Transmit & receives signals are separated in a device _____.
i. _____ improves the post detection signal to noise ratio.
j. _____ are types of antenna losses.
k. _____ used to describe the microwave radiation which is present throughout universe.
l. In SCPC each channel is _____ activated.
m. A code which allows for the detection of errors is called _____.
n. Primary component of uplink section of satellite is _____.
o. The method of assigning adjacent channels different electromagnetic polarization is called _____.

SECTION-B

Q2. Attempt any five questions. **6x5=30**

i. Write advantages of satellite communication.
ii. What are basic characteristics of antennas?
iii. What are transponder limitations?
iv. Draw a general satellite diagram.
v. What is Erlang congestion formula?
vi. What are rain and ice effects on satellite communication?
vii. Describe in detail propulsion system?

SECTION-C

Q3. Attempt any three questions. **10x3=30**

a. What is system noise temperature and G/T ratio?
b. Explain TDMA.
c. What is satellite link analysis? Explain uplink and downlink.
d. Write a short note on
    i. Troposphere effects
    ii. Ionosphere effects