Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (ECE) (2012 to 2017 E-II)   (Sem.–7)

SATELLITE COMMUNICATION

Subject Code : BTEC-910

M.Code : 71914

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Answer briefly :

1. Write the advantages and disadvantages of Satellite Communication.

2. What are the parameters which may affect the orbital position of the satellite?

3. Why is Uplink frequency greater than the downlink frequency?

4. What are Geostationary Satellites?

5. When VSAT type terminals involved CDMA offers several advantages of satellite networking. What are they?

6. What is angle of evaluation?

7. Define frequency window.

8. What is head end equation?

9. Write the two basic problems in satellite digital transmission.

10. Compare single access and multiple access.

SECTION-B

11. What are the functions carried out in Telemetry, Tracking & Command (TT&C) Subsystem?

12. The range between a ground station & a satellite is 42000km. Calculate the free space loss a frequency of 6GHz.

13. Why link budget is calculated for satellite communication system?

14. What is meant by burst position acquisition & burst position synchronization?

15. Briefly discuss about Mobile Satellite Services.

SECTION-C

16. Derive the satellite link design equation.

17. Describe briefly the types of INTELSAT satellites with respect to basic space craft characteristics and vehicle types.

18. Summarize the important feature of Intelsat SCPC system.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.