

F-7391

Sub. Code

7MELE3B

M.Sc. DEGREE EXAMINATION, APRIL 2022

Second Semester

Electronics

Elective – MOBILE SATELLITE COMMUNICATIONS

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define orbit.
2. What is radio frequency environment?
3. What is satellite coverage?
4. Define Geo satellite.
5. Define modulation.
6. What is multiple access?
7. What is antenna principle?
8. What is GMR?
9. Define space segment.
10. Define OSI.

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write short note on radio link reliability.

Or

- (b) Illustrate satellite system architecture.

12. (a) Explain Doppler effect.

Or

- (b) Explain satellite coverage.

13. (a) Explain spread spectrum.

Or

- (b) Explain frequency division multiplexing.

14. (a) Explain transponders in detail.

Or

- (b) What are the features of GMR-I?

15. (a) What are the mobile broadcast system requirement?

Or

- (b) What are the Characteristics of a receiver?

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Elaborate the function of satellite communication system.
17. Explain non-real time system in satellite communication.
18. Explain multiple accessing schemes for MSS.
19. Describe architecture of MSS radio interface.
20. Describe DVB-SH system architecture in detail.
