501 Register No.:

October 2018

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B

(2) Answer division (a) or division (b) of each question in PART – C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. What is radar? State any one application of it.
2. Define IOC.
3. Mention any two characteristics of data transmission circuits.
4. State any two error correction codes.
5. State any two applications of optical fiber.
6. State any two microwave devices.
7. What is Co-channel interference?
8. List the different types of satellite orbit.

PART – B

9. Write radar range equation. State the factors influencing maximum range.
10. Draw basic pulsed radar block diagram.
11. Define cross talk and distortion in digital communication.
12. State the different types of digital modulation techniques.
13. Define step index and graded index fiber.
14. Draw the block diagram of a satellite transponder.
15. Name the important sub systems of GSM architecture.
16. Draw a diagram to show how TDMA works.

[Turn over.....

PART – C

17. (a) Explain ISDN architecture with neat diagram.

(Or)

(b) Explain direct recording with neat block diagram.

18. (a) Draw a neat block diagram of digital communication system and explain.

(Or)

(b) Explain hamming code with an example.

19. (a) Draw a block diagram of optical communication system and explain.

(Or)

(b) Explain any two applications of optical fiber with necessary diagrams.

20. (a) Explain with necessary block diagram transmit, receive earth station.

(Or)

(b) (i) Explain with block diagram microwave transmitter.
(ii) Draw block diagram of microwave receiver.

21. (a) Draw and explain simplified cellular telephone system.

(Or)

(b) Explain with diagrams how cell splitting and sectoring are used to improve cellular communication system.
