

Roll No.

Z-57

Total No. of Questions : 23]

[Total No. of Printed Pages : 7

11th ARF(SZ)JKUT2024-25

257

TELECOMMUNICATION

(Vocational)

Time : 2.30 Hours]

[Maximum Marks : 50

Section-A

(Objective Type Questions)

1 each

1. Which shortcut is used to copy text in most software ?

- (A) Ctrl + P
- (B) Ctrl + X
- (C) Ctrl + C
- (D) Ctrl + V

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2. What is the term for the ability to work well with others in a business setting ?

(A) Team Work

(B) Delegation

(C) Micromanagement

(D) Solitary Planning

3. What is the primary disadvantage of optical fiber communication ?

(A) Low Bandwidth

(B) High Installation Cost

(C) High Signal loss

(D) Electromagnetic spectrum

4. In which type of optical fiber does light travels in multiple paths ?
- ☒ (A) Multi-mode fiber
- (B) Single-mode fiber
- (C) Plastic optical fiber
- (D) Step index fiber
5. What is the main application of optical fibers in communication ?
- (A) Power transmission
- ☒ (B) Data transmission
- (C) Image processing
- (D) Heat Sensing
6. Which optical device converts light signals into Electrical Signals ?
- (A) Optical Amplifier
- ☒ (B) Photodetector
- (C) Light source
- (D) Multiplexer

7. Which Industry heavily relies on optical fiber communication for high-speed data transfer ?

(A) Construction

(B) Agriculture

(C) Textile

☒ (D) Telecommunication

8. Which device is used to test the quality of a splice ?

☒ (A) OTDR

(B) Power Meter

(C) Spectrum Analyzer

(D) Signal Generator

9. What is the main application of optical fiber splicing in the field ?
- (A) Connecting Large Networks¹
 - (B) Repairing damaged cables
 - (C) Extending the length of fiber links
 - (D) All of these
10. What is the principle that governs the propagation of light in optical fibers ?
- (A) Diffraction
 - (B) Total Internal Reflection
 - (C) Refraction
 - (D) Interferences

Section-B

(Very Short Answer Type Questions)

2 each

11. Name two applications of optical fibers in the medical field.

12. What are the cleaning tools used for optical fibre cable ?

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13. Write two advantages and disadvantages of Light-Emitting-Diode.
14. Which tool is commonly used in fusion splicing ?
15. Why is splicing Important in optical fibre communication ?

Section-C

(Short Answer Type Questions)

3 each

16. What are important sectors of a Green economy ?
17. Discuss the advantages and disadvantages of using LED's in home lighting system
18. What are the safety rules that need to follow while Installing fibre optic cable ?
19. Write various parameters to be considered while Inspect the site for optical fibre cable installation.
20. Explain the different applications of optical fibers.

Section-D

(Long Answer Type Questions)

5 each

21. What is Goal-setting ? How does time management contribute to achieving goals ?

Or

Define Communication. What are the different types of communication ?

22. Explain the types of optical fibre used in communication system and their applications. <https://www.jkboseonline.com>

Or

Define light. What is meant by nature of light ?

23. Why cleaning optical fibre ends is important ? Write some steps in cleaning fibre ends.

Or

What safety precautions should be taken by optical fiber workmanship ?