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Name.....

Reg. No.....

**SIXTH SEMESTER (CBCSS—U.G.) DEGREE EXAMINATION  
APRIL 2026**

Electronics

ELE 6B 16 (A)—OPTICAL COMMUNICATION

(2020 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

**Section A**

*Answer the following Questions (1-12), each question carries 2 marks.*

1. Name the three advantages of optical communication.
2. What is the critical angle ?
3. What are the two basic fibre types ?
4. What is a single mode fibre ?
5. Name the three attenuation mechanisms in optic fibres.
6. Name the unit of attenuation.
7. What is inter modal dispersion ?
8. What is chromatic dispersion ?
9. What is fusion splice ?
10. What is photoconductivity ?
11. What is a photodiode ?
12. What is an optical amplifier ?

(Ceiling : 20 marks)

Turn over

**Section B**

*Answer the following questions (13-19), each question carries 5 marks.*

13. Explain total internal reflection.
14. What is a step index fibre ?
15. Describe the two types of intra modal dispersion.
16. How does a DBR laser work ?
17. What is a photo transistor ?
18. Explain the scattering mechanisms in optical fibres.
19. What is optical amplifier in fiber optics ? Mention the types ?

(Ceiling : 30 marks)

**Section C**

*Answer any **one** question (20-21), carries 10 marks.*

20. Describe the different types of optical fibre classifications.
21. Write notes on different signal distortion mechanisms in optical fibres.

(1 × 10 = 10 marks)