

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T3 EXAMINATION- 2024

B.Tech-VII Semester (CSE/IT/ECE/CE/BT/BI)

COURSE CODE (CREDITS): 18B1WPH732 (3)

MAX. MARKS: 35

COURSE NAME: OPTICAL FIBER NETWORK DESIGN

COURSE INSTRUCTORS: SKK

MAX. TIME: 2 Hours

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*Note: (a) All questions are compulsory.*

*(b) All questions carry equal marks*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

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1. How is Numeric Aperture (NA) and V parameter different for step index and graded index fiber.
2. What is RZ, NRZ and MC in optical fibers. Why is MC called voltage regulating Code
3. Explain the concept of PHY and PMD layers of FDDI network?
4. Draw a Data frame and explain its working.
5. Consider two network configurations of ring network (i) 25 stations on 6 km fiber and (ii) 200 stations on 200 km fiber. Calculate ring latency and efficiency of the systems
6. Explain the working of FDDI with suitable diagrams
7. What is frequency reusability and how is it achieved in WDM ring network