

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATION- 2024

M.Tech-I Semester

COURSE CODE (CREDITS): 10M11CI112 (3)

MAX. MARKS: 15

COURSE NAME: Advanced Computer Networks

COURSE INSTRUCTORS: Er. Ramesh Narwal

MAX. TIME: 1 Hour

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

*(b) Marks are indicated against each question in square brackets.*

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

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Q1. Analyze the advancements in wireless communication technologies, particularly focusing on IEEE 802.16 (WMAX) and Zigbee. How do these technologies cater to different communication needs? [3]

Q2. Discuss the evolution and significance of cellular communication technologies in the context of IoT. How do advanced topics like D2D communication integrate with cellular networks? [3]

Q3. Explain the layered communication architecture with a focus on the OSI and TCP/IP reference models. How do these models help in understanding communication protocols? [3]

Q4. A sender wants to transmit the data 1101011011 using a CRC method with the generator polynomial 1011. Calculate the CRC code that should be appended to the data before transmission. [3]

Q5. What are the key principles of error and flow control in communication protocols? Compare and contrast bit-oriented and byte-oriented protocols with relevant examples. [3]

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