KTUPredict practice paper, Set 2: built from the next most repeated past questions. Not an official KTU paper.

PCCST501 Computer Networks

Practice paper · maximum marks 60

PART A Answer all questions. Each carries 3 marks. (24 marks)

1. List out any three features of World Wide Web. **3**

2. Illustrate layering principle with necessary diagrams. **3**

3. Differentiate between open loop and closed loop approaches for congestion control. Give one example for each. **3**

4. What are the primitives used for a simple transport service (connection oriented)? **3**

5. A bit string 0111101111101111110 needs to be transmitted at the data link layer. If the flag used is 01111110, what is the string actually transmitted after bit stuffing? **3**

6. Differentiate between bridges and switches. **3**

7. Differentiate between the working principles of 4B/5B coding and 8B/10B coding with figures. **3**

8. Explain the working principle of a fiber-optic cable with a suitable diagram. **3**

PART B Answer any one full question from each module. Each question carries 9 marks.

Module 1

9. Summarize the architecture of electronic mail system with neat diagram. **9**

OR

10. What is the purpose of MIME? Explain its header fields. **9**

Module 2

11. Draw the header of IPv4 and explain any three fields. **9**

OR

12. Draw and explain BOOTP message format. **9**

Module 3

13. Consider a binary code that consists of only four valid codewords: 00000, 01011, 10101, 11110. Let the minimum Hamming distance of the code be p, and the maximum number of erroneous bits that can be corrected by the code be q. Calculate the values of p and q. **9**

OR

14. Explain, with a proper diagram, the three phases of Mobile IP. **9**

Module 4

15. Explain the different steps involved in Pulse Code Modulation (PCM) encoding. **9**

OR

16. Explain what is meant by scrambling and its different techniques. **9**

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