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B.TECH. V SEM (NEW SCHEME) MAIN EXAMINATION 2023-24

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING-V

5AM4-03 - Computer Networks

Common to CS, AI, AD, AM, CA, CD, DS, IO, IT, MC, CM, CY

Time : 3 Hours]

[Max. Marks : 70

[Min. Passing Marks :

Instructions to Candidates :

Part–A : Short Answer Type Questions (up to **25** words) 10 × 2 = 20 marks. All 10 questions are compulsory.

Part–B : Analytical/Problem Solving questions 5 × 4 = 20 marks. Candidates have to answer 5 questions out of 7.

Part–C : Descriptive/Analytical/Problem Solving questions 3 × 10 marks = 30 marks. Candidates have to answer 3 questions out of 5.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/ calculated must be stated clearly.

Use of the following supporting materials is permitted during examination. (Mentioned in form no. 205).

1_____ 2_____

Part–A

10×2=20

1. What do you mean by data communication ?
2. What do you mean by network topology ?
3. Explain data framing.
4. What is sliding window ?
5. What is need for classless addressing ?
6. What is subnetting ?
7. What are the services provided by transport layer ?
8. Describe flow control in transport layer ?
9. What is DNS ?
10. Explain about HTTP ?

Part–B

5×4=20

1. Discuss about the ethernet cabling.
2. What is Error ? Explain types of error.
3. Explain the process of Error detection using LRC with example.
4. A network on the internet has a subnet mask of 255.255.240.0. What is the maximum number of hosts it can handle ?
5. Explain Flow control and Buffering in Transport Layer.
6. Write short notes on e-Mail.
7. Write short notes on Wireless Sensor Networks.

Part–C

3×10=30

1. Explain the layers in OSI reference model and illustrate their functions.

2. Explain about ALOHA and CDMA in detail.

3. Explain the role of network layer and transport layer in TCP/IP Model.

4. Explain TCP header format and discuss the relevance of various fields.

5. How name servers are managed in DNS ?

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