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**D.Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY**

**22SYAIML205305**

**Q. Paper Code:**

**KASABA BAWADA KOLHAPUR-416006**

**(An Autonomous Institute)**

**S. Y. B. Tech-CSE-AIML (Semester-III)**

**END SEMESTER EXAMINATION, OCT./NOV.- 2021-22**

COURSE NAME: **Fundamentals of Networking,** COURSE CODE:**201AIMLl205**

Seat No :

**Day and Date: Thursday,27/01/2022**

**Time: 10.00 am to 11.00 am Max. Marks- 50**

**OBJECTIVE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Unit 1 |  | 3 questions of 2 marks each | 6 marks | 20 marks | 40% |
| Unit 2 |  | 3 questions of 2 marks each | 6 marks |
| Unit 3 |  | 4 questions of 2 marks each | 8 marks |
| Unit 4 |  | 5 questions of 2 marks each | 10 marks | 30 marks | 60% |
| Unit 5 |  | 5 questions of 2 marks each | 10 marks |
| Unit 6 |  | 5 questions of 2 marks each | 10 marks |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | |  | Correct  Option |
| Q. 1) | Why was the OSI model developed? | |  |
| A) manufacturers disliked the TCP/IP protocol suite | B) the rate of data transfer was increasing exponentially |
| C) standards were needed to allow any two systems to communicate | D) none of the above |
| Q. 2) | In the OSI model, encryption and decryption are functions of the \_\_\_\_\_\_\_\_ layer. | |  |
| A) Transport | B) Session |
| C) Presentation | D) Application |
| Q.3) | When a host on network A sends a message to a host on network B, which address does the router look at? | |  |
| A) Port | B) Logical |
| C) Physical | D) none of the above |
| Q. 4) | The Internetworking Protocol (IP) is a \_\_\_\_\_\_\_\_ protocol. | |  |
| A) Reliable | B) Connection oriented |
| C) both a and b | D) none of the above |
| Q. 5) | The number of addresses in a class C block is \_\_\_\_\_\_\_. | |  |
| A) 65,534 | B) 16,777,216 |
| C) 256 | D) none of the above |
| Q. 6) | The number of addresses assigned to an organization in classless addressing \_\_\_\_\_\_\_. | |  |
| A) can be any number | B) must be a power of 2 |
| C) must be a multiple of 256 | D) none of the above |
| Q. 7) | What is the first address of a block of classless addresses if one of the addresses is 14.139.120.67/28 ? | |  |
| A) 210.212.192.240 | B) 14.139.120.5 |
| C) 14.139.120.64 | D) 192.168.10.1 |
| Q. 8) | TCP is a \_\_\_\_\_\_\_\_\_\_protocol. | |  |
| A) stream-oriented | B) message-oriented |
| C) block-oriented | D) none of the above |
| Q. 9) | Which one of the following is not a function of network layer? | |  |
| A) routing | B) inter networking |
| C) congestion control | D) error control |
| Q. 10) | Which of the following routing algorithms can be used for network layer design? | |  |  |
| A) shortest path algorithm | B) distance vector algorithm |
| C) link state algorithm | D) all of the mentioned |
| Q. 11) | When the load in the network reaches the network capacity, the packet delay \_\_\_\_\_\_\_\_\_\_\_\_ and the network throughput reaches \_\_\_\_\_\_. | |  |
| A) increases sharply; its minimum | B) increases sharply; its maximum |
| C) decreases sharply; its minimum | D) decreases sharply; its maximum |
| Q.12) | In open loop congestion control, policies are applied | |  |
| A) to prevent congestion before it happens | B) to alleviate congestion after it happens |
| C) to either prevent congestion before it happens or to alleviate congestion after it happens | D) None of the choices are correct |
| Q. 13) | The \_\_\_\_\_\_\_\_\_\_ technique is one of the open loop congestion policy. | |  |
| A) back pressure | B) choke packet |
| C) implicit signaling | D) None of the choices are correct |
| Q. 14) | In the OSI model, what is the main function of the transport layer? | |  |
| A) node-to-node delivery | B) process-to-process message delivery |
| C) synchronization | D) updating and maintenance of routing tables |
| Q. 15) | IPv6 has \_\_\_\_\_\_\_ -bit addresses. | |  |
| A) 32 | B) 16 |
| C) 128 | D) 64 |
| Q. 16) | Find the class of address. 120.10.200.0 | |  |
| A) B | B) A |
| C) D | D) C |
| Q. 17) | The \_\_\_\_\_\_\_\_\_\_\_ technique is one of the close loop congestion policy. | |  |
| A) Acknowledgement policy | B) choke packet |
| C) discarding policy | D) none of the above |
| Q. 18) | A port number is \_\_\_\_\_\_ bits long. | |  |
| A) 8 | B) 16 |
| C) 32 | D) 64 |
| Q. 19) | Which is not a valid LAN topology? | |  |
| A) Star | B) Rectangle |
| C) Ring | D) Bus |
| Q. 20) | The network layer is concerned with \_\_\_\_\_\_\_\_\_\_ of data. | |  |
| A) bits | B) frames |
| C) packets | D) bytes |
| Q.21) | The data link layer takes the packets from \_\_\_\_\_\_\_\_\_ and encapsulates them into frames for transmission. | |  |
| A) network layer | B) physical layer |
| C) transport layer | D) application layer |
| Q. 22) | A 4 byte IP address consists of \_\_\_\_\_\_\_\_\_\_ | |  |
| A) only network address | B) only host address |
| C)  network address & host address | D) network address & MAC address |
| Q. 23) | Physical or logical arrangement of network is \_\_\_\_\_\_\_\_\_\_ | |  |
| A) Topology | B)  Routing |
| C) Networking | D) Control |
| Q. 24) | Transmission delay does not depend on \_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |
| A) Packet length | B) Distance between the routers |
| C) Transmission rate | D) Bandwidth of medium |
| Q. 25) | Which is not a application layer protocol? | |  |
| A) HTTP | B) SMTP |
| C) FTP | D) TCP |

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**END SEMESTER EXAMINATION, OCT/NOV- 2021-22**

COURSE NAME: **Fundamentals of Networking,** COURSE CODE: **201AIMLl205**

Seat No :

**Day and Date: Thursday, 27/01/2022**

**Time: 11.00 am to 12.30 Pm Max. Marks- 50**

***Instructions:***

1. *All Questions are compulsory.*
2. *Figure to the right indicate full marks.*
3. *Give suitable general Instructions*
4. *Any other Course Specific Instructions.*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BT** | **CO’s** | **Q. No.** |  | | **Marks** | **Weightage** | |
|  |  | **Q.1** | **Attempt the following** | | **20** | **40%** | |
| **2** | C205.1 | **a** | *What is Protocol? Explain TCP/IP protocol model with necessary diagram.* | Unit: 1,2 & 3 |  |
| **2** | C205.1 | **b** | *What are the functions performed in data link layer?* |  |
| **2** | C205.2 | **c** | *How classful addressing was designed? Explain Class A with example.* |  |
|  | | | | | | |  | |
|  |  | **Q.2** | **Attempt the following**  **\*\* Optional question shall be given to either sub-question ‘a’ or sub-question ‘b’** | | **15** | **60%** | |
| **2** | C205.2 | **a** | *How link state packets are formed in link state algorithm? How these packets are distributed to all the routers in the subnet?* | Unit: 4,5 & 6 |  |
| **2** | C205.2 | **b** | *What is classless addressing? How the variable length blocks are designed?*  *OR*  *If block of address given to the organization is 122.185.139.248/29. Find first address, last address and size of block?* |  |
|  | | | | | | |  | |
|  |  | **Q.3** | **Attempt the following**  **\*\* Optional question shall be given to either sub-question ‘a’ or sub-question ‘b’** | | **15** |  | |
| **3** | C205.3 | **a** | *What is congestion? Explain any three congestion prevention policies.*  *OR*  *Explain various factors responsible for congestion.* | Unit: 4, 5 & 6 |  |
| **3** | C205.3 | **b** | *What are the functions performed in transport layer?* |  |
|  | | | | | | |  | |

**\*\*\*This is a Question Paper sample Template\*\*\***

**You are requested to ensure that,**

1. The title block of the question paper is as per format
2. The course name is correctly mentioned with correct course code as per S. Y. B. Tech/B.Arch syllabus structure.
3. The name of the examination is correctly mentioned
4. The instructions are appropriate and do not violate the present rules
5. Model answer script should be separate sheet.
6. **Faculty should strictly follow the guidelines/instruction (attached with this format) while setting the question paper.**
7. **Use Times New Roman, 12 Bold, for main question and Times New Roman, 12, for Sub question.**