MARWARI COLLEGE,RANCHI

(UNDER RANCHI UNIVERSITY ,RANCHI)

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Faculty : Raju Manjhi ,Prakash Kumr

SEM: IV(IT)

SUBJECT: Networking

Paper: X

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*Question Bank Students are advised to prepare answers to the questions considering each of the questions as a **Objective –type Questions, Very Short answer Type Questions , Short answer Type Questions, Long Answer Type Questions**. Provide appropriate code segment wherever needed.*

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Group A

(Objective –type Questions)

1. Computer Network is
A. Collection of hardware components and computers B. Interconnected by communication channels
C. Sharing of resources and information   D. All of the Above

2. Protocols are?
A. Agreements on how communication components and DTE's are to communicate
B. Logical communication channels for transferring data
C. Physical communication channels sued for transferring data
D. None of above

3. Two devices are in network if
A. a process in one device is able to exchange information with a process in another device
B. a process is running on both devices
C. PIDs of the processes running of different devices are same   D. none of the mentioned

4. what is a Firewall in Computer Network?
   A. The physical boundary of Network   B. An operating System of Computer Network
   C. A system designed to prevent unauthorized access   D. A web browsing Software

5. The IETF standards documents are called
   A. RFC   B. RCF   C. ID   D. None of the mentioned

6. Which data communication method is used to transmit the data over a serial communication link?
   A. Simplex   B. Half-duplex   C. Full duplex   D. All of above

7. Each IP packet must contain
   A. Only Source address B. Only Destination address   C. Source and Destination address
   D. Source or Destination address

8. What is the minimum header size of an IP packet?
   A. 16 bytes   B. 10 bytes   C. 20 bytes   D. 32 bytes

9. Routing tables of a router keeps track of
   A. MAC Address Assignments   B. Port Assignments to network devices
   C. Distribute IP address to network devices   D. Routes to use for forwarding data to its destination

10. Which of the following is not the External Security Threats?
   A. Front-door Threats   B. Back-door Threats
   C. Underground Threats   D. Denial of Service (DoS)

11. What is the IP Address range of APIPA?
   A. 169.254.0.1 to 169.254.0.254   B. 169.254.0.1 to 169.254.0.255
   C. 169.254.0.1 to 169.254.255.254   D. 169.254.0.1 to 169.254.255.255

12. Which of the following is not the possible ways of data exchange?
   A. Simplex   B. Multiplex   C. Half-duplex   D. Full-duplex

13. The management of data flow between computers or devices or between nodes in a network is called
   A. Flow control   B. Data Control   C. Data Management   D. Flow Management

14. What does the port number in a TCP connection specify?
   A. It specifies the communication process on the two end systems

   B. It specifies the quality of the data & connection C. It specify the size of data   D. All of the above

15. What is the purpose of the PSH flag in the TCP header?
   A. Typically used to indicate end of message   B. Typically used to indicate beginning of message
   C. Typically used to push the message   D. Typically used to indicate stop the message

16. Which of the following protocol is/are defined in Transport layer?
   A. FTP   B. TCP   C. UDP   D. B & C

17. The meaning of Straight-through Cable is
   A. Four wire pairs connect to the same pin on each end   B. The cable Which Directly connects

Computer to Computer

C. Four wire pairs not twisted with each other   D. The cable which is not twisted

18. What is the size of MAC Address?

A. 16-bits   B. 32-bits   C. 48-bits   D. 64-bits

19. Repeater operates in which layer of the OSI model?

A. Physical layer   B. Data link layer   C. Network layer   D. Transport layer

20. Which of the following layer of OSI model also called end-to-end layer?

A. Presentation layer B. Network layer   C. Session layer   D. Transport layer

21. Router operates in which layer of OSI Reference Model?

A. Layer 1 (Physical Layer)   B. Layer 3 (Network Layer)   C. Layer 4 (Transport Layer)

D. Layer 7 (Application Layer)

22. ADSL is the abbreviation of

A. Asymmetric Dual Subscriber Line   B. Asymmetric Digital System Line

C. Asymmetric Dual System Line   D. Asymmetric Digital Subscriber Line

23. How many layers does OSI Reference Model has?

A. 4   B. 5   C. 6   D. 7

24 Bridge works in which layer of the OSI model?

A. Appliation layer   B. Transport layer   C. Network layer   D. Data link layer

25. Why IP Protocol is considered as unreliable?

A. A packet may be lost   B. Packets may arrive out of order

C. Duplicate packets may be generated   D. All of the above

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Group B

(Very Short answer Type Questions)

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1. What do you mean by NOS (Network Operation   System) ?
2. What about NIC (Network Interface Card).
3. Define Bandwidth.
4. What is Communication Model?
5. What is Encoder and Decoder?
6. Describe in brief about switching.
7. Write about Transmission Medium.
8. What is Hub and Gateway?

9. What is the difference between simplex , Half Duplex and Full Duplex Communication ?
10. What is Multiplexing?
11. What do you mean by Framing?
12. What is Congestion Control?
13. What is Function of a Modem and Repeater?
14. What do you mean by Cryptography?
15. Write short Notes on Data Link Layer ?
16. Write Short Notes on
    a. OSI
    b. TDM
    c. FDM
    d. ARQ
    e.   FTP
17. What is Network Topology ?
18. Explain CRC ?

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Group B

(Short answer Type Questions)

1. What is the minimum requirement at Hardware and software for Networking?
2. What is Encryption and Decryption?
3. Differentiate between standard Ethernet and fast Ethernet.
4. What is Modem?
5. What is the main reason the OSI model was created?
6. Write the working principal of Fiber Optics Cable.
7. What is Sub Network ?
8. Explain Manchester Encoding .
9. What is Piggybacking ?
10. Compare OSI model and TCP/IP.
11. Classify networks on basis of Topology .
12. What are advantages and disadvantages of fiber optics ?
13. Explain CSMA and CSMA/CD.
14. Explain STOP and Wait Protocol.

15. What are two types of transmission technology available ?
16. Explain OSI Reference Model.
17. Describe Data Link Layer?
18. What is the advantage and Disadvantage of a star topology?
19. What are two types of transmission technology available ?
20. Explain OSI Reference Model.
21. Describe Data Link Layer?
22. What is the advantage and Disadvantage of a star topology?
23. Distinguish between synchronous and asynchronous transmission..
24. In analyzing ALOHA, we use only one parameter, time; In analyzing CSMA, we use two parameter, space and time. Can you explain the reason?
25. What are the two types of sliding window ARQ error control? How do they differ from one another?
26. Differentiate between TCP and UDP.
27. What should a station do if the channel is busy? What should a station do if the channel is idle?
28. What are the three criteria used to evaluate transmission media?.
29. Describe Error control in stop and wait mechanism and sliding window mechanism

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Group D

(Long Answer Type Questions)

1.Write short notes on following

    a.   Piggybacking

    b.   Scrambling Technique

2. What are the responsibilities of the Transport layer? Explain why public key encryption requires fewer keys than secret key encryption.

3. Explain the ISO -OSI reference model .

4. What is Network Security ? Explain public Key and Private Key Cryptography.

   Explain Circuit, Message and packet Switching .

5. What is Topology . Explain different type of topology used in networking .

6. What is data encoding ? Write about all Data Encoding Techniques.

7. What are the layers in OSI Reference Model / Describe each layer briefly .

8. What are the difference between Hub, Switch , and Router ?

9. Explain TCP/IP Model.

10. What are IP classes and how can you identify the IP class of given an IP address ?

11. Explain HDLC briefly ?

12. Explain Dijkastra`s algorithms briefly ?

13. Explain the different guided medium of data transmission in detail.

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