



COA 301

B.A./B.Sc. Vth SEMESTER EXAMINATION, 2024-25

COMPUTER APPLICATION

(Data Communication & Computer Networks)

AFFIX PRESCRIBED
RUBBER STAMP

Paper ID

(To be filled in the
OMR Sheet)

Date (तिथि) : _____

1393

अनुक्रमांक (अंकों में) :

Roll No. (In Figures)

अनुक्रमांक (शब्दों में) :

Roll No. (In Words) : _____

Time : 1:30 Hrs.

समय : 1:30 घण्टे

Max. Marks : 75

अधिकतम अंक : 75

नोट : पुस्तिका में 50 प्रश्न दिये गये हैं, सभी प्रश्न करने होंगे। प्रत्येक प्रश्न 1.5 अंक का होगा।

Important Instructions :

1. The candidate will write his/her Roll Number only at the places provided for, i.e. on the cover page and on the OMR answer sheet at the end and nowhere else.
2. Immediately on receipt of the question booklet, the candidate should check up the booklet and ensure that it contains all the pages and that no question is missing. If the candidate finds any discrepancy in the question booklet, he/she should report the invigilator within 10 minutes of the issue of this booklet and a fresh question booklet without any discrepancy be obtained.

महत्वपूर्ण निर्देश :

1. अभ्यर्थी अपने अनुक्रमांक केवल उन्हीं स्थानों पर लिखेंगे जो इसके लिए दिये गये हैं, अर्थात् प्रश्न पुस्तिका के मुख्य पृष्ठ तथा साथ दिये गये ओ०एम०आर० उत्तर पत्र पर, तथा अन्यत्र कहीं नहीं लिखेंगे।
2. प्रश्न पुस्तिका मिलते ही अभ्यर्थी को जाँच करके सुनिश्चित कर लेना चाहिए कि इस पुस्तिका में पूरे पृष्ठ हैं और कोई प्रश्न छूटा तो नहीं है। यदि कोई विसंगति है तो प्रश्न पुस्तिका मिलने के 10 मिनट के भीतर ही कक्ष परिप्रेक्षक को सूचित करना चाहिए और बिना त्रुटि की दूसरी प्रश्न पुस्तिका प्राप्त कर लेना चाहिए।

1. TCP/IP model was developed _____ the OSI model.
 - (A) after
 - (B) earlier prior before
 - (C) simultaneous to
 - (D) with no link to

2. The functionalities of the presentation layer include _____.
 - (A) Data compression
 - (B) Data encryption
 - (C) Data description
 - (D) All of the mentioned

3. HFC contains
 - (A) Fiber cable
 - (B) Coaxial cable
 - (C) Twisted Pair Cable
 - (D) Hybrid combination of Fiber cable & Coaxial cable

4. A _____ set of rule and regulations that governs data communication over network.
 - (A) RFCs
 - (B) Standards
 - (C) Protocols
 - (D) Laws

5. A _____ is the physical path over which a message travels source to destination.
 - (A) Path
 - (B) Protocol
 - (C) Medium
 - (D) Route

6. Which layer provides the services to user?
- (A) application layer
 - (B) presentation layer
 - (C) session layer
 - (D) physical layer
7. Which of the following is the network layer protocol for the internet?
- (A) hypertext transfer protocol
 - (B) file transfer protocol
 - (C) Ethernet protocol
 - (D) internet transfer protocol
8. Which of the following primarily uses guided media?
- (A) Cellular telephone system
 - (B) Local telephone system
 - (C) Satellite Communications
 - (D) Radio broadcasting
9. Transmission media are usually categorized as _____.
- (A) fixed or unfixed
 - (B) determinate or indeterminate
 - (C) guided or unguided
 - (D) metallic or nonmetallic
10. Which of the directional communication modes support two way traffic but in only once direction of a time?
- (A) Simplex
 - (B) Half-duplex
 - (C) Three - quarter's duplex
 - (D) Full duplex

11. Communication between a computer and a keyboard involves _____ transmission.
- (A) Hyper
 - (B) Simplex
 - (C) Full-duplex
 - (D) Half-duplex
12. _____ is a collection of point-to-point links that may form a circle.
- (A) LAN
 - (B) MAN
 - (C) WAN
 - (D) Ring topology
13. _____ is a network that covers geographic areas that are larger, such as districts or cities
- (A) LAN
 - (B) MAN
 - (C) WAN
 - (D) NAM
14. Which of the following allows you to connect and login to a remote computer?
- (A) SMTP
 - (B) HTTP
 - (C) FTP
 - (D) Telnet
15. _____ is the technology that connects the machines and people within a site in a small area.
- (A) LAN
 - (B) MAN
 - (C) WAN
 - (D) NAM

16. How is a single channel shared by multiple signals in a computer network?
- (A) Multiplexing
 - (B) Modulation
 - (C) Switching
 - (D) Quantization
17. Telnet is used for:
- (A) Local Login
 - (B) Remote Login
 - (C) File Transfer Procedure
 - (D) Telephone Line Network
18. The loss in signal power while travel through wired cable transmission medium is called
- (A) Attenuation
 - (B) Propagation
 - (C) Scattering
 - (D) Interruption
19. How many layers are there in the ISO OSI reference model?
- (A) 6
 - (B) 7
 - (C) 5
 - (D) 4
20. What is the full form of OSI in Computer Network?
- (A) Optical service implementation
 - (B) Open system interconnection
 - (C) Operating system interface
 - (D) Open service internet

21. Which of the following is an example of Bluetooth ?
- (A) Wide area network
 - (B) Virtual private network
 - (C) Local area network
 - (D) Personal area network
22. A combination of Hardware and Software device that connects two similar LAN or LAN with WAN ?
- (A) Printer
 - (B) Connector
 - (C) Router
 - (D) Interpreter
23. Which of the following is LAN topology ?
- (A) Duplex
 - (B) Bus
 - (C) Car
 - (D) Hub
24. What is a computer network ?
- (A) A device that used to display information on a computer monitor
 - (B) Various type of software used to create documents and presentations
 - (C) A collection of interconnected computers and devices that can communicate and share the resources
 - (D) The security software that protects a computer's internal components
25. In _____ transmission of data, a group of n bits are sent simultaneously.
- (A) parallel
 - (B) serial
 - (C) asynchronous
 - (D) synchronous

26. Serial transmission can be _____.
- (A) parallel
 - (B) synchronous
 - (C) asynchronous
 - (D) both synchronous and asynchronous
27. Which of the following is a type of digital multiplexing method?
- (A) FDM
 - (B) TDM
 - (C) WDM
 - (D) All the above
28. _____ is an analog multiplexing technique usually involving signals in the visible light frequencies.
- (A) FDM
 - (B) TDM
 - (C) WDM
 - (D) MDM
29. For even parity, after adding the redundant bit, the number of 1s :
- (A) Should be even
 - (B) Should be odd
 - (C) 0s should be odd
 - (D) 0 and 1 should be equal
30. Reliable communication means that _____.
- (A) error must be detected
 - (B) error must be corrected
 - (C) error condition be eliminated
 - (D) Both (A) and (B)

31. Ethernet, Token Ring and Token Bus are all different type of _____.
- (A) LANs
 - (B) MANs
 - (C) WANs
 - (D) Extranet
32. _____ signal is digital.
- (A) Baseband
 - (B) Broadband
 - (C) An ethernet
 - (D) Composite
33. _____ signal is analog.
- (A) Baseband
 - (B) Broadband
 - (C) An ethernet
 - (D) None
34. _____ is an example of Half duplex communication.
- (A) Radio set
 - (B) TV
 - (C) Walkie Talkie
 - (D) VSAT
35. Transmission data rate is decided by
- (A) physical layer
 - (B) data link layer
 - (C) network layer
 - (D) transport layer

36. The first operational computer network in the world was the _____ for the United States Department of Defense.
- (A) ARPANET
 - (B) DARPANET
 - (C) ERNET
 - (D) SKYNET
37. A device that converts digital signals into analog signals is _____.
- (A) a packet
 - (B) gateway
 - (C) modem
 - (D) repeater
38. If user get both local and remote echoes, every character type will appear on the screen _____.
- (A) only once
 - (B) twice
 - (C) three times
 - (D) none
39. What protects the coaxial cable from noise?
- (A) Inner conductor
 - (B) Outer conductor
 - (C) Diameter of cable
 - (D) Insulating material
40. Radio channels are attractive medium because _____ :
- (A) Can penetrate walls and building
 - (B) Connectivity can be given to mobile user
 - (C) Can carry signals for long distance
 - (D) All of these

41. Geostationary satellites _____ :
- (A) Are placed at a fixed point above the earth
 - (B) Rotate the earth about a fixed axis
 - (C) Rotate the earth about a varying axis
 - (D) All of the mentioned
42. AbsoluteTelnet is a telnet client for _____ Operating system.
- (A) android
 - (B) windows or DOS
 - (C) phone
 - (D) word
43. A bridge installed between three segments of a LAN has _____ physical addresses.
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
44. A gateway has functionality of :
- (A) Signal conversion
 - (B) Signal amplification
 - (C) Bridge device
 - (D) All functionality of router with protocol conversion
45. Which address is used to identify a process on a host by the transport layer?
- (A) Specific address
 - (B) Port address
 - (C) Logical address
 - (D) Physical address

46. Which address is used on the internet for employing the TCP/IP protocols?
- (A) Physical and logical address
 - (B) Port address
 - (C) Specific address
 - (D) All of the mentioned
47. In the OSI reference model, as a data packet moves from the lower to the upper layers, headers are :
- (A) Added
 - (B) Removed
 - (C) Rearranged
 - (D) Suppressed
48. Which operating mode of telnet is full duplex?
- (A) Default mode
 - (B) Character mode
 - (C) Line mode
 - (D) Server mode
49. Three or more devices share a link in _____ connection.
- (A) Unipoint
 - (B) Multipoint
 - (C) Point to point
 - (D) None of the above
50. The network topology which requires a central controller or hub as connection?
- (A) Ring
 - (B) Bus
 - (C) Star
 - (D) Mesh
