

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(Fifth Semester)

Branch – COMPUTER SCIENCE WITH DATA ANALYTICS

COMPUTER NETWORKS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

1. A short range wireless network called _____ is used to connect the components without wires.
(i) LAN (ii) MAN
(iii) WAN (iv) Bluetooth
2. _____ is an agreement between the communicating parties on how communication is to proceed.
(i) Medium (ii) Interface
(iii) Protocol (iv) Layers
3. _____ are used for cellular phone satellite and wireless LAN communications.
(i) Radio waves (ii) Micro waves
(iii) Infrared waves (iv) None of the above
4. _____ cable consists of an inner core and a second conducting outer sheath.
(i) Twisted pair (ii) Coaxial
(iii) Fiber-optic (iv) Shielded twisted pair
5. Header of a frame generally contains _____.
(i) Synchronization bytes (ii) Addresses
(iii) Frame identifier (iv) All of these
6. Error detection at the data link layer is achieved by _____.
(i) Bit stuffing (ii) Cyclic redundancy codes
(iii) Hamming codes (iv) Equalization
7. A 4 byte IP address consists of _____.
(i) Only network address (ii) Only host address
(iii) Network address and host address (iv) Network address and MAC address
8. The network layer protocol for internet is _____.
(i) Ethernet (ii) Internet protocol
(iii) Hypertext transfer protocol (iv) File transfer protocol
9. Which of the following are transport layer protocol used in networking?
(i) TCP and FTP (ii) UDP and HTTP
(iii) TCP and UDP (iv) HTTP and FTP
10. Application layer offers _____ service.
(i) End to end (ii) Process to process
(iii) Both end to end and process to process (iv) None of the above

Cont...

SECTION - B (25 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 5 = 25)

11. a) Bring out the types of computer networks.
OR
b) State the connection oriented service primitives.
12. a) Narrate about fiber optic cables used in network.
OR
b) Describe about geo-stationary satellites in detail.
13. a) Summarize the services provided to the network layer by the data link layer.
OR
b) What do you know about Data Link Protocol?
14. a) Discuss about flooding in detail.
OR
b) Describe IP protocol and its importance with example.
15. a) Summarize the HTTP methods with example.
OR
b) Explain WAP protocol stack in detail.

SECTION -C (40 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 8 = 40)

16. a) Enumerate TCP/IP reference model in detail.
OR
b) Elucidate protocol hierarchies in detail.
17. a) Discuss about radio transmission and microwave transmission.
OR
b) Elucidate wavelength division multiplexing and time-division multiplexing.
18. a) Discuss about sliding – window protocol.
OR
b) Write short notes on: 1. Error correcting codes
2. Error Detecting codes
19. a) Explain the shortest path routing algorithm in detail.
OR
b) Elucidate Broadcast Routing in detail.
20. a) Analyze the elements of transport protocols in detail.
OR
b) Explain TCP congestion control with example.

Z-Z-Z

END