

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MCA DEGREE EXAMINATION DECEMBER 2023
(First Semester)

Branch – COMPUTER APPLICATIONS

COMPUTER NETWORKS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|---|---------|-----|
| 1 | 1 | Presentation layer is concerned with _____. a) segment b) congestion c) routing d) syntax and semantics | K1 | CO1 |
| | 2 | POP3 stands for _____. a) Point Offline Protocol Version3 b) Package Offset Protocol Version 3 c) Post Office Protocol version 3 d) Post Office Program version 3 | K2 | CO1 |
| 2 | 3 | Each socket has a socket number consisting of the IP address of the host and a 16 bit number local to that host, called a _____. a) Port b) Location c) Address d) None of the above | K1 | CO2 |
| | 4 | UDP transmits segments consisting of a _____ header followed by the payload. a) 8 byte b) 8 bit c) 16 bit d) 16 byte | K2 | CO2 |
| 3 | 5 | When too many packets are present in a part of the subnet, performance degrades. This situation is called _____ control. a) Packet b) Congestion c) Jitter d) RED | K1 | CO3 |
| | 6 | A _____ is a subset of the subnet that has all routers but no loops. a) Spanning tree b) Binary tree c) Sink tree d) Heap tree | K2 | CO3 |
| 4 | 7 | The _____ systems, divide the radio spectrum into time slots. a) Frequency division multiple access b) Time division multiple access c) Code division multiple access d) space division multiple access | K1 | CO4 |
| | 8 | ATM cells(packets) has a fixed length of ____ bytes. a) 32 bytes b) 16 bytes c) 53 bytes d) 4 bytes | K2 | CO4 |
| 5 | 9 | In GSM, the _____ provides and manages radio transmission paths between mobile stations and mobile switching center. a) Radio subsystem b) Network and switching subsystem c) Operation support subsystem d) None of the above | K1 | CO5 |
| | 10 | The data on the forward traffic channel is grouped into _____ frames. a) 10 ms b) 20 ms c) 30 ms d) 40 ms | K2 | CO5 |

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|---|---------|-----|
| 1 | 11.a. | Organize the functions of e-mail system. | K3 | CO1 |
| | (OR) | | | |
| | 11.b. | Construct the TCP/IP reference model. | | |
| 2 | 12.a. | Analyze the TCP segment header. | K4 | CO2 |
| | (OR) | | | |
| | 12.b. | List down the transport service primitives. | | |
| 3 | 13.a. | Build the distance vector algorithm. | K3 | CO3 |
| | (OR) | | | |
| | 13.b. | Construct traffic shaping. | | |
| 4 | 14.a. | Analyze code division multiple access. | K4 | CO4 |
| | (OR) | | | |
| | 14.b. | Categorize the wireless data services. | | |
| 5 | 15.a. | Explain GSM services and features. | K5 | CO5 |
| | (OR) | | | |
| | 15.b. | Explain reverse CDMA channel. | | |

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|---|---------|-----|
| 1 | 16 | Expalin about domain name system. | K5 | CO1 |
| 2 | 17 | Classify the elements of transport protocol. | K4 | CO2 |
| 3 | 18 | Analyze the link state routing algorithm. | K4 | CO3 |
| 4 | 19 | Discuss about traffic routing in wireless networks. | K6 | CO4 |
| 5 | 20 | Explain GSM channel. | K5 | CO4 |

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END