1. Which protocol is commonly used for routing between autonomous systems in the Internet?
a) RIP
b) OSPF
c) BGP
d) TCP
Answer: c) BGP
Explanation: Border Gateway Protocol (BGP) is an exterior gateway protocol used to exchange routing information between different autonomous systems on the Internet.

2. What is the concept of a hidden network in BGP?
a) A network that is not advertised to neighboring routers
b) A network with limited access permissions
c) A network with encrypted data transmission
d) A network that is unreachable due to routing issues
Answer: a) A network that is not advertised to neighboring routers
Explanation: In BGP, a hidden network refers to a network prefix that is not advertised to neighboring routers, often used for internal purposes within an autonomous system.

3. Which protocol is an Interior Gateway Protocol (IGP)?
a) BGP
b) OSPF
c) TCP
d) UDP
Answer: b) OSPF
Explanation: OSPF (Open Shortest Path First) is an Interior Gateway Protocol used for routing within an autonomous system.

4. What is the primary function of an Exterior Gateway Protocol (EGP)?
a) Routing within an autonomous system
b) Routing between autonomous systems
c) Routing within a local network
d) Ensuring data integrity during transmission
Answer: b) Routing between autonomous systems
Explanation: An Exterior Gateway Protocol (EGP) is designed for routing between different autonomous systems.

5. Which protocol is an example of an Interior Gateway Protocol that uses distance-vector routing?
a) OSPF
b) BGP
c) RIP
d) TCP
Answer: c) RIP
Explanation: RIP (Routing Information Protocol) is an Interior Gateway Protocol that uses distance-vector routing to determine the best path to a destination network.

6. What is the function of multiplexing in networking?
a) Ensuring secure data transmission
b) Combining multiple data streams into a single stream
c) Managing network congestion
d) Detecting errors in data transmission
Answer: b) Combining multiple data streams into a single stream
Explanation: Multiplexing is the process of combining multiple data streams into a single stream for transmission over a shared medium.

7. Which protocol is responsible for establishing and maintaining reliable connections between hosts on a network?
a) RIP
b) OSPF
c) TCP
d) UDP
Answer: c) TCP
Explanation: Transmission Control Protocol (TCP) is responsible for establishing and maintaining reliable connections between hosts on a network.

8. What is the purpose of the Three-Way Handshake in TCP?
a) To synchronize sequence numbers
b) To establish a secure connection
c) To exchange routing information
d) To manage congestion control
Answer: a) To synchronize sequence numbers
Explanation: The Three-Way Handshake in TCP is used to synchronize sequence numbers and establish a connection between client and server.

9. Which TCP algorithm adjusts the size of the transmission window based on network conditions?
a) Silly Window Syndrome
b) Flow control
c) Variable window size
d) Three-Way Handshake
Answer: c) Variable window size
Explanation: The Variable window size in TCP adjusts the size of the transmission window

based on network conditions to optimize data transfer.

10. Which TCP algorithm helps to avoid unnecessary retransmissions of data?
a) Silly Window Syndrome
b) Flow control
c) Timeout and Retransmission
d) Three-Way Handshake
Answer: c) Timeout and Retransmission
Explanation: The Timeout and Retransmission algorithm in TCP helps to avoid unnecessary retransmissions of data by detecting lost packets and retransmitting them after a timeout period.

11. Which protocol is commonly used for real-time communication applications such as VoIP and video streaming?
a) TCP
b) UDP
c) BGP
d) OSPF
Answer: b) UDP
Explanation: User Datagram Protocol (UDP) is commonly used for real-time communication applications due to its lower overhead and faster transmission speed compared to TCP.

12. What is the primary advantage of UDP over TCP for certain types of applications?
a) Guaranteed delivery of packets
b) Connection-oriented communication
c) Lower overhead and faster transmission speed
d) Support for flow control

Answer: c) Lower overhead and faster transmission speed
Explanation: UDP has lower overhead and faster transmission speed compared to TCP, making it suitable for applications where timely delivery is prioritized over reliability.

13. Which TCP variant introduced the Selective Acknowledgment (SACK) mechanism for improving performance?
a) Tahoe
b) Reno
c) Silly Window Syndrome
d) Flow control
Answer: b) Reno
Explanation: TCP Reno introduced the Selective Acknowledgment (SACK) mechanism to improve performance by allowing the receiver to acknowledge out-of-order packets.

14. What does TCP's Synchronization mechanism ensure?
a) Secure data transmission
b) Accurate sequence number tracking
c) Efficient use of network bandwidth
d) Real-time communication
Answer: b) Accurate sequence number tracking
Explanation: TCP's Synchronization mechanism ensures accurate sequence number tracking between sender and receiver for reliable data transmission.

15. Which UDP header field is used for checksum verification?
a) Source port
b) Destination port
c) Length

d) Checksum
Answer: d) Checksum
Explanation: The checksum field in the UDP header is used for verifying the integrity of the UDP packet.

16. In TCP, what is the purpose of flow control?
a) To synchronize sequence numbers
b) To avoid unnecessary retransmissions
c) To manage congestion
d) To regulate the flow of data between sender and receiver
Answer: d) To regulate the flow of data between sender and receiver
Explanation: Flow control in TCP regulates the flow of data between sender and receiver to ensure efficient transmission without overwhelming the receiver.

17. Which protocol is commonly used for routing within a single autonomous system?
a) BGP
b) OSPF
c) RIP
d) TCP
Answer: b) OSPF
Explanation: OSPF (Open Shortest Path First) is commonly used for routing within a single autonomous system as an Interior Gateway Protocol.

18. What is the purpose of TCP’s Silly Window Syndrome avoidance mechanism?
a) To synchronize sequence numbers
b) To regulate the flow of data
c) To prevent small segments from being transmitted inefficiently

d) To manage congestion control
Answer: c) To prevent small segments from being transmitted inefficiently
Explanation: TCP's Silly Window Syndrome avoidance mechanism prevents small segments from being transmitted inefficiently by delaying the transmission until a sufficient amount of data is available.

19. Which TCP variant introduced the concept of Fast Retransmit?
a) Tahoe
b) Reno
c) SACK
d) Flow control
Answer: b) Reno
Explanation: TCP Reno introduced the concept of Fast Retransmit to quickly retransmit lost packets upon the receipt of duplicate acknowledgments.

20. Which UDP field indicates the length of the UDP datagram including the header?
a) Source port
b) Destination port
c) Length
d) Checksum
Answer: c) Length
Explanation: The length field in the UDP header indicates the length of the UDP datagram including the header.

21. Which TCP algorithm adjusts the transmission rate based on network congestion?
a) Silly Window Syndrome
b) Flow control

c) Congestion control
d) Three-Way Handshake
Answer: c) Congestion control
Explanation: The Congestion control algorithm in TCP adjusts the transmission rate based on network congestion to avoid network congestion collapse.

22. Which protocol is responsible for determining the best path to a destination network within an autonomous system?
a) BGP
b) OSPF
c) RIP
d) TCP
Answer: b) OSPF
Explanation: OSPF (Open Shortest Path First) is responsible for determining the best path to a destination network within an autonomous system.

23. What is the primary function of BGP's UPDATE message?
a) Advertising new routes
b) Establishing connections
c) Synchronizing sequence numbers
d) Managing congestion control
Answer: a) Advertising new routes
Explanation: BGP's UPDATE message is primarily used for advertising new routes to neighboring routers.

24. Which TCP variant introduced the concept of Explicit Congestion Notification (ECN)?
a) Tahoe

b) Reno
c) SACK
d) Flow control
Answer: b) Reno
Explanation: TCP Reno introduced the concept of Explicit Congestion Notification (ECN) to provide early notification of network congestion to sender and receiver.

25. What does TCP's Flow Control mechanism aim to prevent?
a) Network congestion
b) Packet loss
c) Slow transmission rates
d) Receiver buffer overflow
Answer: d) Receiver buffer overflow
Explanation: TCP's Flow Control mechanism aims to prevent receiver buffer overflow by regulating the flow of data from sender to receiver.

26. Which TCP header field indicates the size of the data in the TCP segment?
a) Source port
b) Destination port
c) Sequence number
d) Data offset
Answer: d) Data offset
Explanation: The data offset field in the TCP header indicates the size of the data in the TCP segment.

27. What is the primary purpose of UDP's Message Encapsulation?
a) Ensuring data integrity

b) Establishing connections
c) Regulating flow control
d) Adding a UDP header to the data
Answer: d) Adding a UDP header to the data
Explanation: UDP's Message Encapsulation involves adding a UDP header to the data before transmission over the network.

28. Which TCP variant introduced the concept of Time-Based Retransmission?
a) Tahoe
b) Reno
c) SACK
d) Flow control
Answer: a) Tahoe
Explanation: TCP Tahoe introduced the concept of Time-Based Retransmission to retransmit lost packets after a certain timeout period.

29. In BGP, what is the function of the KEEPALIVE message?
a) Advertising new routes
b) Establishing connections
c) Monitoring the liveliness of the connection
d) Negotiating parameters for the connection
Answer: c) Monitoring the liveliness of the connection
Explanation: In BGP, the KEEPALIVE message is used to monitor the liveliness of the connection between BGP peers.

30. What is the purpose of the TCP header's Urgent Pointer field?
a) To indicate the end of the data segment

b) To specify urgent data requiring immediate attention
c) To synchronize sequence numbers
d) To negotiate window size
Answer: b) To specify urgent data requiring immediate attention
Explanation: The Urgent Pointer field in the TCP header is used to specify urgent data requiring immediate attention by the receiver.

Related posts:

1. Review of traditional networks MCQ
2. Wireless LAN MCQ
3. Mobile transport layer MCQ
4. Introduction to Energy Science MCQ
5. Ecosystems MCQ
6. Biodiversity and its conservation MCQ
7. Environmental Pollution mcq
8. Social Issues and the Environment MCQ
9. Field work mcq
10. Discrete Structure MCQ
11. Set Theory, Relation, and Function MCQ
12. Propositional Logic and Finite State Machines MCQ
13. Graph Theory and Combinatorics MCQ
14. Relational algebra,Functions and graph theory MCQ
15. Data Structure MCQ
16. Stacks MCQ
17. TREE MCQ
18. Graphs MCQ

19. Sorting MCQ
20. Digital Systems MCQ
21. Combinational Logic MCQ
22. Sequential logic MCQ
23. Analog/Digital Conversion, Logic Gates, Multivibrators, and IC 555 MCQ
24. Introduction to Digital Communication MCQ
25. Introduction to Object Oriented Thinking & Object Oriented Programming MCQ
26. Encapsulation and Data Abstraction MCQ
27. MCQ
28. Relationships – Inheritance MCQ
29. Polymorphism MCQ
30. Library Management System MCQ
31. Numerical Methods MCQ
32. Transform Calculus MCQ
33. Concept of Probability MCQ
34. Algorithms, Designing MCQ
35. Study of Greedy strategy MCQ
36. Concept of dynamic programming MCQ
37. Algorithmic Problem MCQ
38. Trees, Graphs, and NP-Completeness MCQ
39. The Software Product and Software Process MCQ
40. Software Design MCQ
41. Software Analysis and Testing MCQ
42. Software Maintenance & Software Project Measurement MCQ
43. Computer Architecture, Design, and Memory Technologies MCQ
44. Basic Structure of Computer MCQ
45. Computer Arithmetic MCQ

46. I/O Organization MCQ
47. Memory Organization MCQ
48. Multiprocessors MCQ
49. Introduction to Operating Systems MCQ
50. File Systems MCQ
51. CPU Scheduling MCQ
52. Memory Management MCQ
53. Input / Output MCQ
54. Operating Systems and Concurrency
55. Software Development and Architecture MCQ
56. Software architecture models MCQ
57. Software architecture implementation technologies MCQ
58. Software Architecture analysis and design MCQ
59. Software Architecture documentation MCQ
60. Introduction to Computational Intelligence MCQ
61. Fuzzy Systems MCQ
62. Genetic Algorithms MCQ
63. Rough Set Theory MCQ
64. Introduction to Swarm Intelligence, Swarm Intelligence Techniques MCQ
65. Neural Network History and Architectures MCQ
66. Autoencoder MCQ
67. Deep Learning MCQs
68. RL & Bandit Algorithms MCQs
69. RL Techniques MCQs
70. Big Data MCQ
71. Hadoop and Related Concepts MCQ
72. Hive, Pig, and ETL Processing MCQ

73. NoSQL MCQs Concepts, Variations, and MongoDB
74. Mining social Network Graphs MCQ
75. Mathematical Background for Cryptography MCQ
76. Cryptography MCQ
77. Cryptographic MCQs
78. Information Security MCQ
79. Cryptography and Information Security Tools MCQ
80. Data Warehousing MCQ
81. OLAP Systems MCQ
82. Introduction to Data& Data Mining MCQ
83. Supervised Learning MCQ
84. Clustering & Association Rule mining MCQ
85. Fundamentals of Agile Process MCQ
86. Agile Projects MCQs
87. Introduction to Scrum MCQs
88. Introduction to Extreme Programming (XP) MCQs
89. Agile Software Design and Development MCQs
90. Machine Learning Fundamentals MCQs
91. Neural Network MCQs
92. CNNs MCQ
93. Reinforcement Learning and Sequential Models MCQs
94. Machine Learning in ImageNet Competition mcq
95. Computer Network MCQ
96. Data Link Layer MCQ
97. MAC Sub layer MCQ
98. Network Layer MCQ
99. Transport Layer MCQ

100. Raster Scan Displays MCQs
101. 3-D Transformations MCQs
102. Visualization MCQ
103. Multimedia MCQs
104. Introduction to compiling & Lexical Analysis MCQs
105. Syntax Analysis &Syntax Directed Translation MCQs
106. Type Checking & Run Time Environment MCQs
107. Code Generation MCQs
108. Code Optimization MCQs
109. INTRODUCTION Knowledge Management MCQs
110. Organization and Knowledge Management MCQs
111. Telecommunications and Networks in Knowledge Management MCQs
112. Components of a Knowledge Strategy MCQs
113. Advanced topics and case studies in knowledge management MCQs
114. Conventional Software Management MCQs
115. Software Management Process MCQs
116. Software Management Disciplines MCQs
117. Rural Management MCQs
118. Human Resource Management for rural India MCQs
119. Management of Rural Financing MCQs
120. Research Methodology MCQs
121. Research Methodology MCQs
122. IoT MCQs
123. Sensors and Actuators MCQs
124. IoT MCQs: Basics, Components, Protocols, and Applications
125. MCQs on IoT Protocols
126. IoT MCQs

127. INTRODUCTION Block Chain Technologies MCQs
128. Understanding Block chain with Crypto currency MCQs
129. Understanding Block chain for Enterprises MCQs
130. Enterprise application of Block chain MCQs
131. Block chain application development MCQs
132. MCQs on Service Oriented Architecture, Web Services, and Cloud Computing
133. Utility Computing, Elastic Computing, Ajax MCQs
134. Data in the cloud MCQs
135. Cloud Security MCQs
136. Issues in cloud computinG MCQs
137. Introduction to modern processors MCQs
138. Data access optimizations MCQs
139. Parallel Computing MCQs
140. Efficient Open MP Programming MCQs
141. Distributed Memory parallel programming with MPI MCQs
142. Review of Object Oriented Concepts and Principles MCQs.
143. Introduction to RUP MCQs.
144. UML and OO Analysis MCQs
145. Object Oriented Design MCQs
146. Object Oriented Testing MCQs
147. CVIP Basics MCQs
148. Image Representation and Description MCQs
149. Region Analysis MCQs
150. Facet Model Recognition MCQs
151. Knowledge Based Vision MCQs
152. Game Design and Semiotics MCQs
153. Systems and Interactivity Understanding Choices and Dynamics MCQs

154. Game Rules Overview Concepts and Case Studies MCQs
155. IoT Essentials MCQs
156. Sensor and Actuator MCQs
157. IoT Networking & Technologies MCQs
158. MQTT, CoAP, XMPP, AMQP MCQs
159. IoT MCQs: Platforms, Security, and Case Studies
160. MCQs on Innovation and Entrepreneurship
161. Innovation Management MCQs
162. Stage Gate Method & Open Innovation MCQs
163. Innovation in Business: MCQs
164. Automata Theory MCQs
165. Finite Automata MCQs
166. Grammars MCQs
167. Push down Automata MCQs
168. Turing Machine MCQs
169. Database Management System (DBMS) MCQs
170. Relational Data models MCQs
171. Data Base Design MCQs
172. Transaction Processing Concepts MCQs
173. Control Techniques MCQs
174. DBMS Concepts & SQL Essentials MCQs
175. DESCRIPTIVE STATISTICS MCQs
176. INTRODUCTION TO BIG DATA MCQ
177. BIG DATA TECHNOLOGIES MCQs
178. PROCESSING BIG DATA MCQs
179. HADOOP MAPREDUCE MCQs
180. BIG DATA TOOLS AND TECHNIQUES MCQs

181. Pattern Recognition MCQs
182. Classification Algorithms MCQs
183. Pattern Recognition and Clustering MCQs
184. Feature Extraction & Selection Concepts and Algorithms MCQs
185. Pattern Recognition MCQs
186. Understanding Cybercrime Types and Challenges MCQs
187. Cybercrime MCQs
188. Cyber Crime and Criminal justice MCQs
189. Electronic Evidence MCQs
190. Computer Graphics Multimedia PYQ
191. HTML MCQs
192. Basic concepts of OOP MCQS
193. File System MCQs
194. Social Issues and the Environment mcqs
195. FM Modulation & Transmission MCQs
196. Introduction to ICs and Op-Amps MCQs
197. Efficient Computation of the DFT mcqs
198. OSI model mcqs
199. Satellite and Earth Segment MCQs
200. PHYSIOLOGY AND TRANSDUCERS mcqs