

**BCA V Sem**  
**Internet Technology and Applications**  
**QUESTION BANK**  
**(C 502)**

1. What are the functions of Gateway? Discuss in detail?
2. What are the functions of Router? Discuss in detail?
3. Why is adaptive routing superior from non- adaptive routing?
4. What is the function of bridge? Discuss in detail?
5. How does a router differ from a bridge?
6. Contrast and compare distance vector routing with link state routing?
7. What algorithm does link state routing use to calculate the routing tables?
8. What are two most popular routing algorithms? Describe in details?
9. What are the three switching methods? Discuss in details?
10. What are the two types of switches used in circuit switching? Discuss both of them in detail?
11. A message is broken up into three pieces. Discuss the transmission of the packets using the datagram approach to packet switching.
12. A message is broken up into three pieces. Discuss the transmission of the packets using a permanent virtual circuit
13. A message is broken up into three pieces. Discuss the transmission of the packets using a switched virtual circuit
14. Compare the mechanism of a space-division switch to the mechanism of a time-division switch.
15. What do you mean by Congestion Control in the network? Discuss in detail.
16. Describe the Leaky Bucket Algorithm with reference to congestion control?
17. Describe the Token Bucket Algorithm with reference to congestion controls?
18. What's are functions of Internet Protocols (IP)? Discuss in detail?
19. Why is JAVA known as platform independent language?
20. List at least ten major differences between C and JAVA.
21. How can we say that Java is more secure than other languages?

22. Discuss the various features of Java.
23. Describe the structure of a typical Java program. What is the task of the main method in a Java program?
24. Distinguish between the following terms:
  - a. Objects and Classes
  - b. Data Abstraction and Data encapsulation
25. Write a program to convert the given temperature in Fahrenheit to Celsius using the following conversion formula  $C = (F - 32) / 1.8$  and display the values in a tabular form.
26. Given a list of marks ranging from 0 to 100, write a program in Java to compare and print the number of student who have obtained marks
  - (a) in the range 81 to 100,
  - (b) in the range 61 to 80,
  - (c) in the range 41 to 60,
  - (d) in the range 0 to 40.

The program should use a minimum number of if statements.

27. Describe different forms of inheritance with example in Java.
28. What is an applet? Discuss the various stages in the lifecycle of an applet.
29. What are packages? What are the uses of packages?
30. What do you understand by garbage collection in Java.
31. Distinguish between final and finalize.
32. Incorporate the following in a single HTML document. BOLD, ITALICS, SMALL, SUPERScript, SUBSCRIPT, UNDERLINE
33. Explain the difference between the ordered list and unordered list with example.
34. Write a code in HTML to insert an image and align the text to the right side of the image.
35. Create a form with all the attributes and the tags available in HTML.
36. Differentiate between the following:
  - a. Inheritance and polymorphism
  - b. Dynamic binding and message binding
37. What are scripting languages? Explain the features of Java Script and VB Script.
38. Write short notes on:
  - a. WWW
  - b. Web Browser
  - c. FTP
39. What is a Web-Browser? How it is different from a search-engine? Explain the browsers used for Windows, UNIX and Linux Systems.

40. Explain the functions and Working of HTTP.
41. Write short notes on following
  - a. Security Socket Layer(SSL)
  - b. Multicast Multiplexing
  - c. DOS Vs DDoS(Distributed denial of services)
  - d. IANA(Internet Assigned Number Authority)
42. Write short notes on following
  - a. XML
  - b. PERL
  - c. VBScript
  - d. JavaScript
43. What is CGI Script? What is a query string used for in CGI programming?
44. Write html program to implement the following:
  - a. A frame consisting images with rolling over effect.
  - b. A table to Display score-board of a cricket –game.
45. Write short notes on following
  - a. Internet Explores Vs Netscape Navigator
  - b. TLI Interface
  - c. ATM Switch
46. Write short notes on following
  - a. Video Conferencing
  - b. Active-X
  - c. Telnet
48. Discuss the role of ISP. List out four ISP.
49. What do you understand by Home Page? List the role of hyper – link and link in a web page.
50. Write a program in HTML to design the home page and five other link pages of a school website to display the following detail
  - a. Admission
  - b. Academic
  - c. Sport
  - d. Infrastructure
  - e. Result
51. What are the three major multiplexing techniques? What is the purpose of guard band?
52. How does FDM combine multiple signals into one and how is one FDM signal combined into its original components?
53. What are the two types of TDM?
54. How are HTTP and the WWW related to the internet?
55. Compare and contrast the three types of WWW documents.
56. What is the relationship between CGI and dynamic documents?
57. What is the difference between a user agent(UA) and mail transfer agent (MTA)?
58. What three functions can SNMP perform to manage network devices?
59. What is the purpose of the Domain Name System?

60. Why is an application such as POP needed for electronic messaging?
61. What web technologies are used for server side programming? Discuss any one.
62. What web technologies are used for Client Side programming? Discuss any one.
63. What are the differences between Java applets and Java applications?
64. Compare Java Script with Java.
65. What is the difference between a dial up and a direct internet connection?
66. What is the difference between a Gopher and a WAIS?
67. Differentiate between File Transfer Protocol and Trivial File Transfer Protocol.
68. Differentiate between Domain Name System and an IP address.
69. Why do we need bridges? Discuss the various types of bridge.
70. Write short notes on:
  - a. Repeaters
  - b. Hubs
  - c. Switch
71. Write a Java Script code block using arrays and generate the current date in words, this should include the day, the month and year
72. Write a Java Script code block, which checks the content entered in the forms text element. If the text entered is in the lower case, convert to upper case.
73. Differentiate between HTML and DHTML.
74. Differentiate between TCP and UDP.
75. Describe the SMTP protocol in detail.