



## BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – BCA-2022

Course Name – Internet Technologies

Course Code - BCAE501A

( Semester V )

Library  
Brainware University  
398, Ramkrishnapur Road, Barasat  
Kolkata, West Bengal-700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify the protocol used for translating domain names into IP addresses essential for web navigation.
  - a) HTTP
  - b) DHCP
  - c) DNS
  - d) NAT
- (ii) What is the primary purpose of networking?
  - a) To connect multiple computers together
  - b) To increase the speed of a single computer
  - c) To store data
  - d) To enhance the performance of software
- (iii) What is DNS stands for
  - a) Domain Network System
  - b) Domain Name System
  - c) Digital Network Security
  - d) Data Name Service
- (iv) What is the main function of HTTP?
  - a) To send and receive emails
  - b) To establish secure network connections
  - c) To transfer web pages from servers to browsers
  - d) To resolve domain names to IP addresses
- (v) What is IP masquerading?
  - a) A method of hiding internal IP addresses behind a single public IP address
  - b) A type of IP address used only in secure networks
  - c) A protocol used to translate domain names
  - d) A software used to encrypt data
- (vi) Which type of routing protocol is used within a single autonomous system?
  - a) Inter-domain routing protocol
  - b) Intra-domain routing protocol
  - c) BGP
  - d) OSPF
- (vii) Which protocol is used for multicast routing?

- a) RIP  
c) OSPF  
b) IGMP  
d) BGP
- (viii) Which layer of the OSI model does the Internet Protocol (IP) operate at?  
a) Physical layer  
b) Data Link layer  
c) Network layer  
d) Transport layer
- (ix) Show the correct answer to which of the following programming language is commonly used for server-side scripting in web development.  
a) HTML  
b) CSS  
c) JavaScript  
d) PHP
- (x) Show the correct answer to what are tables in web programming.  
a) Display information which are already accessed by the user  
b) Containing more number of rows than columns  
c) To only store data to be accessed later by the user  
d) Display information in rows and columns used to display all manner of data that fits in a grid
- (xi) Identify the correct answer to which of the following properties defines labels for a list of items.  
a) list-style-type  
b) list-style-image  
c) list-stylelist-style-type  
d) none of the mentioned
- (xii) Identify the correct answer to which CSS property is used to specify the width of an element.  
a) padding  
b) margin  
c) height  
d) width
- (xiii) Choose the function that is used to get the length of a string in PHP.  
a) strlen()  
b) strlenth()  
c) length()  
d) strsize()
- (xiv) Choose the default method for submitting a form in PHP.  
a) GET  
b) POST  
c) PUT  
d) DELETE
- (xv) Choose the correct way to delete a file in PHP.  
a) delete(\$file);  
b) remove(\$file);  
c) unlink(\$file);  
d) drop(\$file);

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain the use of the "form" element in HTML and its essential attributes. (3)
3. Build a basic HTML form that includes text input, a radio button, a checkbox, and a submit button. (3)
4. Compare and contrast the alert and console.log methods in JavaScript. (3)
5. What is the role of DNS in networking? (3)
6. Explain Virtual Private Network (VPN) and how does it work? (3)

OR

Explain IP Security (IPsec) and what are its primary components? (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Demonstrate an array in JavaScript ,how do you declare and access arrays? (5)
  8. Explain the importance of password policies in ensuring network security. (5)
  9. How does Secure Socket Layer (SSL) ensure secure communication over the internet? (5)
  10. Define and differentiate between unicast and multicast routing. (5)
  11. Assess the effectiveness of various hardware and software technologies in ensuring network security. (5)
  12. Evaluate different authentication methods used in network security. (5)
- OR**
- Critically evaluate the security and privacy benefits of using a VPN. (5)

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