

2019

INTERNET AND WEB TECHNOLOGY

Full Marks : 70

Time : Three hours

The figures in the margin indicate full marks for the questions.

Question Nos. 1 & 2 are compulsory and answer any three from the rest.

1. Fill up the blanks : 1×10=10

(a) The _____ layer is the topmost layer in the OSI model.

- (A) physical
(B) transport
(C) session
(D) application

Contd.

(b) Encryption is handled by the _____ layer.

- (A) data link
(B) transport
(C) session
(D) presentation

(c) The com domain name refers to _____.

- (A) common
(B) commercial
(C) computer
(D) None of the above

(d) The world's first real Web browser was _____.

- (A) Mosaic
(B) Internet Explorer
(C) Netscape Navigator
(D) None of the above

(e) Generally, the closing HTML tag is indicated by the _____ character.

- (A) *
(B) /
(C) \
(D) @

(f) The _____ tag can be used to create hyperlinks.

- (A) anchor
(B) arrow
(C) link
(D) pointer

(g) JavaScript is _____ language.

- (A) interpreted
(B) compiled
(C) interpreted and compiled
(D) None of the above

(h) PHP stands for _____.

- (A) Hypertext Preprocessor
(B) Personal Hypertext Preprocessor
(C) Personal HTML Processor
(D) None of the above

(i) JavaScript is contained inside the _____ tags.

- (A)
(B) <script>.....</script>
(C) <head>.....</head>
(D) <body>.....</body>

(j) The main page of a Web site is generally called the _____.

- (A) chief page
(B) main page
(C) home page
(D) house page

(b) Create a static HTML page that displays the following table : 5

Book name	Author
Operating System	Godbole
Data Communication	Stallings
Web Technologies	Kahate
Mobile Communication	Jochen

5. (a) Write the difference between Client side scripting language and Server side scripting Language. 4

(b) Briefly explain the characteristics of LAN, MAN and WAN. 2+2+2=6

6. (a) Write PHP code to find the larger of two numbers. 5

(b) Write the JavaScript code to enter a number and check whether it is even or odd. 5

2. Answer very briefly : 2×5=10

(a) What is Ethernet ?

(b) Give two examples of network topology.

(c) Give two examples of Web browsers.

(d) What are the two parts of an IP address ?

(e) Give two examples of transport layer protocol.

3. Explain the different layers of OSI reference model. 10

4. (a) Discuss the use of HTML tags, i.e., Title, Heading, Paragraphs, Bold letter and Line breaks with an example. 5

7. Write short notes on : (any two) 5×2=10

(a) E-mail

(b) FTP (file transfer protocol)

(c) Internet security

(d) Impact of Internet on society.

2019

**OBJECT ORIENTED
PROGRAMMING WITH C++**

Full Marks : 70

Time : Three hours

**The figures in the margin indicate
full marks for the questions.**

1. Answer the following questions : $1 \times 5 = 5$
- (a) What do you mean by object oriented programming ?
 - (b) Define encapsulation.
 - (c) Write one difference between variable and object.
 - (d) Write one difference between while and do-while loop.
 - (e) What do you mean by null pointer ?
2. Answer the following questions : $2 \times 5 = 10$
- (a) What are the basic differences between basic data types and user defined data types ?
 - (b) Write the difference between pass by value and pass by reference in function.
 - (c) How do you declare member in a class ? Give one example.
 - (d) What do you mean by dynamic initialization of objects ?
 - (e) What do you mean by array of pointers ? Give one example.
3. Answer **any four** questions : $5 \times 4 = 20$
- (a) Define constructor and its types.
 - (b) What are the basic advantages of object oriented programming ?
 - (c) Briefly explain the dynamic binding with an example.
 - (d) Write the basic differences between early binding and late binding.

- (e) Write a C++ program using class whether a given number is even or odd.
- (f) Write a C++ program using class to find the summation of n numbers.

4. Answer **any five** questions : $7 \times 5 = 35$

- (a) What do you mean by inheritance ? Write a C++ program to implement multiple inheritance.
- (b) Write a program to create a class 'Doctor' which stores information such as D-id, D-name, D-specialization, D-age. Write member functions for creating and displaying the values of various class and objects.
- (c) Write a C++ program to implement the copy constructor and parameterized constructor.
- (d) What are the different operators used in C++ language ? Give example of each operator. Also write the operator precedence and write the type conversions technique with example.
- (e) What do you mean by public, private and protected access ? Give example of each access. Also write any C++ program in which we can use these access specifiers.
- (f) Briefly explain the virtual function with an example and use a program.
- (g) Write a C++ program using class whether a string is palindrome or not.
- (h) Briefly explain the polymorphism and operator overloading with an example.