

Answer any 5 questions from 1 to 6. Each carries 1 score.

(5 × 1 = 5)

1. Queue organizes data based on _____ principle.
(a) FIFO (b) LIFO
(c) FILO (d) LILO
2. Which hyperlink protocol is used to create an e-mail hyperlink ?
(a) http (b) mailto:
(c) href (d) pop
3. In JavaScript, which of the following keyword is used to convert data into number type ?
(a) Int (b) Integer
(c) Num() (d) Number()
4. In PHP, _____ is a collection of key and value pairs.
5. The scientific study associated with the design, fabrication, theory and application of robots is called _____.
6. A virtual world where communication takes place only over the internet is called _____.

Answer any 9 questions from 7 to 18. Each carries 2 scores.

(9 × 2 = 18)

7. What is memory leak ?
8. Compare empty tag and container tag.

9. (a) Expand CSS. (1)
 (b) Which are the different ways to implement CSS in a web page? (1)
10. Write short note on lists in HTML.

11. Complete the table given below :

Data	Data type in JavaScript
98445	_____
"My School"	_____
true	_____
"False"	_____

12. Rewrite the given JavaScript code segment with suitable code elements to display even numbers upto 10 on a web page.

```

<SCRIPT .....="JavaScript">
    var N;
    N=2;
    while(.....)
    {
        document.write(N);
        N=.....+.....;
    }
    <.....>
  
```

13. Write short note on various types of web hosting.
14. What is responsive web design ?

15. Write a brief description about the users of database.
16. Which are the aggregate functions in SQL ?
17. Compare GET and POST methods in PHP.
18. What is the difference between *echo* and *print* statements in PHP ?

Answer any 9 questions from 19 to 29. Each carries 3 scores.

(9 × 3 = 27)

19. (a) What is structure in C++ ? (1)
- (b) Define a structure 'FeeCard' to store the details Admission number, Name and Amount. (2)
20. Consider the array *Num[5]* of *int* type, *Ptr* an integer pointer then predict the output of the following C++ statements :

	Num
Ptr=Num;	1000
(a) cout<<(Num+1);	37
(b) cout<<*(Num+1);	42
(c) for(int i=0; i<5; i++)	57
cout<<*(Ptr + i)<<"\t";	62
	67

21. (a) Define the OOP concept *Inheritance*. (1)
- (b) Write a brief note on different types of inheritance. (2)
22. Write the algorithm to perform PUSH operation in a stack.

23. (a) Write short note on linked list. (1)
 (b) List the operations that can be performed on linked list. (2)
24. Compare static and dynamic web pages.
25. List any three attributes of <BODY> Tag with their use.
26. List the advantages of DBMS.
27. Write the output of the following JavaScript statements based on the given code segment :

```
var x, A,B,C;  
x="All the Best";  
A=x.toUpperCase( );  
B= x.length;
```

- (a) alert(A);
 (b) alert(B);
 (c) alert(isNaN(x));

28. Answer the following questions based on the given table STUDENT as per instructions :

Reg_No	Name	Batch	Result	Marks
1101	Sachin	Science	Pass	480
1107	Rithu	Science	Fail	200
1234	Joseph	Commerce	Pass	350

- (a) Write the output of the operation $\sigma \text{ Result} = \text{"Pass"} \text{ (STUDENT)}$
 (b) Write the output of the operation $\sigma \text{ Result} = \text{"Pass"} \wedge \text{Batch} = \text{"Science"} \text{ (STUDENT)}$
 (c) Write relational operation to get Reg_No, Result of all students from STUDENT
29. Explain the cloud service models.

Answer any 2 questions from 30 to 32. Each carries 5 scores.

(2 × 5 = 10)

30. (a) List the tags used to create table in HTML with their use. (2)
(b) Write HTML code to display the following table in a web page : (3)

DETAILS OF STUDENTS		
Chest No	Name	No. of attempts
123	Rithu	3
125	Ananya	2

31. Consider the given SQL query,

```
CREATE TABLE Book
( Book_ID INT PRIMARY KEY,
  Book_Name VARCHAR(25),
  Publisher VARCHAR(25),
  Price INT,
  NOT NULL(Book_Name, Publisher));
```

Answer the following :

- (a) Write the table constraint used in the query. (1)
(b) Write SQL query to display whole table. (1)
(c) Write SQL query to display the list of books with price below 200. (1)
(d) Write SQL query to display Book name in the ascending order of price. (1)
(e) Rewrite the above query with proper changes so that the Book_ID to be unique and price decimal type. (1)
32. (a) Define e-Learning. (1)
(b) List any 4 e-Learning tools. (2)
(c) Explain any 4 cyber-crime against individuals. (2)