

(English Version)

- Instructions :**
1. The question paper has five parts namely A, B, C, D and E. Answer all the five parts.
 2. For Part-A questions only the first written answers will be considered for evaluation.

PART – AAnswer **all** the questions. **Each** question carries **1** mark.**(20 × 1 = 20)**

I. Select the correct answer from the choices given below.

- 1) Where is L1 cache located?
 - a) Inside the CPU
 - b) Outside the CPU
 - c) Inside the ALU
 - d) In the ROM
- 2) Boolean Algebra is also called _____
 - a) Linear algebra
 - b) Arithmetic algebra
 - c) Switching algebra
 - d) Binary algebra
- 3) The output of 2 input AND Gate is high (1) when
 - a) one of the input is high
 - b) both the inputs are high
 - c) both the inputs are low
 - d) none of the above



- 4) Assertion (A) : A stack is a LIFO data structure.
Reasoning (R) : An ordered collection of items where insertion and deletion takes place at different ends.
- a) A is true, R is false
 - b) A is true, and R is correct explanation of A
 - c) A is false, R is false
 - d) None of the above
- 5) _____ operator is used to define member function outside the class.
- a) .
 - b) ::
 - c) ;
 - d) *
- 6) A. The inline function is a compact function.
B. Inline function runs faster than normal function.
C. Using inline function efficient code can be generated.
- a) A is correct but B is wrong
 - b) A is wrong but C is correct
 - c) B is wrong and C is wrong
 - d) All A, B, C are correct
- 7) Constructor should be declared in _____
- a) Private
 - b) Public
 - c) Protected
 - d) Local
- 8) If a number of classes are derived from a single base class is called _____
- a) Single inheritance
 - b) Multiple inheritance
 - c) Multilevel inheritance
 - d) Hierarchical inheritance



- 9) In the given program segment identify the error.

```
void main ( )  
{  
    int *ptr, x=18;  
    ptr=*x;  
    cout<<"\n output is"<<ptr;  
}
```

- | | |
|------------------------|----------------------|
| a) Unknown identifier | b) Runtime error |
| c) Invalid indirection | d) Statement missing |

- 10) An example for DBMS software is

- | | |
|-----------|------------|
| a) ORACLE | b) C++ |
| c) HTML | d) MS-Word |

- 11) Name the SQL command used to change the existing data of the table

- | | |
|-----------|-----------|
| a) ALTER | b) UPDATE |
| c) SELECT | d) DELETE |

- 12) MAN stands for _____

- a) Metropolitan Area Network
- b) Metrostation Area Network
- c) Modern Area Network
- d) Middle Allocation Network

- 13) A communication mode that transmits the data in both directions, but only one direction at a time.

- | | |
|----------------|----------------|
| a) Simplex | b) Semi duplex |
| c) Half duplex | d) Full duplex |



- 14) Software whose source code is available to customers and it can be modified and redistributed without any limitation is _____
- a) Open Source Software
 - b) Community Software
 - c) Free Software
 - d) Free Ware
- 15) Which of the following is the process of creating and embedding scripts in a web page?
- a) web hosting
 - b) web scripting
 - c) domain registration
 - d) server side script

II. Fill in the blanks choosing the appropriate word/words from those given in the bracket.

(Domain, Information, Tree, Data mining, Record, Primary key)

- 16) _____ is processed data with definite meaning.
- 17) A single entry in a table is called as _____.
- 18) Hierarchical model organises the data in a _____ like structure.
- 19) _____ uniquely identifies each record in a table.
- 20) _____ is concerned with analysis and picking out relevant information.

**PART – B**

III. Answer **any four** questions. **Each** question carries 2 marks. (4 × 2 = 8)

- 21) State Indempotence law.
- 22) What is Tautology and Fallacy?
- 23) Define any two characteristics of object oriented programming.
- 24) What is constructor? Mention its types.
- 25) Mention any two functions that belong to ofstream class.
- 26) Define candidate key and alternate (secondary) key.
- 27) Write the syntax and example for DROP command in SQL.
- 28) Briefly explain with neat diagram the star topology.

PART – C

IV. Answer **any four** questions. **Each** question carries 3 marks. (4 × 3 = 12)

- 29) Give any three features of USB port.
- 30) Write the logic symbol and truth table of OR gate.
- 31) What are the applications of stack data structure?
- 32) Define array of pointers. Give an example.



- 33) Explain any three file opening modes.
- 34) Briefly explain any three components of E-R diagram.
- 35) What is E-commerce? Mention any two technologies and services used in E-Commerce.
- 36) Explain the structure of HTML.

PART – D

V. Answer **any four** questions. Each question carries 5 marks. (4 × 5 = 20)

- 37) Explain any five operations performed on linear data structure.
- 38) Write an algorithm to delete a data element from the queue.
- 39) Explain any five applications of OOP's.
- 40) What is a friend function? Mention its various characteristics.
- 41) Define default constructor. Write the features, syntax and example of default constructor.
- 42) What is inheritance? Explain with neat diagram.
 - a) multiple inheritance
 - b) multilevel inheritance
- 43) Differentiate between manual and electronic data processing.
- 44) What is computer virus? Write the symptoms (characteristics) of computer virus.



PART – E

VI. Answer **any two** questions. **Each** question carries **5** marks. (2 × 5 = 10)

- 45) Given the Boolean function $F(A,B,C,D) = \sum(0, 1, 2, 3, 4, 7, 8, 12, 15)$ reduce it by using Karnaugh map (K-map).
- 46) Explain member function defined outside the class definition with a suitable example.
- 47) With reference to the table given below, write the SQL commands to perform the following operations.

Table Name : employee

EMPID	NAME	DOB	Salary	Tax	Net Salary
1001	ABC	28-01-72	50,000	10,000	40,000
1002	EFG	29-05-70	60,000	15,000	45,000
1003	XYZ	18-04-73	45,000	9,000	36,000
1004	PQR	14-03-74	44,000	7,000	37,000

- Display all the records from “employee” table.
- Find the maximum of Net salary.
- Find the minimum of Net salary.
- Delete all the records from the table “employee”.
- Remove the table “employee”.