

COMPUTER SCIENCE

(330)

Time : 3 Hours]

[Maximum Marks : 60

Note : Answer *all* questions. Marks allotted to each question are given in the right-hand margin.

1. Answer the following :

1×5=5

- (a) Compiled languages are better than interpreted languages. Why?
- (b) The activities in a data processing cycle can be grouped in four functional categories. Name them.
- (c) What is the function of the following DOS commands?
 - (i) a:
 - (ii) rd c:\my files
- (d) What is the use of Taskbar on your PC?
- (e) What do you understand by user-level access control? Does it require a password?

2. Answer the following :

1×4=4

- (a) Write any *two* features of e-mail.
- (b) What is Electronic Data Interchange(EDI)?
- (c) Name the largest Wide Area Network.
- (d) These days, people are preferring broadband for internet. What is its advantage?

3. Answer the following questions briefly :

2×3=6

- (a) Write any *two* functions of a computer.
- (b) What is the difference between record and file?
- (c) Differentiate between LAN and WAN.

4. Answer the following :

1×4=4

(a) In the C++, what do the following punctuators indicate?

(i) ()

(ii) #

(b) Evaluate the following expression :

```
int a = 6, b = 3, c;  
a! = b
```

(c) What happens to the objects, when a programme is executed?

(d) Consider the following C++ code :

```
int a = 5, b = 3, c;  
c = a-(b--)
```

What will be the value of c after the execution of the code?

5. State whether the statements given below are True or False :

1×3=3

(a) The operator % is used to find the remainder after integer division.

(b) C++ supports hierarchical classification of classes.

(c) The operators + and / are equivalent in order of precedence.

6. Answer the following :

2×4=8

(a) Which of the following is correct representation of string literals?

(i) "John/Jashmin"

(ii) 'John+Jashmin'

(b) Differentiate between data abstraction and data encapsulation.

(c) Write a 'for' loop that displays numbers 16, 18, 20, ..., 30.

(d) Using 'if-else' statement, write a loop that displays the following :

'grade is outstanding', if grade is 'A'.

'grade is other than outstanding', if grade is any other letter.

(Read the input from console.)

7. Write the standard library functions for the following :

1×5=

- (a) Exponential functions of y
- (b) Logarithm (natural) of z
- (c) To check whether c is an uppercase letter or a lowercase letter
- (d) To compare two strings A and B and find out whether A is greater than B
- (e) To check whether ' x ' is a digit or not

8. Name the header file that is required for the following :

2

- (a) `fabs(x)`
- (b) `strcit(A, B)`

9. Write a program in C++ to read 20 numbers from console and sort them in descending order. (Use selection sort)

5

10. Answer the following :

1×4=4

- (a) Consider the following enumerating data type statement :

```
enum days {mon, tue, wed, thu, fri, sat, sun};
```


What integer value 'wed' was given?
- (b) What is nesting of a structure?
- (c) When do you use a destructor member function?
- (d) While declaring the virtual base class, is it correct to write *virtual public* or *public virtual*?

11. State whether the statements given below are True or False :

1×3=3

- (a) The nested structure is initialized at the time of declaration of structure variable.
- (b) By default, the members of a class are public.
- (c) Inheritance means child receiving certain traits from parents.

12. Fill in the blanks :

1×4=4

- (a) — statement provides an alternative name for standard data type.
- (b) The name of the destructor function is same as that of class but preceded with a symbol — .
- (c) Constructor initializes the data members of a — .
- (d) — data of base class cannot be inherited.

13. Answer the following :

1×4=4

- (a) What is the difference between A[2] and *A(2)?
- (b) If we write pa=&a and b=*pa, verify whether a and b represent same value or different values.
- (c) Consider the following statements :

```
ifstream infile("EMP.DAT");
infile>>string;
infile>>number;
```

What do the last two statements do?

- (d) Consider the following statement :

```
outfile.open("EMP..DAT", ios: :nocreate);
```

What does the statement do?

14. Write a program in C++ to find the factorial at a given number. Read the number from console.

3
