

This question paper consists of 10 questions and 4 printed pages.

Roll No.

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Code No. 36/SS/A

Set

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16817

COMPUTER SCIENCE
(330)

Day and Date of Examination

Signature of Invigilators 1.

2.

General Instructions :

1. Candidate must write his/her Roll Number on the first page of the question paper.
2. Please check the question paper to verify that the total pages and total number of questions contained in the paper are the same as those printed on the top of the first page. Also check to see that the questions are in sequential order.
3. Making any identification mark in the answer-book or writing roll number anywhere other than the specified places will lead to disqualification of the candidate.
4. Write your Question Paper Code No. 36/SS/A, Set

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 on the answer-book.

Time : 3 Hours]

[Maximum Marks : 60

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

1. Define the following terms briefly : 1×6=6

- (a) Addresses
- (b) Bar Code Reader
- (c) Database
- (d) Application Software
- (e) Full Duplex
- (f) Protocol

2. Answer the following questions : 2×3=6

- (a) What are the different types of connectivity available to get connected to Internet? Explain any *one*.
- (b) What do you mean by type conversion in C++? Name the two types of conversion.
- (c) What do you mean by Actual and Formal parameters?

3. Differentiate the following : 2×3=6

- (a) Client-Server Architecture and Peer-to-peer Architecture
- (b) Ring Topology and Star Topology
- (c) TCP/IP and FTP

4. Attempt the following : 1×6=6

- (a) What is a scanner?
- (b) What is physical record?
- (c) What is system software?
- (d) In C++ — is the function to open the file.
- (e) — class can be derived from a base class.
- (f) What is data abstraction?

5. Write the following programs using C++ :

4×2=8

(a) A program to find out the sum of the series

$$1 + X + X^3 + X^5 + \dots + X^{n+1}$$

(b) A program to read an array of 10 integers. Sort the numbers using selection sort.

6. Identify the Header File for the following functions :

1×4=4

(a) isdigit()

(b) setprecision()

(c) cos()

(d) strlen()

7. Answer the following :

2×5=10

(a) What is the use of typedef statement?

(b) What is nesting of structure?

(c) Find the output of the following program :

```
#include<iostream.h>
#include<conio.h>
void main()
{
    clrscr();
    int x,y,z;
    x=y=z=8;
    y=x++;
    z=++x;
    cout<<x<<y<<z;
    getch();
}
```

(d) Find the error(s) in the following program :

```
#include<iostream.h>
#include<conio>
int main()
{
    int x,y,z;
    cout<<"Enter two numbers";
    cin<<x<<y;
    x+y=z;
    cout<<z;
}
```

(e) What is the meaning of ios::ate?

8. Answer the following :

3×2=6

(a) Define a class Student with the following specification :

Private members

Rollno	Integers
Studname	Char
Hindi, English, Maths, total	Float
Totalmark()	a function to calculate total as Hindi+English+Maths

Public members

Takedata()	a function to read values for Rollno, Studname, Hindi, English, Maths, invoke Totalmark() to calculate total
Showdata()	a function to display data members of the class

(b) The record consists of two fields : empno and ename. Write a program to display records from the file emp.dat.

9. What are the sizes of the following data types?

1×4=4

- (a) long int
- (b) signed char
- (c) unsigned int
- (d) double

10. (a) How is pointer variable different from ordinary variable?

2

(b) What is the difference between x[4] and *(x+2)?

1

(c) What are the three modes of inheritance?

1
