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

Roll No. | | | | | | | | | | | |

Code No. 34/SS/A

Set A

8162 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 booklet 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 Booklet Code No. 34/SS/A, Set [A] on the answer-book.

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 questions briefly : 1×6=6

(a) What are the *two* main characteristics of a computer system?

(b) Name *two* Input and *two* Output devices.

(c) What is 'My Computer'?

(d) Explain the term EDI.

(e) What is Automatic Memory Management?

(f) What is FTP? List at least *two* objectives of FTP.

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

(a) What are the *five* basic activities performed in data processing?

(b) List the *two* major functions of operating system.

(c) Name the characteristics of Java programming language. Explain any *one* of them.

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

(a) What is topology? Name some common network topologies. Explain any *one* of them.

(b) Write a program using pointers to print all the values of an integer array X having four values as 10, 20, 30, 40.

4. Answer the following questions : 1×6=6

(a) What is the purpose of **sizeof** operator in C++?

(b) What are Literals? Name the various types of literals in C++.

(c) What is the function of logical operators in C++?

(d) Assume the variable **total** starts with the value 10. What will be the output of the following code?

```
cout < < total--;
cout < < ++ total;
```

(e) What is Modularity?

(f) What is data encapsulation?

5. Answer the following questions : 2×5=10

(a) What will be the value of variable X after the execution of the following program?

```
void main( )
{
    int X;
    int digit=0;
    X=1;
    while (digit<=10)
{
    ++X;
    ++digit;
}
    cout<<X;
}
```

(b) Explain the operation of 'if else' statement in C++ with the help of a flow diagram.

(c) What is a Token? List its various types.

(d) What is Polymorphism? How is it implemented in C++?

(e) Find the errors if any in the following program code :

```
include<iostream.h>
void main( )
{
int x;
cin>>x;
for(int y=0, y<10, y++);
cout>>x+y;
}
```

6. (a) Identify the header file(s) for the following built-in functions : 1×4=4

(i) putchar( )

(ii) sqrt( )

(iii) strlen( )

(iv) toupper( )

(b) Distinguish between Local and Global variables. 2

(c) Write a structure specification for the 'Student' having variables : 2

Rollno, Name, Class and Date of Birth.

7. Wirte a program that will accept a 1-character Grade code and depending on this grade code, the pay of the employee is displayed as per the following table : 4

Grade Code	Pay
A	50,000
B	30,000
C	10,000

8. Answer the following questions : 1×2=2

(a) List the features of enumerated data types.

What is the meaning of the statement **typedef char string**? (b)

9. Answer the following questions : 1×6=6

(a) What is a constructor function? What is its significance?

(b) What is a class?

(c) What is an object? How can it be created?

(d) What is an Abstract class?

(e) What are the different forms of inheritance?

(f) What is a derived class?

10. Answer the following questions :

(a) Name *two* ways in which a file can be opened in C++. 1

(b) What is the difference between X[2] and *(X+2)? 1

(c) Name the input and output pointers used in file operations. 1

(d) Explain the file mode parameters : 1×2=2

(i) **ios : : app**

(ii) **ios : : in**

(e) Define a 2-dimensional array X having 2 rows and 6 columns of the int data type. 1

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