FTS

E-6

(Set-II)

Roll No. 1202011015

OBJECT ORIENTED PROGRAMMING

Code No. : 2K5–DS–1

Time : 3 Hrs. **M.M. : 100**

Note :—

1. *Part 'A' may be attempted in first 6 pages of Answer Sheet.*
   भाग 'क' के सभी उत्तर, उत्तर-पुस्तिका के प्रथम छः पृष्ठों में ही करने हैं।
2. *Part 'B' in rest of the Sheets of Answer Sheet.*
   भाग 'ख' के उत्तर, उत्तर-पुस्तिका के अगले शेष पृष्ठों में लिखिये।
3. *Answers may be given in English or Hindi.*
   प्रश्नों के उत्तर अंग्रेजी अथवा हिन्दी में दीजिये।

PART - A

1. Answer any TEN questions: **(10 × 2 = 20)**

(i) Object oriented programming follows which approach–top down approach or bottom up approach ?

(ii) Name four data types used for numbers and decimals.

(iii) What library function should be included to use 'power()' function ?

(iv) What concept was introduced in C++ that was absent in C ?

(v) What is the use of default constructor ?

(vi) Give one unary and one binary operator.

(vii) What is hierarchical inheritance ?

(viii) Formatted console I/O operations are present in which header file ?

(ix) Write the syntax for function fopen().

(x) What are pure virtual functions ?

(xi) What is the significance of protected members in a class ?

(xii) Give two advantages of OOP concepts.

(xiii) What is implicit type conversion ?

(xiv) Explain the use of 'width' function ? Give it's syntax too.

2. Attempt any 5 questions : **(5 × 4 = 20)**

(i) Differentiate between procedural oriented programming and object-oriented programming.

(ii) What is a parameterized constructor ? Give an example.

(iii) Explain multiple inheritance with an example.

(iv) Write a program to implement division of two numbers and handle 'divide by 0' exception.

(v) Differentiate between late and early binding.

(vi) How is 'switch' better than 'if-else' control structure ? Explain with examples.

(vii) What is a destructor ? What happens if destructors are not used in a program ?

(viii) What is a function ? Explain with example.

PART - B

Answer any THREE questions. **(3 × 20 = 60)**

3. (a) What are objects ? Explain passing objects as function arguments with a program.

   (b) Describe the essential features/concepts of OOP.

4. (a) What is a friend function ? Show the interaction of a friend function with a class.

   (b) With the help of a program, explain the use of abstract classes.

5. (a) Write a program to write your name in a file. Show all the operations performed in the program (open, write, close).

   (b) How to use Overload '+' operator to concatenate two strings in a program.

6. (a) Perform multiplication of two complex numbers using classes.

   (b) Explain pure virtual functions with example.

7. (a) Write a program to overload function 'sum' to add integers as well as decimal numbers. Ask the user to choose between integer addition or decimal addition.

   (b) Write a program to addition of elements of an 'n' sized array using 'for' control structure, and display the sum.