

F.Y. B.Sc.(IT) : Sem. II
Object Oriented Programming
Prelim Question Paper



Time : 2½ Hrs.]

[Marks : 75

Please check whether you have got the right question paper.

- N.B.:
- (1) All questions are compulsory.
 - (2) Make suitable assumptions wherever necessary and state the assumptions made.
 - (3) Answers to the same questions must be written together.
 - (4) Numbers to the right indicate marks.
 - (5) Draw neat labeled diagrams wherever necessary.
 - (6) Use of Non-programmable calculator is allowed.

1. Attempt the following (any **THREE**) [15]

- (a) Differentiate between Object Oriented Programming and Procedure Oriented Programming.
- (b) Explain benefits and applications of OOP.
- (c) Explain Polymorphism. Give example.
- (d) Explain Class and Object.
- (e) Explain Object Oriented Paradigm.
- (f) What is inheritance? State its types.

2. Attempt the following (any **THREE**) [15]

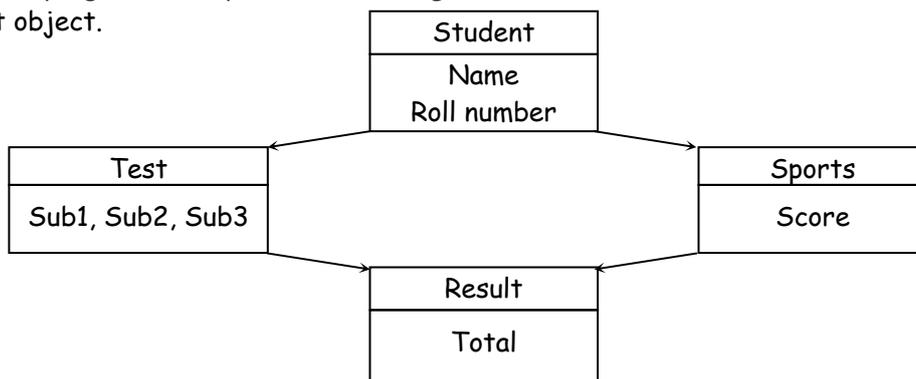
- (a) What is friend function? Give example.
- (b) Explain Constructors.
- (c) Explain Array of pointer to object by giving programming example.
- (d) Explain Destructors.
- (e) Write an Object Oriented Program to read and display student information (roll number, name etc.)
- (f) Explain the concept passing object as an argument.

3. Attempt the following (any **THREE**) : [15]

- (a) Explain static functions with example.
- (b) What is function overloading? Write a program to find area of circle, triangle and rectangle using the concept of function overloading.
- (c) What is operator overloading? State the rules for overloading.
- (d) Explain pure virtual function.
- (e) Explain data conversion between objects and basic types.
- (f) Explain this pointer.

4. Attempt the following (any **THREE**) [15]

- (a) Explain access specifiers/Visibility modes.
- (b) Explain exception handling mechanism.
- (c) Explain containership.
- (d) Write a program to implement following inheritance tree to create, read and display result object.



- (e) Explain what is an error and its types. Also explain an Exception and its types.
- (f) Explain constructors in derived classes.

5. Attempt the following (any **THREE**)

[15]

- (a) Explain with example class templates with multiple parameters.
- (b) Explain the hierarchy of file stream classes.
- (c) Explain file pointers and their manipulations.
- (d) Write a program with generic function or template to swap multiple types of data.
- (e) Write a program to read data from user and write to the file.
- (f) Explain with example overloading of template functions.

Paper Discussion Schedule for all Subjects: F.Y.B.Sc.IT (Sem. II)

Date	Day	Timing	Centre
9 April. 2018	Monday	9 a.m. to 11 a.m.	Dadar
9 April. 2018	Monday	12 p.m. to 2 p.m.	Andheri
9 April.2018	Monday	3 p.m. to 5 p.m.	Borivali
9 April.2018	Monday	5 p.m. to 7 p.m.	Thane
7 April.2018	Saturday	8 a.m. to 10 a.m.	Kalyan
7 April.2018	Saturday	6 p.m. to 8 p.m.	Nerul

