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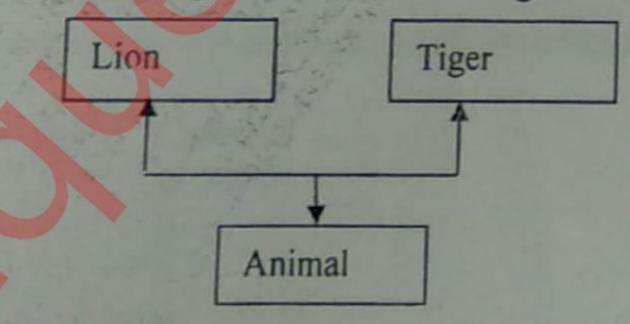
Q. P. Code: 33404

(21/2 Hours)

[Total Marks: 75]

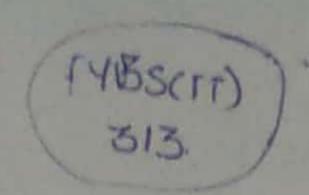
N. B.: (1) All questions are compulsory.

- (2) Make suitable assumptions wherever necessary and state the assumptions made.
- (3) Answers to the same question must be written together.
- (4) Numbers to the right indicate marks.
- (5) Draw neat labeled diagrams wherever necessary.
- (6) Use of Non-programmable calculators is allowed.
- 1. Attempt any three of the following:
- What is object oriented programming? State its applications. a.
- Illustrate the relationship between object and class. b.
- Explain the concept of abstraction with suitable example. C.
- Explain in brief about reusability with suitable example. d.
- What is polymorphism? Give suitable example for the same. e.
- Write a note on dynamic binding.
- 2. Attempt any three of the following:
- Explain the structure of C++ class. a.
- b. Write a C++ program to create a class Bank with { acno, custname, bal} as its attributes. And implement the methods withdraw(), deposit() and showBalance().
- Explain in brief the concept of friend function and class with suitable example. C.
- d. What is constructor? State its characteristics.
- Write a C++ program to implement the concept of constructor and destructor.
- Explain the concept of pointer to object with suitable example.
- 3. Attempt any three of the following:
- 15 Explain the concept of function overloading with suitable example. a.
- Write a C++ program to overload binary (++) operator. b.
- List the operators that cannot be overloaded. Explain the rules for overloading the C. operators.
- What is static function? Explain how it is implemented. d.
- What is pure virtual function? Explain how it is implemented. e.
- Explain in brief the concept of abstract class.
- Attempt any three of the following:
- Explain the concept of multilevel inheritances with suitable example. a.
- Write a C++ program to implement the following hierarchy of inheritance. b.



- Explain the concept of method overriding with suitable example.
- Write a note on containership.
- Explain the mechanism of handling the exception with suitable example. e.
- Explain in brief about hybrid inheritance with suitable example.

[TURN OVER]



5. Attempt any three of the following:

- a. Explain the concept of function template with suitable example.
- b. Write a C++ program to implement the concept of class template.

c. State and explain different file modes.

- d. Write a C++ program to read the input from the user and write into the file. [Select a suitable file mode]
- e. Write a C++ program to display the contents from the tile in a console mode. [Select a suitable file mode]
- f. Write a C++ program to copy the contents from one file to other file. [Select a suitable file mode]