## Question Bank of OOPS and DS (SYBCA-Sem 3) SHORT QUESTIONS

- 1. Differentiate between structure and class.
- 2. How scope resolution operator used in different ways in object oriented programming?
- 3. Explain the significance of 'this' pointer.
- 4. How the constructor is called in multilevel inheritance? Explain it with example.
- 5. List out the operators where friend cannot be used.
- 6. What is stack? Explain significance of TOP pointer in stack.
- 7. Explain difference between simple queue and circular queue.
- 8. What is recursion? Give example of it.
- 9. Convert Infix to Postfix: A\* (B-C \* D) +E/F.
- 10. List out the operators that cannot be overloaded.
- 11. What is the difference between private and protected visibility mode?
- 12. What is static binding?
- 13. What is the advantage of new operator over malloc()?
- 14. What is data structure? Differentiate between linear and non-linear data structure.
- 15. What is stack? List out application of stack.
- 16. Write a condition for circular queue overflow.
- 17. What is top pointer in stack? What is its significance?
- 18. Differentiate between overloading and overriding.

## LONG QUESTIONS

- 1. Explain copy constructor with proper example.
- 2. Explain any three concepts of object oriented programming in detail.
- 3. Explain the concept of default argument with an example.
- 4. Explain in detail the concept of friend function.
- 5. What is operator overloading? Write different rules to overload operators. Also, explain operator overloading with an example.
- 6. Explain Hybrid Inheritance and how we can remove the ambiguity occurred while implementing hybrid inheritance.
- 7. Explain Circular Queue with proper example. Discuss advantages of Circular Queue over simple queue.
- 8. Write an algorithm to insert and delete element in a stack.
- 9. Explain input and output restricted queue with proper example.
- 10. Write an algorithm to convert infix expression into postfix form.
- 11. What are constructor and destructor? Explain copy and parameterized constructor with an example.
- 12. Write a note on different access modifiers in C++.
- 13. What is Object Oriented Programming? Write the difference between OOP and POP.
- 14. Explain Run time polymorphism with an example.
- 15. Differentiate between overloading and overriding.
- 16. Explain Tower of Hanoi as application of stack.
- 17. Explain Inheritance and its types in detail.
- 18. What is Queue? Explain different types of queue in detailed.
- 19. Explain concepts of Class and Objects.
- 20. Explain concepts and use of Enum.
- 21. Explain Data abstraction with example.
- 22. Explain Virtual and Pure Virtual function with example.