



EXAMINATION PAPER

FACULTY : COMPUTER SCIENCE AND MULTIMEDIA
COURSE : BACHELOR OF INFORMATION TECHNOLOGY (HONS)
YEAR/ SEMESTER : FIRST YEAR / SEMESTER TWO
MODULE TITLE : OOP C++
CODE : BIT 121
DATE : 24 SEPTEMBER - 2019, TUESDAY
TIME ALLOWED : 3 HOURS
START : 1:00 PM FINISH : 4:00 PM

Instruction to candidates

1. This question paper has THREE (3) Sections.
2. Answer **ALL** questions in Section A, MCQ.
3. Answer **5** questions in Section B, MSAQ.
4. Answer **2** questions in Section C, MEQ.
5. No scripts or answer sheets are to be taken out of the Examination Hall.
6. For Section A, answer in the OMR form provided.

Do not open this question paper until instructed

(Candidates are required to give their answers in their own words as far as practicable)

SECTION A
Multiple Choice Questions
Attempt All Questions

[30×1=30]

- 1. Which of the following term is used for a function defined inside a class?**
 - A. Member Variable
 - B. Member function
 - C. Class function
 - D. Classic function

- 2. Why reference is not same as a pointer?**
 - A. A reference can never be null
 - B. A reference once established cannot be changed
 - C. Reference doesn't need an explicit dereferencing mechanism
 - D. All of the above

- 3. *cout* is a/an _____ .**
 - A. operator
 - B. function
 - C. object
 - D. macro

- 4. Which of the following approach is adapted by C++?**
 - A. Top-down
 - B. Bottom-up
 - C. Right-left
 - D. Left-right

- 5. Which of the following operator is overloaded for object *cout*?**
 - A. >>
 - B. <<
 - C. +
 - D. =

- 6. Which of the following header file includes definition of *cin* and *cout*?**
 - A. *istream.h*
 - B. *iomanip.h*
 - C. *ostream.h*
 - D. *iostream.h*

- 7. Which of the following statement will be correct if the function has three arguments passed to it?**
 - A. The arguments from the right side will be the default argument
 - B. The first argument will be the default argument
 - C. The middle argument will be the default argument
 - D. All the argument will be the default argument

8. Which of the following statement is correct?

- A. Overloaded functions can accept same number of arguments
- B. Overloaded functions always return value of same data type
- C. Overloaded functions can accept only same number and same type of arguments
- D. Overloaded functions can accept only different number and different type of arguments

9. How many types of macros are there in c++?

- A. 1
- B. 2
- C. 3
- D. 4

10. What is this operator called?

- A. Conditional
- B. Relational
- C. Casting operator
- D. None of the above

11. Which operator is used to signify the namespace?

- A. Conditional operator
- B. Ternary operator
- C. Scope operator
- D. None of the above

12. Which keyword is used to access the variable in namespace?

- A. Using
- B. Dynamic
- C. Const
- D. Static

13. What will happen in this code?

```
int a = 100, b = 200;  
int *p = &a, *q = &b;  
p = q;
```

- A. b is assigned to a
- B. p now points to b
- C. a is assigned to b
- D. q now points to a

14. Which of the following is a correct comment?

- A. `*/ Comments */`
- B. `** Comment **`
- C. `/* Comment */`
- D. `{ Comment }`

15. Because the lifetime of a local variable is limited and determined automatically, these variables are also called:

- A. Automator
- B. Automatic
- C. Dynamic
- D. Static

16. Which of the following concepts means determining at runtime what method to invoke?

- A. Dynamic Binding
- B. Data Hiding
- C. Data Typing
- D. Dynamic Loading

17. Which of the following cannot be friend?

- A. Function
- B. Class
- C. Object
- D. Operator Function

18. Which of the following concepts of OOPS means exposing only necessary information to clients?

- A. Encapsulation
- B. Abstraction
- C. Data Hiding
- D. Data Binding

19. Why reference is not the same as a pointer?

- A. A reference can never be null
- B. A reference once established cannot be changed
- C. Reference doesn't need an explicit dereferencing mechanism
- D. All of the above

20. Which of the following is an abstract data type?

- A. Int
- B. Double
- C. String
- D. Class

- 21. Which of the following correctly describes overloading of functions?**
- A. Virtual polymorphism
 - B. Transient polymorphism
 - C. Ad-hoc polymorphism
 - D. Pseudo polymorphism
- 22. Which of the following is correct about function overloading?**
- A. The types of arguments are different
 - B. The order of argument is different
 - C. The number of argument is same
 - D. Both A and B
- 23. Which of the following concepts means wrapping up of data and functions together?**
- A. Abstraction
 - B. Encapsulation
 - C. Inheritance
 - D. Polymorphism
- 24. C++ is superset of which language?**
- A. BASIC
 - B. C
 - C. VB
 - D. PASCAL
- 25. Which of the following is the correct class of the object *cin*?**
- A. *iostream*
 - B. *istream*
 - C. *ostream*
 - D. *ifstream*
- 26. Which of the following functions are performed by a constructor?**
- A. Construct a new class
 - B. Construct a new object
 - C. Construct a new function
 - D. Initialize objects
- 27. Which of the following statement is correct?**
- A. Class is an instance of object
 - B. Object is an instance of a class
 - C. Class is an instance of data type
 - D. Object is an instance of data type

28. Which of the following ways are legal to access a class data member using this pointer?

- A. `this->x`
- B. `this.x`
- C. `*this.x`
- D. `*this-x`

29. A function with the same name as the class, but preceded with a tilde character (~) is called _____ of that class.

- A. constructor
- B. destructor
- C. function
- D. object

30. Which of the following parameter passing mechanism(s) is/are supported by C++, but not by C?

- A. Pass by value
- B. Pass by reference
- C. Pass by value-result
- D. All of the above

SECTION B

Short Answers Questions

Answer any five (5) questions out of eight (8) questions [5×6=30]

1. Explain switch statement with an example.
2. Define an automatic variable. Give an example.
3. Elaborate function overloading with proper example.
4. Explain the library function strcat() with an example.
5. Write a program to input any ten numbers in an array and find the greatest number.
6. Write a program to create a file "employee.txt" which allows the following operations to be performed:
 - Writing a line in the file
 - Editing the file
 - Displaying the content of file
7. Why is it necessary to handle the exceptions? Explain exception handling mechanism with suitable example. [3+3]
8. Write the meaning of random access to file. Describe the different functions that support random access to files. [2+4]

SECTION C

Long Answer Questions

Attempt any two (2) questions out of three (3) questions. [2×20=40]

1. How is dynamically memory allocated in C++? Explain in detail with suitable example. [4 + 16]
2. Suppose class Time with following Data member.
Hour
Minute
Second and Member functions

getTime() – to read time
showTime() – to display time in hh:mm:ss format
addTime() – to add two times
use necessary constructor
3. Write short notes on: [5×4]
 - A. Pointers
 - B. Returning by Reference
 - C. Inline Functions
 - D. Extraction (>>) and Insertion (<<) Operator
 - E. “this” pointer

******BEST OF LUCK******