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प्रश्नपुस्तिका क्रमांक
Question Booklet No.

O.M.R. Serial No. | | | | | | | | |

प्रश्नपुस्तिका सीरीज
Question Booklet Series
D

B.C.A.(Third Semester) Examination, February/March-2022

BCA-301(N)

Object Oriented Programming Using C++

Time : 1:30 Hours **Maximum Marks-100**

जब तक कहा न जाय, इस प्रश्नपुस्तिका को न खोलें

निर्देश : –

1. परीक्षार्थी अपने अनुक्रमांक, विषय एवं प्रश्नपुस्तिका की सीरीज का विवरण यथास्थान सही– सही भरें, अन्यथा मूल्यांकन में किसी भी प्रकार की विसंगति की दशा में उसकी जिम्मेदारी स्वयं परीक्षार्थी की होगी।
2. **इस प्रश्नपुस्तिका में 100 प्रश्न हैं, जिनमे से केवल 75 प्रश्नों के उत्तर परीक्षार्थियों द्वारा दिये जाने है। प्रत्येक प्रश्न के चार वैकल्पिक उत्तर प्रश्न के नीचे दिये गये हैं। इन चारों में से केवल एक ही उत्तर सही है। जिस उत्तर को आप सही या सबसे उचित समझते हैं, अपने उत्तर पत्रक (O.M.R. ANSWER SHEET)में उसके अक्षर वाले वृत्त को काले या नीले बाल प्वांइट पेन से पूरा भर दें। यदि किसी परीक्षार्थी द्वारा निर्धारित प्रश्नों से अधिक प्रश्नों के उत्तर दिये जाते हैं तो उसके द्वारा हल किये गये प्रथमतः यथा निर्दिष्ट प्रश्नोत्तरों का ही मूल्यांकन किया जायेगा।**
3. प्रत्येक प्रश्न के अंक समान हैं। आप के जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
4. सभी उत्तर केवल ओ०एम०आर० उत्तर पत्रक **(O.M.R. ANSWER SHEET)** पर ही दिये जाने हैं। उत्तर पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
5. ओ०एम०आर० उत्तर पत्रक **(O.M.R. ANSWER SHEET)** पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाय।
6. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी प्रश्नपुस्तिका बुकलेट एवं ओ०एम०आर० शीट पृथक–पृथक उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें।
7. निगेटिव मार्किंग नहीं है।

महत्वपूर्ण : – **प्रश्नपुस्तिका खोलने पर प्रथमतः जॉच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभॉति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्ष निरीक्षक को दिखाकर उसी सीरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।**

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1. Select the correct template function:
   (A) template < class T >
   (B) class < template T >
   (C) template < T >
   (D) None of the above
2. Function template can accept:
   (A) Only one parameters
   (B) Only two parameters
   (C) Any number of parameters
   (D) None of the above
3. Template class is also called as:
   (A) Base class
   (B) Container class
   (C) Virtual class
   (D) Generic class
4. Templates are suitable for:
   (A) Any data type
   (B) Basic data type
   (C) Derived data type
   (D) All of the above
5. The object of fstream class provides:
   (A) Both read and write operations
   (B) Only read operation
   (C) Only write operation
   (D) None of the above
6. When a file is opened in read or write mode the file pointer is set:
   (A) At the beginning of the file
   (B) At the end of file
   (C) In the middle of the file
   (D) All of the above
7. To add data at the end of the file the filemust be opened in:
   (A) Append mode
   (B) Read mode
   (C) Write mode
   (D) Both (A) and (C)

8. Command line arguments are used with:

(A) main()

(B) Member function

(C) With all function

(D) None of the above

9. The eof()stand for:

(A) Error of file

(B) Error opening file

(C) End of file

(D) None of the above

10. A pointer to base class object can hold address of:

(A) Only derived class object

(B) Only base class object

(C) Address of base class object and its derived class object

(D) None of the above

11. Which among the following doesn't come under OOP concept?

(A) Data hiding

(B) Message passing

(C) Platform independent

(D) Data binding

12. Static binding is done at the time of:

(A) Compilation of the program

(B) At run-time

(C) Both (A) and (B)

(D) None of the above

13. A virtual member function is a member function that can:

(A) Be overridden by a sub class

(B) Be derived from another class

(C) Move to any class

(D) All of the above

14. Which class is used to design the base class?

(A) Derived & base class

(B) Derived class

(C) Base class

(D) Abstract class

15. In C++ it is possible to pass values to function by:

(A) Call by value

(B) Call by address

(C) Call by reference

(D) All of the above

16. The new operator is used to:

(A) Allocate memory

(B) Deallocate memory

(C) Delete object

(D) None of the above

17. Array elements are stored in:

(A) Continuous memory locations

(B) Different memory locations

(C) CPU registers

(D) None of the above

18. How many minimum numbers of functions are need to be presented in C++?

(A) 0

(B) 1

(C) 2

(D) 3

19. Virtual functions are mainly used to achieve

(A) Compile time polymorphism

(B) Interpreter polymorphism

(C) Runtime polymorphism

(D) Functions code polymorphism

20. An integer type pointer can hold only address of:

(A) integer variable

(B) float variable

(C) Any variable

(D) None of the above

21. Private data of any class is accessed by:

(A) Only public member functions of the same class

(B) Directly by the object

(C) Only private member function of the same class

(D) Both (A) and (C)

22. Members which are not intended to be inherited are declared as _____

(A) Public members

(B) Protected members

(C) Private members

(D) Private or Protected members

23. Which is the correct syntax of inheritance?

(A) class derived_classname : base_classname{/*define class body*/};

(B) class base_classname : derived_classname{/*define class body*/};

(C) class derived_classname : access base_classname{/*define class body*/};

(D) class base_classname : access derived_classname{/*define class body*/};

24. In single inheritance, constructors are executed from:

(A) Derived class to base class

(B) Base class to derived class

(C) Both (A) and (B)

(D) None of the above

25. In multilevel inheritance, the middle class acts as:

(A) Base class as well as derived class

(B) Only base class

(C) Only derived class

(D) None of the above

26. Identify the access specifier:

(A) public

(B) virtual

(C) void

(D) class

27. Class A is a base class of class B. The relationship between them is:

(A) Kind of relationship

(B) Has a relationship

(C) Is a relationship

(D) None of the above

28. The ambiguity of members normally occurs in:

(A) Single inheritance

(B) Multilevel inheritance

(C) Multiple inheritance

(D) None of the above

29. Which one of the following operator cannot be overloaded:

(A) Dot operator (.)

(B) Plus operator (+)

(C) & ampersand operator

(D) -- operator

30. A, B and C are objects of same class. To execute the statement C=A+B the operator must be overloaded

(A) +

(B) =

(C) Both (A) and (B)

(D) None of the above

31. Like constructors can there be more than one destructor in a class:

(A) Yes

(B) No

(C) May be

(D) Can't say

32. The keyword operator is used to overload an:

(A) Function

(B) Operator

(C) Class

(D) None of the above

33. Constructors and destructors are automatically invoked by:

(A) main() function

(B) Operating system

(C) Object

(D) Compiler

34. The destructor is executed when:

(A) When object contains nothing

(B) When object is not used

(C) Object goes out of scope

(D) None of the above

35. Constructor is executed when:

(A) Object is declared

(B) Object is destroyed

(C) Both (A) and (B)

(D) None of the above

36. How many parameters does a default constructor requires:

(A) 1

(B) 2

(C) 0

(D) 3

37. The size of object is equal to:

(A) Total size of member data variables

(B) Total size of member functions

(C) Both (A) and (B)

(D) None of the above

38. A non-member function that can access the private data of class is known as:

(A) Library function

(B) Static function

(C) Member function

(D) Friend function

39. The members of struct are by default:

(A) Protected

(B) Private

(C) Public

(D) None of the above

40. C++ provides inline functions to facilitate reduce function call overhead, mainly for:

(A) Small functions

(B) Large functions

(C) Member functions

(D) None of the above

41. The use of parenthesis is optional with one of the following statement:

(A) clrscr

(B) exit

(C) main

(D) return

42. The concept of declaring same function name with multiple definition is:

(A) Operator overloading

(B) Function overloading

(C) Both (A) and (B)

(D) None of the above

43. Every expression always return:

(A) 0 or 1

(B) 1 or 2

(C) -1 or 0

(D) None of the above

44. The curly braces are not present; the scope of loop statement is:

(A) Four statement

(B) Two statement

(C) One Statement

(D) None of the above

45. What will be the output of the following program:

```
#include <iostream.h>
void main()
{
for (int i=0;i<5;i++)
{
cout<<i;
}
cout<<" i="<<i
}
```

(A) 01234 i=5

(B) Undefined symbol i

(C) 012345

(D) None of the above

46. What will be the output of the following program:

```
#include <iostream.h>
void main()
{
char*n;
cout<<sizeof(n);
}
```

(A) 2
(B) 1
(C) 4
(D) None of the above

47. The new and delete are:
(A) Operators
(B) Keywords
(C) Both (A) and (B)
(D) None of the above

48. The manipulator << endl is equivalent to-
(A) '\n'
(B) '\t'
(C) '\b'
(D) None of the above

49. The method by which objects of one class get the properties of objects of another class is known as:
(A) Encapsulation
(B) Inheritance
(C) Abstraction
(D) None of the above

50. The packing of data and functions into a single component is:
(A) Encapsulation
(B) Polymorphism
(C) Abstraction
(D) None of the above

51. Which concept allows you to reuse the written code in C++?

(A) Inheritance

(B) Polymorphism

(C) Abstraction

(D) Encapsulation

52. Can we have overloading of the function templates?

(A) Yes

(B) No

(C) May be

(D) Can't Say

53. Which of the following is not a type of Constructor?

(A) Copy constructor

(B) Friend constructor

(C) Default constructor

(D) Parameterized constructor

54. Which operator has more precedence among the following?

*

++

+

-

(A) *

(B) ++

(C) +

(D) -

55. int main()
{
int i=0, x=0;
for (i=1; i<10; i*=2)
{
x++;
cout<<x;
}
cout<<x;
return 0;
}
(A) 1234567899
(B) 12345678910
(C) 123455
(D) 12344

56. Which of the following cannot be a friend?
(A) Function
(B) Object
(C) Class
(D) Operator function

57. What should be printed on screen?
int main()
{
int x = 5;
if (x++ = =5)
cout<<"Five"<<endl;
else
if (++x = = 6)
cout<<"Six"<<endl;
return 0;
}
(A) Five Six
(B) Five
(C) Six
(D) None of these

58. Which operator has highest precedence in * / %?

(A) *

(B) /

(C) %

(D) All have same precedence

59.
```
class base
{
public:
   base()
   {
       cout<<"BCon";
   }
   ~ base()
   {
      cout<<"BDest ";
   }
};
class derived: public base
{
public:
      derived()
      {   cout<<"DCon";
      }
      ~ derived()
      {   cout<<"DDest";
      }
};
int main()
{
derived object;
return 0;
}
```

(A) Dcon DDtest

(B) Dcon DDest BCon BDest

(C) BCon DCon DDest BDest

(D) BCon DCon BDes DDest

60. What is the output of below program?

```
int main()
{
int a = 10;
cout<<a++;
return 0;
}
```

(A) 10
(B) 11
(C) 12
(D) Not defined

61. What are the actual parameters in C++?

(A) Parameters with which functions are called
(B) Parameters which are used in the definition of a function
(C) Variables other than passed parameters in a function
(D) Variables that are never used in the function

62. What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
int main()
{
   int a, b, c;
   a = 2;
   b = 7;
   c = (a > b)?a:b;
   cout << c;
   return 0;
}
```

(A) 12
(B) 14
(C) 6
(D) 7

63. What is meant by a polymorphism in C++?

(A) Class having only single form

(B) Class having four forms

(C) Class having many forms

(D) Class having two forms

64. Which keyword is used to define the macros in C++?

(A) #macro

(B) #define

(C) macro

(D) define

65. Which of the following approach is used by C++?

(A) Left-right

(B) Right-left

(C) Bottom-up

(D) Top-down

66. Which of the following is used for comments in C++?

(A) /*comment*/

(B) //comment*/

(C) //comment

(D) Both // comment or /* comment */

67. Who invented C++?

(A) Dennis Ritchie

(B) Ken Thompson

(C) Brian Kernighan

(D) Bjarne Stroustrup

68. Suppose we are overloading a binary operator with friend function, how many parameter of argument we have to pass:

(A) 1

(B) 2

(C) 3

(D) None of the above

69. How many types of templates are there in C++?

(A) 1

(B) 2

(C) 3

(D) 4

70. Destructor has a same name as the constructor and it is preceded by?

(A) !

(B) ?

(C) ~

(D) $

71. A class serves as base class for many derived classes it is called:

(A) Polymorphism

(B) Multipath inheritance

(C) Hierarchical inheritance

(D) None of these

72. Why do we need to handle exceptions?

(A) To prevent abnormal termination of program

(B) To encourage prone program

(C) To avoid syntax

(D) T save memory

73. We are overloading a unary operator without friend function how many arguments we have to pass:

(A) 1

(B) 2

(C) 0

(D) None of these

74. Which statement is used to catch all types of exceptions?

(A) catch(...)

(B) catch(test 1)

(C) catch()

(D) catch(test)

75. Which of the following is an exception in C++?

(A) Semicolon not written

(B) Divide by zero

(C) Variable not declared

(D) An expression is wrongly written

76. The C++ code which causes abnormal termination behaviour of a program should be written under _____ block.

(A) Throw

(B) Catch

(C) Finally

(D) Try

77. When an object-oriented program detects an error within a function, the function_____.

(A) Throws an exception

(B) Throws a fit

(C) Catches a message

(D) Catches an exception

78. The return type you code for all constructors is _____.

(A) Void

(B) The class type

(C) The same type as the first data member defined in the class

(D) No type

79. The compiler converts your C++ instructions into _____.

(A) Edited code

(B) Object code

(C) Source code

(D) Translated code

80. Overloaded functions are required to:

(A) Have the same return type

(B) Have the same number of parameters

(C) Perform the same basic functions

(D) None of the above

81. The Statement int n[4] = {11, -13, 17, 105};

(A) Assigns the value – 13 to [2]

(B) Assigns the value 17 to n[2]

(C) Is wrong; it gives an error message

(D) Assigns the value 18 to n[2]

82. An asterisk placed after a data type means.

(A) Array to

(B) Pointer to

(C) Address to

(D) Located to

83. The generic name used for unexpected errors that occur during the execution of a program is:

(A) Infractions

(B) Exceptions

(C) Deviations

(D) Anomalies

84. Variables that are declared in a block are known as _____ variables to that block.

(A) Confined

(B) Local

(C) Global

(D) Immediate

85. The feature by which one object can interact with another object is_____.

(A) message passing

(B) message reading

(C) data transfer

(D) data binding

86. How many catch blocks can a class have?

(A) 2

(B) 3

(C) As many required

(D) Only 1

87. How many access specifier are there in C++?

(A) 1

(B) 2

(C) 3

(D) 4

88. If a derived class uses the public access specifier, then_____.

(A) public base class members remain public in the derived class

(B) protected base class members become public in the derived class

(C) Both (A) and (B)

(D) Neither (A) not (B)

89. The members of a class are by default:

(A) Private

(B) Public

(C) Protected

(D) None of these

90. If you declare two objects as Customer firstCust, secondCust; which of the following must be true?

(A) Each object's non-static data members will be stored in the same memory location

(B) Each object will be stored in the same memory location

(C) Each object will have a unique memory address

(D) You cannot declare two objects of the same class

91. A static data member is given a value:

(A) Within the class definition

(B) Outside the class definition

(C) When the program is executed

(D) Never

92. Which of the following is not a member of the class:

(A) Static function

(B) Friend function

(C) Const function

(D) Virtual function

93. The output of following code is:

```
#include <iostream.h>
int main()
{
   int v = 8;
   while (v>0)
   v--;
   cout<<v;
   return 0;
}
```

(A) 8 7 6 5 4 3 2 1 0

(B) 8 7 6 5 4 3 2 1

(C) 8

(D) 0

94. What will be the output of following program?

```
main()
{
   int a = 4, b = 9;
   cout<< (a>b?a:b);
}
```

(A) 4

(B) 9

(C) Syntax error

(D) None of these

95. What is the value of a in below program?

```
int main()
{
int a, b=20;
a = 90/b;
return 0;
}
```

(A) 4.5

(B) 4.0

(C) 4

(D) Compilation Error

96. Which of the following is the correct syntax to print the message in C++ language?

(A) cout<<“Hello world!”;

(B) cout<<Hello world!;

(C) cout<<“Hello world!;

(D) None of the above

97. Which keyword is used for the template?

(A) Template

(B) template

(C) Temp

(D) temp

98. In multiple catch() statement the number of throw statement are:

(A) Same as catch statement()

(B) Twice then catch statement()

(C) Only one throw statement

(D) None of the above

99. Exception is generated in:

(A) Try block

(B) Catch block

(C) Throw block

(D) None of the above

100. Function template are normally defined:

(A) in function main()

(B) Globally

(C) Anywhere

(D) In an class

******

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Rough Work / रफ कार्य

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