

Roll No.

Question Booklet Number

O. M. R. Serial No.

--	--	--	--	--	--	--	--

Question Booklet Number

B. C. A. (Second Semester) EXAMINATION, 2022-23

OBJECT ORIENTED PROGRAMMING USING C++

Paper Code						
B	C	A	2	0	0	1

Questions Booklet Series
A

Time : 1:30 Hours]

[Maximum Marks : 75

Instructions to the Examinee :

परीक्षार्थियों के लिए निर्देश :

1. Do not open the booklet unless you are asked to do so.
 2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
 3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.
1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
 2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
 3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

(Only for Rough Work)

1. C++ language was developed by
 - (A) Dennis Rechar
 - (B) Dennis M. Ritchie
 - (C) Bjarne Stroustrup
 - (D) Anders Hejlsberg
2. In which year, the name of the language was changed from “C with Classes” to C++ ?
 - (A) 1979
 - (B) 1972
 - (C) 1983
 - (D) 1986
3. C++ language is a successor to which language ?
 - (A) B
 - (B) C
 - (C) Java
 - (D) VB
4. C++ language is a
 - (A) Object Oriented Language
 - (B) Procedural Oriented Language
 - (C) Structural Oriented Language
 - (D) None of the above
5. C++ follows
 - (A) Top-down Design Approach
 - (B) Bottom-up Design Approach
 - (C) Both of the above
 - (D) None of the above.
6. C++ is a
 - (A) High-level language
 - (B) Medium level language
 - (C) Low-level language
 - (D) None of the above
7. How many keywords are there in C++ ?
 - (A) 32
 - (B) 48
 - (C) 99
 - (D) 95
8. Which of the following is not a valid keyword in C++ language ?
 - (A) while
 - (B) for
 - (C) switch
 - (D) do---while

9. Which of the following statements is correct about identifiers in C++ ?
- (A) Identifiers are the combination of alphanumeric characters that can be used for function and variable names.
 - (B) Identifiers are a combination of alphanumeric characters that can be used for looping statements.
 - (C) Both of the above
 - (D) None of the above
10. Which of the following languages translators is used in C++ ?
- (A) Assembler
 - (B) Interpreter
 - (C) Compiler
 - (D) Both Interpreter and Compiler
11. Which of the following whitespace characters can be used in C++ ?
- (1) Horizontal tab
 - (2) Vertical tab
 - (3) Form feed
 - (4) New line
- Options :
- (A) 1 and 2
 - (B) 3 and 4
 - (C) 1, 3 and 4
 - (D) All 1, 2, 3, 4
12. Which of the following is the correct extension of the C++ source code file ?
- (A) .cpp
 - (B) .c++
 - (C) Both of the above
 - (D) None of the above
13. C++ is a pure object-oriented language.
- (A) True
 - (B) False
14. Which of the following OOPs concepts are supported in C++ ?
- (1) Inheritance
 - (2) Encapsulation
 - (3) Abstraction
 - (4) Polymorphism
- Options :
- (A) 1 and 2
 - (B) 1, 2 and 3
 - (C) 1, 2 and 4
 - (D) All 1, 2, 3, 4
15. OOPs stands for :
- (A) Object Oriented Process System
 - (B) Object Oriented Programming System
 - (C) Object Oriented Programming Service
 - (D) Object Orientation Programming System

16. Is it true, C++ is a superset of C language ?
- (A) True
(B) False
17. C++ is a more secure programming language compared to C language.
- (A) True
(B) False
18. Which of the following header file is used to define cin cout ?
- (A) <iomanip.h>
(B) <iostream.h>
(C) <fstream.h>
(D) None of the above
19. The cin, cout are
- (A) library functions
(B) structures
(C) pointers
(D) objects
20. The stdout stands for
- (A) State Output
(B) Standard Output
(C) Stand Output
(D) Stream Output
21. Which of the following is an insertion operator in C++ ?
- (A) <<
(B) >>
(C) ->
(D) <<<
22. Which of the following is an extraction operator in C++ ?
- (A) >>>
(B) >>
(C) ->
(D) <<<
23. The endl is a
- (A) macro
(B) object
(C) pointers
(D) function
24. Which of the following are types of data types in C++ ?
- (1) Basic Data type
(2) Derived Data type
(3) Enumeration Data type
(4) User Defined Data type
- Options :
- (A) 1 and 2
(B) 1, 2 and 4
(C) 1, 2 and 3
(D) All 1, 2, 3, 4

25. The size of basic datatypes can be changed according to 32 or 64-bit operating systems.
- (A) True
(B) False
26. Which of the following is the correct format specifier for long double-type values in C++ ?
- (A) %f
(B) %ld
(C) %lf
(D) %ldf
27. Is C++ language supports both signed and unsigned literals ?
- (A) True
(B) False
28. Which of the following is not the basic type in C++ ?
- (A) int
(B) float
(C) array
(D) char
29. For which type, the format specifier “%i” is used ?
- (A) int
(B) float
(C) array
(D) char
30. Which of the following is not a correct qualifier in C++ ?
- (A) Size qualifier
(B) Type qualifier
(C) Sign qualifier
(D) None of the above
31. How many byte(s) does a short type take in C++ ?
- (A) 1
(B) 2
(C) 3
(D) 4
32. The operator ‘+’ is :
- (A) Unary Operator
(B) Binary Operator
(C) Both Unary and Binary Operator
(D) None of the above

33. The operator '%' is known as :
- (A) Division Operator
 - (B) Modulus Operator
 - (C) Percentage Operator
 - (D) None of the above
34. Which of the following operators is a ternary operator ?
- (A) +=
 - (B) !=
 - (C) ::
 - (D) ? :
35. Which of the following operators is known as Scope Resolution Operator ?
- (A) ::
 - (B) ? :
 - (C) ->
 - (D) .
36. Which of the following operators is known as Referential Operator ?
- (A) !=
 - (B) ? :
 - (C) ->
 - (D) sizeof
37. The sizeof() is a :
- (A) Unary Operator
 - (B) Binary Operator
 - (C) Ternary Operator
 - (D) None of the above
38. Which of the following operators is used to return the address of a variable ?
- (A) *
 - (B) ->
 - (C) &
 - (D) None of the above
39. Which of the following is known as the "value of" operator ?
- (A) *
 - (B) ->
 - (C) &
 - (D) None of the above
40. Which of the following is known as the "NOT" operator ?
- (A) ~
 - (B) !
 - (C) NOT
 - (D) None of the above

41. Which of the following is not an arithmetic operator ?
- (A) %
 - (B) /
 - (C) !
 - (D) *
42. Which of the following statements is correct about the global variable ?
- (A) A variable defined inside the function or block is known as a global variable.
 - (B) A variable defined outside the function or block is known as a global variable.
 - (C) Global variables can only declare inside the “.h” file.
 - (D) None of the above
43. Which of the following is the default storage class in C++ ?
- (A) auto
 - (B) extern
 - (C) register
 - (D) static
44. Which of the following is/are a decision-making statement ?
- (1) IF statement
 - (2) Switch statement
 - (3) Conditional operators
 - (4) None of the above
- Options :
- (A) 1 and 2
 - (B) 1 and 3
 - (C) Only 4
 - (D) 1, 2 and 3
45. Which of the following statements can replace the if-else statement ?
- (A) while loop
 - (B) do---while loop
 - (C) for loop
 - (D) conditional operator
46. Which of the following is an exit control loop ?
- (A) While loop
 - (B) Do---while loop
 - (C) For loop
 - (D) None of the above

47. Which of the following loops is normally used for a menu-driven program ?
- (A) Do---while loop
 - (B) For loop
 - (C) While loop
 - (D) None of the above
48. Which of the following loops is the best option when the number of iterations is known ?
- (A) While loop
 - (B) For loop
 - (C) Do---while loop
 - (D) All loops require that the iterations be known
49. Execution of C++ program starts from :
- (A) void function
 - (B) class
 - (C) main function
 - (D) user-defined function
50. Which of the following is a more effective way to call a function with arguments ?
- (A) Call by value
 - (B) Call by reference
 - (C) Call by address
 - (D) None of the above
51. How many minimum numbers of functions are required to execute a C++ program ?
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
52. What is the lifetime of a static variable declared in a user-defined function ?
- (A) Within the function only
 - (B) Within the main function only
 - (C) Whole program
 - (D) None of the above
53. Which of the following statements is correct about inline function ?
- (A) A function that is substituted at the place of call.
 - (B) A function that is called at compile time
 - (C) A function that contains only looping statements
 - (D) None of the above

54. Default values for a function are defined :
- (A) In function declaration
 - (B) In function definition
 - (C) During function call
 - (D) None of the above
55. Index of an array starts from :
- (A) 1
 - (B) 2
 - (C) 0
 - (D) -1
56. In C++, the array name denotes :
- (A) The base address of the array
 - (B) The first value of the array
 - (C) Last value of the array
 - (D) None of the above
57. If we create an array "Arr", which is the correct way to access the first element of the array ?
- (A) Arr[0]
 - (B) 0[Arr]
 - (C) *(Arr+0)
 - (D) All of the above
58. Can we create an array of objects in C++ ?
- (A) Yes
 - (B) No
59. An array occupies memory space in :
- (A) Contiguous manner
 - (B) Fragmented manner
 - (C) Linked list
 - (D) None of the above
60. How many dimensions are an array in C++ ?
- (A) 1D array
 - (B) 2D array
 - (C) 3D array
 - (D) No limit
61. When we pass an array to the function, then the function call will be :
- (A) Call by value
 - (B) Call by reference
 - (C) Both (A) and (B)
 - (D) None of the above
62. Which of the following operators is known as the indirection operator ?
- (A) ->
 - (B) &
 - (C) *
 - (D) None of the above

63. Which of the following is the incorrect way to declare a pointer ?
- (A) `int *ptr;`
 - (B) `int* ptr;`
 - (C) `int &ptr;`
 - (D) `int *ptr=0;`
64. A pointer can be initialized with :
- (A) Address of variable of the same type
 - (B) NULL
 - (C) 0
 - (D) All of the above
65. Which of the following is the correct way to get value from pointer "ptr" ?
- (A) `ptr`
 - (B) `&ptr`
 - (C) `*ptr`
 - (D) All of the above
66. What is the size of a pointer ?
- (A) 4 bytes
 - (B) 8 bytes
 - (C) 16 bytes
 - (D) Vary from processor to processor
67. Which of the following can point to any type of variable ?
- (A) Far pointer
 - (B) Null pointer
 - (C) Void pointer
 - (D) Dangling pointer
68. Which type of memory is allocated using dynamic memory allocation ?
- (A) Stack
 - (B) Heap
 - (C) Static
 - (D) Program code
69. Which of the following is/are used for dynamic memory allocation ?
- (1) `malloc`
 - (2) `calloc`
 - (3) `new`
 - (4) `free`
- Options :
- (A) 1 and 2
 - (B) 1, 2 and 4
 - (C) 2 and 3
 - (D) All 1, 2, 3 and 4

70. Can we allocate memory for an object dynamically ?
- (A) Yes
(B) No
71. Which of the following operators is used to release dynamically allocated memory space ?
- (A) new
(B) remove
(C) release
(D) delete
72. The “delete” is an operator in C++.
- (A) Yes
(B) No
73. Which of the following is a valid way to allocate dynamic memory for an integer variable ?
- (A) `int *ptr = new int(111);`
(B) `int *ptr = NULL; ptr = new int; *ptr=111;`
(C) `int *ptr; ptr = new int; *ptr=111;`
(D) All of the above
74. Which of the following statements is correct about class in C++ ?
- (A) Class is an instance that contains data member and member functions.
(B) Class is fundamental that contains data member and member functions.
(C) Class is a blueprint for a data type that encapsulates data member and member functions.
(D) None of the above
75. By default, members of a class are :
- (A) Public
(B) Private
(C) Protected
(D) None of the above
76. What is the size of an empty class in C++ ?
- (A) 1 byte
(B) 0 byte
(C) 2 byte
(D) 4 byte

77. Can we create multiple objects of a class in C++ ?
- (A) Yes
 - (B) No
78. Which of the following operators is used to access the members using the object of a class ?
- (A) .
 - (B) ->
 - (C) :
 - (D) None of the above
79. Which of the following operators is used to access the members using the pointer to the object of a class ?
- (A) .
 - (B) ->
 - (C) :
 - (D) None of the above
80. How many types of specifiers can be used in class in C++ ?
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
81. Which of the following statements is correct about constructors in C++ ?
- (A) A constructor is used to destroy an object.
 - (B) Constructor is used to initializing data members when an object gets created.
 - (C) Constructor is used to call the private function from outside the class.
 - (D) None of the above
82. How many parameters can be accepted by a default constructor ?
- (A) 1
 - (B) 2
 - (C) 0
 - (D) Infinite
83. What is the return type of a constructor ?
- (A) void
 - (B) mt
 - (C) float
 - (D) None of the above
84. Which of the following is an incorrect type of constructor in C++ ?
- (A) Copy constructor
 - (B) Move constructor
 - (C) Default constructor
 - (D) Parameterized constructor

85. If we did not create any constructor in the class, then which of the following constructors is automatically added to the class ?
- (A) Copy constructor
 - (B) Default constructor
 - (C) Parameterized constructor
 - (D) None of the above
86. Constructor and Destructor have the same name but destructor is preceded by :
- (A) ~
 - (B) !
 - (C) \$
 - (D) #
87. Which of the following constructors is used to create an object by initializing data members using an existing object ?
- (A) Default constructor
 - (B) Dynamic constructor
 - (C) Copy constructor
 - (D) None of the above
88. When does a destructor gets called ?
- (A) When an object gets created
 - (B) When an object gets destroyed
 - (C) After calling constructor
 - (D) None of the above
89. To overcome the ambiguity occurred due to multipath inheritance, C++ provides the keyword
- (A) virtual
 - (B) friend
 - (C) default
 - (D) None of the above
90. The procedure of creating a new class from one or more existing classes is termed as
- (A) Inheritance
 - (B) Polymorphism
 - (C) Encapsulation
 - (D) None of the above
91. The combination of one or more types of inheritance
- (A) Single
 - (B) Hybrid
 - (C) Multilevel
 - (D) None of the above
92. Which of the following is the other name of compile-time polymorphism ?
- (A) Static polymorphism
 - (B) Executing polymorphism
 - (C) Dynamic polymorphism
 - (D) Non-executing polymorphism

93. A file stream refers to the flow of data between a
- (A) Program and stream
 - (B) Program and object
 - (C) Program and file
 - (D) None of the above
94. When an exception is thrown, it needs to be
- (A) Executed
 - (B) Handled appropriately
 - (C) Resolved
 - (D) None of the above
95. C++ exception handling mechanism mainly uses how many keywords ?
- (A) Four
 - (B) Three
 - (C) Two
 - (D) None of the above
96. In C++ operator is used for dynamic memory allocation.
- (A) Scope resolution
 - (B) Conditional
 - (C) New
 - (D) Membership access
97. Which function return the current position of the get or put pointer in bytes ?
- (A) tellg()
 - (B) tellp()
 - (C) tell()
 - (D) Both (A) and (B)
98. A pure virtual function is a virtual function that
- (A) has nobody
 - (B) returns nothing
 - (C) is used in the base class
 - (D) Both (A) and (C)
99. means that the code associated with a given procedure call is not known until the time of the call at runtime.
- (A) Dynamic binding
 - (B) Runtime binding
 - (C) Early binding
 - (D) Static binding
100. Through, we can eliminate redundant code and extend the use of existing classes.
- (A) Encapsulation
 - (B) Polymorphism
 - (C) Inheritance
 - (D) Overloading

4. Four alternative answers are mentioned for each question as—A, B, C & D in the booklet. The candidate has to choose the correct answer and mark the same in the OMR Answer-Sheet as per the direction :

Example :

Question :

Q. 1 (A) ● (C) (D)

Q. 2 (A) (B) ● (D)

Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
6. All answers are to be given on OMR Answer sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
8. After the completion of the examination candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
9. There will be no negative marking.
10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
11. To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

Impt. : On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर—A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छँटना है। उत्तर को OMR आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

उदाहरण :

प्रश्न :

प्रश्न 1 (A) ● (C) (D)

प्रश्न 2 (A) (B) ● (D)

प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उन्हें निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
6. सभी उत्तर केवल ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
7. ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
9. निगेटिव मार्किंग नहीं है।
10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

महत्वपूर्ण : प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्न-पुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।