Sukanija Dog

CS/BCA(N)/ODD/SEM-3/BCAN-E302A/2019-20



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Paper Code: BCAN-E302A

PUID: 03495 (To be mentioned in the main answer script)
OBJECT ORIENTED PROGRAMMING WITH C++

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

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

GROUP - A

(Multiple Choice Type Questions)

- 1. Choose the correct alternatives for any ten of the following: $10 \times 1 = 10$
 - i) Which of the following statement(s) is/are true?
 - In Procedural programming languages, all function calls are resolved at compile-time
 - II. In Object Oriented programming languages, all function calls are resolved at compile-time
 - a) I only
- b) II only
- c) Both I and II
- d) Neither I nor II.

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	ii)	Identify the user-defined types from the following:	• .
	•	a) enumeration .	
		b) classes	
	•	c) both enumeration and classes	•
	•	d) int.	
. •	iii)	What are mandatory parts in the function declaration?	l
•	•		
		a) Return type, function name	
<u>.</u>		b) Return type, function name, parameters	
٠.	.,	c) Parameters, function name	+
	\$	d) Parameters, variables.	
	iv)	Which of the following operators cannot be	
	•	overloaded?	
		a) + b) ?:	
		c) - d) %	
	v)	If a class is derived privately from a base class then	
	;	a) no members of the base class is inherited	
		b) all members are accessible by the derived class	
		c) all the members are inherited by the class bu	1000
		are hidden and cannot be accessible	
2.0		d) no derivation of the class gives an error.	世代を
	è	- The desiration of the class gives an effor.	
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vi)	Stro	eams that will be put operations mus	perfo	rming both input and leclared as class
	a)	iostream	b)	fstream
•	c)	stdstream	d)	stdiostream.
vii)		ich is the most sign ng template classes		nt feature that arises by
	a)	Code readability		
•	b)	Ease in coding	•	
	c)	Code reusablility		
•	d)	Modularity in code) .	
viii)	An i	inline function is ex	pand	ed during
	a)	compile-time	b)	run-time
· · ·	c)	never expanded	d)	end of the program.
ix)	Inli	ne functions are ave	oided	when
	a)	function contains	static	: variables
	b)	function have recu	ırsive	calls
· · ·	c)	function have loop)S	
	,d)	all of these.		
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x) .	Wh	ich statement is ceptions?	used	to catch all	types o
	a)	Catch()	b)	Catch(Test t)	2. 97 4. 97 1. 98 1. 98
	c)	Catch()	d)	None of these	e.
xi)	Wh	ich of the following	is cor	rect ?	
	a)	C++ allows static	type c	hecking	
	b)	C++ allows dynan	nic typ	e checking	
	c)	C++ allows stati	c men	nber function	to be of
	d)	C++ allows both	n stat	ic and dyna	mic type
xií)	A vi	irtual function tha	t has i	no definition v	vithin the
•	bas	e class is called			
	a)	Pure virtual funct	ion		
	b)	Pure static function	on		

Pure Const. function

Friend function.

GROUP - B

(Short Answer Type Questions)

Answer any three of the following. $3 \times 5 = 15$

- 2. Define a 'date' object with suitable constructor method.

 Write a member function to swap two 'date' objects.
- 3. Differentiate between if-else and switch-case statements with example.
- 4. What is exception ? Explain exception handling mechanism in C++ with suitable example. 2+3
- 5. List some of the special properties of the constructor functions. In which direction constructors and destructors are invoked when base class is one and derived class are two?
- 6. Explain data abstraction with example.

GROUP - C

(Long Answer Type Questions)

Answer any three of the following. $3 \times 15 = 45$

7. a) How the derived class constructors are used to pass parameters to base class in multilevel inheritance? Explain with program.

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•	b)	Write a program in C++ to demonstrate example	of
E .		multiple inheritance.	8
8.	a)	Declare a class matrix and write a function to re	ad
		all the elements of a matrix of size $m \times n$ from t	he
:		keyboard for creating objects.	• 5
Ē	b)	What is friend function? What are the merits a	nd
		demerits of using friend function? Explain wi	th
		example. 2	+ 3
	c)	What is friend class? Explain with example. 2	+ 3
9.	Wr	ite short notes on the following:	× 5
•	a)	Pure virtual function	
	b)	Abstract Base class	
	c)	Dynamic binding.	
10.	a)	How many stream classes are required for open	ing
		files? Explain each.	+ 3
• 	b)	Write a note on file pointer manipulation.	5
	c)	Copy the content of one file to another file.	5
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- 11. a) What is STL? Explain STL programming model.
 - b) Write a class vector with a series of float values and perform the following operations:
 - i) To create a vector
 - ii) To display a vector.
 - c) Write the methods in String class.

5 + 5 + 5

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