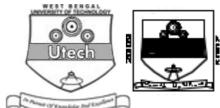
Time: 3 Hours]

OBJECT ORIENTED PROGRAMMING WITH C++ (SEMESTER - 2)

CS/MCA/SEM-2/MCA-205/09



[Full Marks: 70

1.	Signature of Invigilator							ď	1	Ennis	G. Paul Ex	7	 7		<u></u>
2.		o.													
	Roll No. of the Candidate														
	CS/MCA ENGINEERING & MANACO OBJECT ORIENTED PROGI	GEN	/ENT	EX	AM	INA	TIC	NS	•				_ R	- 2	2)

INSTRUCTIONS TO THE CANDIDATES:

- 1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
- 2. a) In **Group A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
 - b) For **Groups B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group B** are Short answer type. Questions of **Group C** are Long answer type. Write on both sides of the paper.
- 3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
- 4. Read the instructions given inside carefully before answering.
- 5. You should not forget to write the corresponding question numbers while answering.
- 6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
- 7. Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.
- 8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
- 9. Rough work, if necessary is to be done in this booklet only and cross it through.

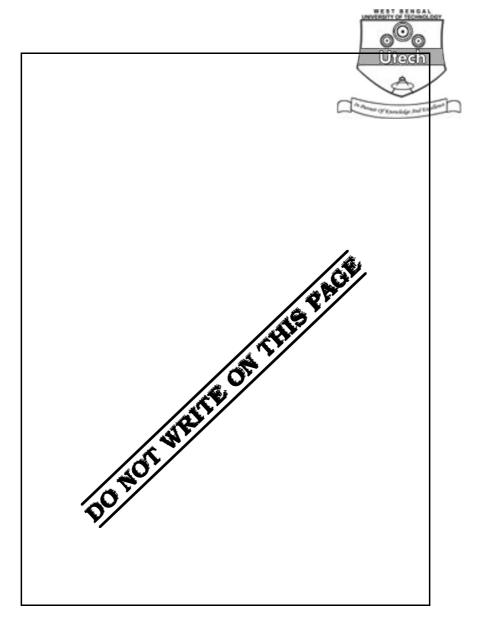
No additional sheets are to be used and no loose paper will be provided

FOR OFFICE USE / EVALUATION ONLY Marks Obtained Group - A Group - B Group - C Question Number Marks Signature Marks Obtained

Head-Examiner,	/Co-Ordinator	/Scrutineer

2365 (13/06)





Time: 3 Hours]



[Full Marks: 70

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009

OBJECT ORIENTED PROGRAMMING WITH C++

SEMESTER - 2

			GROUP	P – A		
			(Multiple Choice T	ype Q	uestions)	
1.	Choo	se the	e correct alternatives for any ten	of the	following :	10 ∞ 1 = 10
	i)		ch of the following operators is h they belong?	used	to bind the functions to t	the class to
		a)	~	b)	:	
		c)	::	d)	none of these.	
	ii)	Whic	ch of the following statements is	correc	t ?	
		a)	Destructors have a default value	ıe		
		b)	Destructors can take argument	ts		
		c)	Destructors deallocate memory	alloca	ted for the object by the co	nstructor
		d)	None of these.			
	iii)	In bi	inary operator overloading how	many	arguments does a memb	er function
		a)	One	b)	Two	

d)

Four.

c)

Three

CS	/MCA	/SEM-2	/ MCA-205	/09



4

iv)	Whi	ich is the default if no access sp	ecifier	is mentioned ?	
	a)	Public	b)	Private Utech	
	c)	Protected	d)	None of these.	
v)	Whe	en is the call by reference metho	d used	?	
	a)	Values of the original variable	s are to	o be changed	
	b)	Memory needs to be properly	utilized		
	c)	Both of these			
	d)	None of these.			
vi)		public and protected members of ived class by using which access		_	ers of the
	a)	Public	b)	Private	
	c)	Protected	d)	None of these.	
vii)	Whi	ich input function reads a line o	f text t	hat ends with a new line charac	cter?
	a)	gets()	b)	getline ()	
	c)	inline ()	d)	none of these.	
viii)	Whi	ich operator of the following can	not be	overloaded?	
	a)	::	b)	[1	
	c)	->	d)	=	

CS/M	CA/SE	M-2/M	CA-205/09					
	ix)	Whic	5 ch events occur during early bin	ding ?	I SO S			
		a)	Run-time polymorphism	b)	Compile time polymorphism			
		c)	Both of these	d)	None of these.			
	x)	A pu	re virtual function is a virtual fu	ınction	with which of the following?			
		a)	Complex constructs	b)	No body			
		c)	No Syntax Error	d)	None of these.			
	xi)	Whic	ch operator frees memory previous	usly all	ocated using new ?			
		a)	Free	b)	Malloc			
		c)	Delete	d)	None of these.			
	xii) Which of the following statements is incorrect?							
	a) Exceptions are errors that occur at compile-time							
	b) Exception is caught using Catch							
		c)	The Catch block must immedia	ately fo	llowing the try block			
		d)	None of these.					
			GROUE	P – B				
			(Short Answer Ty		estions)			
			Answer any three	of the f	following. 3	3 ∞ 5 = 15		
2.	Expla	ain ter	nplate with an example.			5		
3.	a)	When	n do you declare a member of a	class s	tatic ?			
	b) What do you mean by manipulators in C ⁺⁺ ? Give some examples. 2							

6



- 4. a) What is a parameterized constructor?
 - b) Is it mandatory to use constructors in a class?

3 + 2

- 5. a) What do you mean by copy constructor? Illustrate with proper example.
 - b) Why is it necessary to overload an operator?

3 + 2

6. What is a friend function ? "Use of friend function and encapsulation are contradictory" — comment critically. 2+3

GROUP - C

(Long Answer Type Questions)

Answer any three of the following.

 $3 \propto 15 = 45$

- 7. a) What is inheritance? Mention some advantages of inheritance.
 - b) Describe different types of inheritance with examples.
 - c) Explain some characteristics of object oriented programming.

3 + 8 + 4

- 8. a) What is virtual base class? When and why is it required to inherit a base class as virtual?
 - b) Write a program in C^{++} to show the implementation of virtual base class.
 - c) Write a program in C⁺⁺ to pass arguments to the constructor of a base class from the constructor of the derived class.
 - d) Why is reference of an object used in copy constructor?

4 + 6 + 3 + 2

- 9. a) Write a program in C⁺⁺ to delete a student record from a student's database and display the remaining records using file handling.
 - b) What is Exception handling? What is the usefulness of exception handling? Explain the same citing a suitable example. 8 + 7



- 10. a) Differentiate the following:
 - i) Malloc() and new
 - ii) inline function and macro



- iii) friend and member function.
- b) What is a constructor? Explain different types of constructor with example.
- c) What is the advantage of user-defined copy constructor over default copy constructor? 6+7+2
- 11. Write short notes on any three from the following:

3 ∞ **5**

- a) Namespace
- b) Explicit
- c) Mutable
- d) Operator overloading.

END