

 <p><b>ADAMAS UNIVERSITY</b> PURSUE EXCELLENCE</p>	<p align="center"><b>ADAMAS UNIVERSITY</b>  <b>END-SEMESTER EXAMINATION: MAY 2021</b>          (Academic Session: 2020 – 21)</p>		
<b>Name of the Program:</b> (Example: B. Sc./BBA/MA/B.Tech.)	B.Tech	<b>Semester:</b>	IV
<b>Paper Title:</b>	Object Oriented Programming	<b>Paper Code:</b>	ECS-CSM102
<b>Maximum Marks:</b>	40	<b>Time duration:</b>	3 hours
<b>Total No of questions:</b>	8	<b>Total No of Pages:</b>	1
(Any other information for the student may be mentioned here)			

**Answer all the Groups**

**Group A**

Answer all the questions of the following

$5 \times 1 = 5$

1. a) Define Abstraction.  
 b) What is Multiple Inheritance.  
 c) What is the format for defining a method in java?  
 d) What is constructor overloading.  
 e) List the 4 concepts of object oriented programming

**GROUP –B**

Answer *any three* of the following

$3 \times 5 = 15$

2. Distinguish Constructor and Destructor. Provide examples [2+3]
3. What is class and object? Explain with a short example [2+3]
4. Compare Overloading and Overriding. Provide examples [2+3]
5. Explain the use of static keyword. Provide examples [2+3]

**GROUP –C**

Answer *any two* of the following

$2 \times 10 = 20$

6. Write a program in java to create a Shape class and two subclasses called rectangle and triangle. Demonstrate the use of inheritance to calculate the area of the shape.
  7. Write a program in java to build a Calculator class with methods for performing addition, subtraction, multiplication and division.
  8. Write short notes on the four concept of OOPs. Provide suitable examples.
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