

	<p style="text-align: center;">ADAMAS UNIVERSITY END-SEMESTER EXAMINATION : JANUARY 2021 (Academic Session: 2020 – 21)</p>		
Name of the Program: (Example: B. Sc./BBA/MA/B.Tech.)	B.Tech	Semester: (I/III/ V/ VII/IX)	VII
Paper Title :	Object Oriented Programming	Paper Code:	ECS42106
Maximum Marks :	40	Time duration:	3HRS
Total No of questions:	9	Total No of Pages:	02
(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) Why abstract class cannot be **instantiated**?
- b) Which concept of Java is achieved by combining methods and attribute into a class?
- c) When method overriding occurs?
- d) Which keyword can be used in a subclass to call the constructor of super class?
- e) Which keyword is used for throwing exception manually?

GROUP –B

Answer *any three* of the following

$3 \times 5 = 15$

2. What is multithreading programming? How to create a thread by extending a thread class with suitable programs? Write the advantage of Unicode over ASCII code.
3. When the class variable is loaded into memory. How to resolve method overriding in run time show with an example?
4. Write the features of constructor? Write a java program which has a class name Employee combining the variables empid, empName, and empAddr, a constructor and a method display EmpInfo() and the Employee class is in package emppack1.

 Create a different package emppack2 has the class name company with the instance variable Compname and compAddr, a constructor and method display compInfo() display company information. Calss PackageDemo has the main method in which two objects of the type Employee and Company are created and company display companyInfo() method is called

5. Design a class to overload a method Area() that computes the area of a square, a rectangle and a circle:
Area of a square= s*s
Area of a Rectangle= (l*b)
Area of a circle= pi*r*r
Write a main method to create object of a class and call the above methods.

GROUP –C

Answer *any two* of the following

2 × 10 = 20

6. Explain the role of Classloader in JVM?
Design a class to represent a bank account using constructor. Include the following members:
Data Members
- Name of the depositor
 - Account number
 - Type of account
 - Balance amount in the account.
- Methods:
- To assign initial values
 - To deposit an amount
 - To withdraw an amount
 - To display the name and balance
- Write a main method to create object of a class and call the above methods.
7. How inheritance offers code reusability explain with an example? What is Interface? Write an abstract class with an abstract void special (int n). Create a sub class of this class and implement the special method that find the number is perfect number or not?
8. Explain try with multiple catch blocks with example? How do we add class and interface in package? Create a your own package empack1 and calculate the principle interest and compound interest with separate method like SI () and CI () with parameterized constructor and create another package empack2 in which import empack1 and write a main method to create the object of a class and call the above methods
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