Roll No.:
(To be filled in by the candidate)

PSG POLYTECHNIC COLLEGE, COIMBATORE - 641 004
SEMESTER EXAMINATIONS,   FEB 2022
DIP - DCN/DCE   SEMESTER: 5/4
C18502/Z18401 - JAVA PROGRAMMING

Time: 3 Hours   **Max. Marks: 75**

Instructions :

1. Answer All Questions either (a) Division or (b) Division.
2. Each question carries 15 marks.
3. Division (a) and (b) has three subdivisions (i), (ii) and (iii) which carries **2** marks, **3** marks and **10** marks respectively.

Q. No.	Div.	Sub. div.	Questions	Bloom's Taxonomy	Marks	Total Marks	Course outcome
1	a	i	To what does paradigm java belong? Why?	A	2	15	CO 1
		ii	What are the constituents of java environment?	R	3		
		iii	Explain the steps involved in creating and executing a java program.	U	10		
			OR				
	b	i	Brief on java expression and evaluate the expression 5+8/(3+1) +12*4+3.	A	2		

		ii	Find the value of i and sum in the following code:
			sum=0;
			  for(i=0;i<5;i++)
			  {
			      sum=sum+i;
			  }
			System.out.println(i);
			System.out.println(sum);
				A	3		

		iii	Write a program to convert to a string in lowercase to uppercase.	R	10		
2	a	i	What is a string constructor? How to create an empty string using this?	A	2	15	CO 2
		ii	Briefly explain visibility controls.	R	3		
		iii	Write a program to demonstrate the multiple inheritance using interface for your polytechnic college system.	A	10		
			OR				
	b	i	Mention the name of the operator used to call methods using objects.	R	2		
		ii	What do you mean by the term 'final'? Give the syntax for final class with an example.	U	3		
		iii	Explain the steps involved in creating objects with a sample code.	A	10		

3	a	i	What are packages? Classify its types.	R	2	15	CO 3
		ii	State the usage of the following java API packages: java.util, java.io and java.net	R	3		
		iii	Illustrate the steps involved in creating and accessing an user defined package with an example.	A	10		
	OR						
	b	i	Define asynchronous exceptions. Give two examples.	U	2		
		ii	Draw the hierarchical structure of exception classes.	A	3		
		iii	With an example, explain exception handling with all block.	R	10		
4	a	i	List the advantages of Multithreading.	R	2	15	CO 4
		ii	Draw the life cycle of a Thread.	U	3		
		iii	Develop a java program to demonstrate and print $2^{nd}, 5^{th}$ and 10th tables using threads.	A	10		
	OR						
	b	i	What do you mean by the terms "Event" and "Event handling"?	R	2		
		ii	Draw the hierarchy of input event class and specify all key events.	U	3		
		iii	Write a sample code to display the value of selected item in the JList and the type event generated for it.	A	10		
5	a	i	What are clients and servers?	R	2	15	CO 5
		ii	Mention steps involved in establishing a simple server.	U	3		
		iii	Explain simple server interaction using datagram socket.	A	10		
	OR						
	b	i	Expand JDBC and state the significance of JDBC.	A	2		
		ii	List any three JDBC drivers with brief note on each.	R	3		
		iii	Discuss the seven steps to connect JDBC.	A	10		
			Total			**75**	

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