KUMARAGURU
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B.E DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Third Semester

INFORMATION SCIENCE AND ENGINEERING

U18ISI3203: Object Oriented Programming

COURSE OUTCOMES

CO1: Analyze a problem and identify classes, objects, and the relationships among them.

CO2: Develop applications using various types of Inheritance and Interfaces.

CO3: Develop applications or programs using exception handling and multithreading.

CO4: Analyze an application and make use of object-oriented concepts for its implementation.

CO5: Develop programs using collections, files and streams in java.

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	List out the features of Java Programming.	CO1	[K1]
2.	Recall about typecasting and their types	CO1	[K1]
3.	Identify the ways to copy the values of one object into another in Java.	CO2	[K3]
4.	List few built in exceptions in Java.	CO2	[K2]
5.	Define autoboxing.	CO3	[K2]
6.	How to synchronize the block?	CO3	[K3]
7.	Specify the advantages of Generics	CO4	[K2]
8.	Compare String Buffer and StringBuilder class.	CO4	[K3]
9.	Why serialization important?	CO5	[K1]
10.	List the types of streams.	CO5	[K2]

Answer any FIVE Questions:-
PART B (5 x 4 = 20 Marks)
(Answer not more than 80 words)

11.	Elaborate on default constructor with an example.	CO1	[K3]
12.	Difference between Checked and Unchecked Exceptions.	CO2	[K3]
13.	Explain about Multilevel Inheritance	CO3	[K2]

| 14. | Identify the use of synchronization and explain their types. | | CO3 | [K₃] |

14. Identify the use of synchronization and explain their types. CO3 [K₃]

15. How to create a string object? Illustrate any 5 String methods with examples. CO4 [K₂]

16. Design the java program to the display the following output using CharArrayReader class CO5 [K₄]

Output:

j:106

a:97

v:118

a:97

Answer any FIVE Questions:-
PART C (5 x 12 = 60 Marks)
(Answer not more than 300 words)

17. a) Demonstrate on constructor overloading with an example. 6 CO1 [K₂]

    b) Describe function overloading with examples. 6 CO1 [K₂]

18.   Illustrate about Exception handling mechanism with an example. 12 CO2 [K₃]

19. a) Explain the Runtime polymorphism with an example. 6 CO3 [K₂]

    b) Identify the rules for java abstract class and explain the same. 6 CO3 [K₃]

20. a) Classify the Hierarchy of collection framework and explain the same. 6 CO4 [K₃]

    b) Construct the program to perform insertion and deletion in HashMap class 6 CO4 [K₃]

21.   Identify the different ways to iterate the elements in collection. Explain the Linked list Collection to implement the operation such as insertion and deletion of elements. 12 CO4 [K₃]

22.   Describe about FileWriter and FileReader Class and design the java program to Read and write the content into the file. 12 CO5 [K₃]

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