Register Number:……..

KUMARAGURU college of technology
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MCA DEGREE EXAMINATIONS: NOV/DEC 2018

(Regulation 2017)

Third Semester

MASTER OF COMPUTER APPLICATIONS

P17CAI3203: Programming With Java

COURSE OUTCOMES

CO1: Apply the fundamental core java, packages, database connectivity for computing.
CO2: Implement Java programs.
CO3: Make use of hierarchy of Java classes to provide a solution to a given set of requirements found in the Java API .
CO4: Use the frameworks JSP, Hibernate, Spring.
CO5: Design and implement server side programs using Servlets and JSP.

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

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

1.	Differentiate between JDK, JRE, and JVM	CO1	[K_1]
2.	Why is multiple inheritance not supported in Java?	CO1	[K_2]
3.	Differentiate between Array list And Vector.	CO1	[K_1]
4.	List the four advantages offered by Servlets over CGI.	CO5	[K_2]
5.	What are the two ways to iterate the elements of a collection?	CO2	[K_1]
6.	Define stubs and skeletons.	CO1	[K_2]
7.	What is the purpose of using web container?	CO2	[K_1]
8.	How Servlet container and web server process a request?	CO5	[K_3]
9.	State the factory methods of InetAddress.	CO2	[K_1]
10.	What is meant by URL?	CO1	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Write a java program to simulate the operation of numerical calculator to perform the functions Addition (+), Subtraction (-), Multiplication (*) and Division (/).	(8)	CO2	[K_6]
	b)	Draw and explain the hierarchy of Collection framework.	(8)	CO2	[K_3]

12.	a)	Illustrate the four forms of inheritance with an example for each.	(8)	CO1	[K_2]
	b)	Explain the difference between packages and interfaces in Java.	(8)	CO1	[K3]

13.

- Create a method called ***displayHighScorePosition***
  - player's name as a 1st parameter, and a 2nd parameter as a position in the high score table
  - You should display the players name along with a message like ***"managed to get into position "***and the position they got and a further message ***" on the high score table".***
- Create a 2nd method called **calculateHighScorePosition**
  - it should sent one argument only, **the player score**
  - it should **return** an **int**
  - the return data should be
    - **if the score is >=1000**
    - **if the score is >=500 and < 1000**
    - **if the score is >=100 and < 500**
    - **in all other cases**
- Call both methods and display the results of the following **a score of 1500, 900, 400 and 50.**

(16) CO2 [K_6]

14.	a)	Write a java program to display the student information using JDBC. (Students Details: S.No., Names, Branch, Section, Address, Phone No, Email ID)	(10)	CO1	[K_6]
	b)	Explain the working of RMI.	(6)	CO5	[K_2]
15.	a)	Discuss about hibernate with an example.	(8)	CO4	[K_2]
	b)	Write a java program to implement event handling in swing.	(8)	CO2	[K_5]

16. Write short note on the following: CO3 [K_2]

(i) Datagram Socket (8)

(ii) (ii) TCP/IP Client Sockets (8)

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