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Reg. No. :

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### Question Paper Code: 59801

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Information Technology

15UIT901- PROGRAMMING PARADIGMS

(Regulation 2015)

Duration: Three  hours                                    Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1.  Which of the following concepts means wrapping up of data                    CO1 -R
    and functions together?

    (a) Abstraction          (b) Encapsulation      (c) Inheritance      (d) Polymorphism

2.  In python a string is appended to another string by using                    CO2- R
    which operator.

    (a) +                    (b)*                   (c)[]                (d) +=

3.  Which of these methods can be used to obtain the coordinates                  CO3 -R
    of a mouse?

    (a) getPoint()                                  (b) getCoordiantes()

    (c) getMouseXY()                                (d) getM()

4.  Which of the following exception should be handled at compile time?           CO4- R

    (a)  Checked            (b) UnChecked          (c)  Error                (d) All

5.  Which two are valid constructors for Thread?                                  CO5- R
    1.  Thread(Runnable r, String name)
    2.  Thread()
    3.  Thread(int priority)
    4.  Thread(Runnable r, ThreadGroup g)
    5.  Thread(Runnable r, int priority)
    (a) 1 and 3            (b)  2 and 4          (c) 1 and 2            (d)  2 and 5

6. Compare Abstraction and Encapsulation in Java – OOPS With Suitable Programs                                          CO1 -R

7. How is J2SE different from J2EE?                                                                                      CO2- R

8. List the steps needed to show a frame.                                                                               CO3 -R

9. What are the motivations for generic programming?                                                                    CO4 -R

10. Brief about Executors class.                                                                                        CO5 -R

PART – C (5 x 16= 80Marks)

11. (a) Construct a Program to generate Student Internal Mark for the Department by using Inheritance Class, Polymorphism.   CO1- App   (16)

Or

(b) Write an interface which declares stack operations such as push() and pop(). Create a class which implements the interface operations that support growing stack.   CO1 -App   (16)

12. (a) Construct a ASP.net College website By using Dot net Architecture.   CO2 -App   (16)

Or

(b) (i) Compare the architecture of J2EE and .NET   CO2 -Ana   (8)

(ii) Explain the capabilities of DOJO.   CO2 -Ana   (8)

13. (a) (i) Design a 2D Program with Graphics 2D,Shapes,AWT and Color Explain a Program in Java   CO3- Ana   (8)

(ii)Write a JAVA program to design GUI for workshop registration form using Swing concept.   CO3 -Ana   (8)

Or

(b) (i) Explain the Model View Controller design pattern.   CO3- Ana   (8)

(ii)Write a JAVA program to demonstrate the different type of mouse events   CO3 -Ana   (8)

14. (a) Explain the generic classes and generic methods with example.   CO4- U   (16)

Or

(b) (i) Explain the keywords try, catch, throw, throws and finally in handling Exception. Give an example JAVA program to demonstrate the usage of the keywords related to handling Exception.   CO4 -Ana   (8)

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(ii) Write a JAVA program to create own Exception class    CO4 -Ana    (8)
"StateNameException".The instance of the Exception class should
be created and thrown to the program if the user inputs invalid State
name in India. Write a JAVA program to test the Exception class.

15. (a) Construct a Programby using Multithreading For FIR Application    CO5- U    (16)
in Police Station

<div align="center">Or</div>

(b) Discuss thread safe collections briefly. Write a simple multi    CO5 -U    (16)
threaded program for readers writers problem.

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