

Total No. of Questions : 8]

SEAT No. :

PB-3820

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**T.E. (Electronics/E&TC)**

**FUNDAMENTALS OF JAVA PROGRAMMING**  
**(2019 Pattern) (Semester - I) (304185C) (Elective-I)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Black figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain Inheritance and types of Inheritances in java. [8]
- b) With the help of proper example, explain use of super keyword. [5]
- c) Write a program to calculate the length of a string. [5]

OR

- Q2)** a) Explain static and dynamic polymorphism with suitable example. [8]
- b) What is an array? How to declare an array in Java? Compare C array with Java Array [5]
- c) Write a program using command line argument to add two number [5]

- Q3)** a) What is the difference between interface and class? [4]
- b) Design a package containing a class which defines a method to find area of circle. Import it in java application to calculate area of a circle. [8]
- c) How do we add class or interface to a package? Explain with suitable example [5]

OR

**P.T.O.**

**Q4) a)** What is an interface in java ? How do we create it? Give the example to create and to implement the interface. [8]

b) What is a package? Explain with the help of a simple example. [9]

**Q5) a)** Differentiate between multithreading and Multitasking [5]

b) Explain life cycle of an applet [8]

c) Explain try and catch block. [5]

OR

**Q6) a)** What is Multithreading? Explain ways to create a thread in java. [9]

b) Write a program to handle arithmetic exception. [5]

c) Write a simple java program to create an applet. [4]

**Q7) a)** List difference between swing and AWT in Java. [5]

b) Write a Java program using Swing to create text field. [8]

c) Explain the classes associated with file handling [4]

OR

**Q8) a)** Create application to create window in Java deriving from Frame class to display message "Welcome to World of Java" [7]

b) Explain the hierarchy of AWT. [5]

c) Write a code in Java to open a file for writing [5]

