Subject! Advanced Towa.

Q. P. CODE: 364100

(2½ hours)

Total Marks: 75

N. B.:	(1) All questions are compulsor	'n.
	(2) Make suitable assumptions	<u></u>

- able assumptions wherever necessary and state the assumptions made.
- (3) Answers to the same question must be written together.
- (4) Numbers to the right indicate marks.
- (5) Draw neat labeled diagrams wherever necessary.
- (6) Use of Non-programmable calculators is allowed.

1. Attempt any two of the following:

- a. What is event? List various event classes in Java. Explain any two event classes.
- b. What is the use of adapter class? Explain with suitable example.
- c. List various layouts used in Java. Explain any two with example.
- d. Write AWT based Java program that will read a number from user (TextBox) and display its factorial (Label).

2. Attempt any two of the following:

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- a. Write a Java program using swing components to illustrate the use of JSplitPane.
- b. What is purpose of JFileChooser? Write down constructors and methods of the same.
- c. How message box is displayed in Java? Give suitable example.
- d. Differentiate between JTextArea, JTextPasswordField and JTextField.

3. Attempt any two of the following:

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- a. Write the purpose of following methods of servlet interface
 - v. getServletInfo iii. service iv. getServletConfig ii. destroy
- b. What are the merits and demerits of servlets? Explair.
- c. With suitable diagram explain the life cycle of sor Wet.
- d. Write a servlet that will display whether the number entered by user is odd or even.

4. Attempt any two of the following:

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- a. List various classes used in JDBC. Also write the purpose of each.
- b. How result of a query is processed in JDBC? Explain with suitable example.
- c. List and explain JSP directives.
- d. Explain the include and forward agrion element of JSP.

5. Attempt any two of the following:

a. List and explain different types of Enterprise Beans.

- b. Write the benefits of EJB.
- c. List and explain the JSF lifecycle phases.
- d. What is facelet? Write the features of facelets.

6. Attempt any two of the following: a. With suitable diagram explain the architecture of Hibernate.

- c. What is the use of Action component of Struts 2? Write and explain various roles of

d. What is the importance of hibernate mapping file? Explain with suitable example.

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Ad. Java

7. Attempt <u>any three</u> of the following:

a. Write AWT based Java program that demonstrate the use of textbox, label and checkbox.

Attempt <u>any three</u> of the following:

a. Write AWT based Java program that demonstrate the use of textbox, label and checkbox. a. Write AWI based Java program that demonstrate the use of toplook, label and b. Explain how to assign color to frame background using JColorChooser class.

c. List various classes of Servlet API. Write the purpose of each. d. What are the different types of statements in JDBC? Explain.

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