

**IS604**

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M S RAMAIAH INSTITUTE OF TECHNOLOGY

(AUTONOMOUS INSTITUTE, AFFILIATED TO VTU)

BANGALORE - 560 054

SEMESTER END EXAMINATIONS - MAY / JUNE 2014

Course & Branch : **B.E. - INFORMATION SCIENCE & ENGG.** Semester : **VI**
Subject : **Advanced Programming with Java** Max. Marks : **100**
Subject Code : **IS604** Duration : **3 Hrs**

Instructions to the Candidates:

- Answer one full question from each unit.

UNIT - I

- Define package. Create a package called strpack which contains two methods that will perform to check whether the given string is palindrome or not and display the right most vowel of the string. Import the above package and test it. (08)
 - Explain the advantages of collection framework. (04)
 - Discuss any four classes and methods defined by collection classes. (08)
- Write a java program to create a user defined exception called FailException when the average of the best two internal marks is less than 10. (08)
 - Explain different interfaces supported by collection interfaces. (04)
 - List the different reasons that you might want to convert a collection into an array. With an example convert an arraylist into array. (08)

UNIT - II

- Explain the different methods supported by Iterator. (07)
 - Differentiate Swing and AWT (04)
 - Create a JFrame which contains patient information: It should receive the following inputs from the user. (i) Patient Name (ii) Patient Address in multi-line edit (iii) Create checkboxes which specify the tests to be conducted: Blood test, X-Ray, Ultra-sound scan, MRI scan (iv) Specialist to be consulted in menu: Neurologist, Gynecologist, Dentist and Surgeon. (v) Radio buttons to enter payment options: Cash, Cheque and Credit Card. (vi) Provide a command button (09)
- Create a class called product which contains data members product_no, Product_name, Price, No_of_quantity and three methods getinput(), display(), total_price(). Write a java program to store the above class in Linked List and display the total_price based on the product name with no_of_quantity selected by users and price per item. (09)
 - Why Generic collection is required? Explain. (03)
 - Explain the Swing Basic Container. (08)

**UNIT - III**

5. a) Create a JFrame Which will display a JLabel, JTextfield to input the data , (09)
collection of three radio button(Color named red, blue, green), and four
checkboxes(which display font style, font name, font size, regular) Write
an appropriate event handler which changes the textbox details based on
the color and font property values.
- b) With a neat diagram explain the life cycle of a JSP page. (05)
- c) What is the purpose of page directive in JSP?. Explain any five attributes (06)
used in page directives.
6. a) Explain the different components and methods used in JApplet. (04)
- b) What is the use of scripting elements?. Explain its types. (07)
- c) Create a HTML form with user name , age and submit button. Write a JSP (09)
program which will get the values from HTML form and display the
message like "User is eligible to vote or not", along with the message the
page includes counter jsp it count the number of visitor visited the
page.(Font size 16, Color red)

UNIT - IV

7. a) What it is the purpose of action elements of java server pages?. Explain (05)
the technical difference between include directive and include action
elements.
- b) Explain the different ways of executing a query in JDBC with example. (06)
- c) Design a HTML form with bookno, title, author, publication price and submit (09)
button. Using jsp database connectivity get the data from html form and
insert the records into the database, retrieve the book lists for the
particular title matches and display the details
8. a) Create a Simple authentication Form with username, password and submit (10)
button, Using JSP program check for username and password, if matches
display the current system time otherwise forward the Error message JSP
file which display an appropriate message on the screen.
- b) List the Advantages of JDBC. With a neat diagram explain the different (10)
types of JDBC drivers.

UNIT - V

9. a) Explain the different thread states and different methods used in each (10)
states.
- b) Write a RMI program to create a vowel method(Which performs the right (10)
most vowel of the given string) in server machine and invoke the method
in client machine.
10. a) Discuss the different ways a thread can be created in java. Write a java (10)
program to create a thread that will display the first n prime numbers.
- b) What is the use of RMI?. With a neat diagram explain the RMI architecture. (10)
