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Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 95313

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Sixth Semester

Software Engineering

ESE 063 — INTERNET PROGRAMMING

(Regulations 2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write any two differences between java and C++.

2. What is JVM?

3. When do we declare a method or class final?

4. Write code to initialize a two dimensional array such that all the diagonal elements equal to 1 and others to 0 using nested for loop.

5. State the differences between class and interface.

6. List the steps involved in creating a package with multiple public classes.

7. What is a stream class? How is the stream classes classified?

8. What is the purpose of wait and notify methods.

9. How applets differ from the application programs?

10. How the tags are used for passing parameters to applet?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What is type casting? Illustrate with examples. (6)

(ii) Discuss the different types of operators in java with the examples. (10)

Or

(b) (i) Describe the types of decision making statements with an example. (8)

(ii) Write a program to determine the sum of the following harmonic series for a given value of n: 1+1/2+1/3+....+1/n.

The value of n should be given interactively through the keyboard. (8)

12. (a) (i) What is a constructor? What are its special properties? (4)

(ii) Compare and contrast overloading and overriding methods with example. (4)

(iii) Write java program to create a bank account and include the members as follows. (8)

Data members: Name of the depositor, Account number, Type of account, Balance amount in the account.

Data Methods: To assign initial value, to deposit the amount, to withdraw the amount after checking balance, to display the name and the balance.

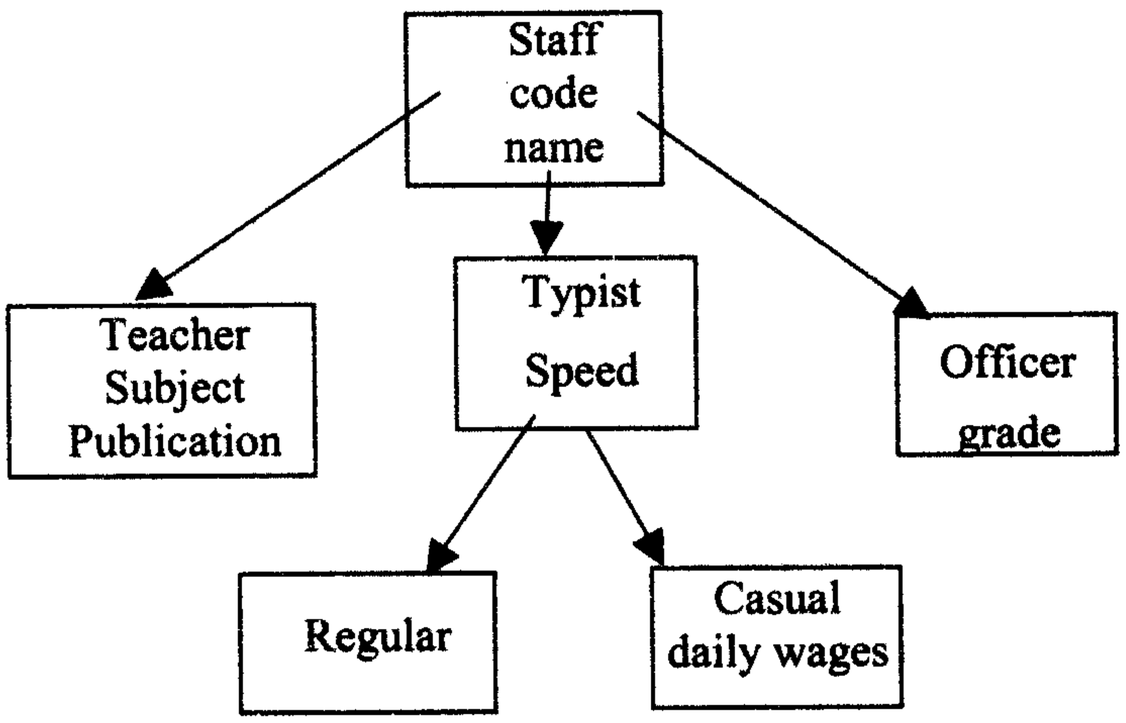
Or

(b) (i) Write a program that accepts a shopping list of five items from the command line and stores them In a vector. (4)

(ii) How does String class differ from the String Buffer class? (4)

(iii) Write a java program for alphabetical ordering of strings? (8)

13. (a) (i) An educational institution wishes to maintain a database of its employees .The database is divided into a number of classes whose hierarchical relationships are shown below: Specify all the classes and define methods to create database and retrieve information as and when required. (10)



(ii) Illustrate the concepts of implementing multiple inheritance using interfaces. (6)

Or

(b) (i) What is static import? How is it useful? (6)

(ii) Design a package to contain the class **student** and another package to contain the interface **sports** and write a program that uses class and interface from above packages to display marks and sports activity of a given student. (10)

14. (a) (i) Discuss about life cycle of a thread. (10)

(ii) Explain the creation of thread using runnable interface with example. (6)

Or

(b) (i) Describe the major tasks of input and output stream classes. (8)

(ii) Define an exception called "NoMatchException" that is thrown when a string is not equal to "India". Write a program that uses this exception. (8)

15. (a) (i) Describe the different stages in the life cycle of an applet. Distinguish between init() and start() methods. (6)

(ii) Explain the client /server relationships applied to Java applets. (6)

(iii) Why do applet classes need to be declared as public? (4)

Or

(b) Develop an applet that receives three numeric values as input from the user and then displays the largest of the three on the screen. Write a HTML page to test the applet. (16)