VIT UNIVERSITY
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VELLORE ▪ CHENNAI
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Term End Examination - November 2014

Course : ITE311 - Network Programming **Slot : G1+TG1**

Class NBR : 1618

Time : Three Hours **Max.Marks:100**

PART – A (8 X 5 = 40 Marks)
Answer ALL Questions

1. a) Describe HTTP request and response. **[2.5]**
   b) Identify the type of data that MIME supports. **[2.5]**

2. a) Classify the different IP address classes. **[3]**
   b) Class B Network has following IP address **[1]**
   199.1.32.1. Find out the no of hosts does it support.
   c) Justify the statement Java is suited for Network Programming. **[1]**

3. a) Write a java program that prints all IP addresses of a given URL. **[2.5]**
   b) Illustrate the concept of deadlock with a java program. **[2.5]**

4. Analyse the following socket options:
   a) SO_TIMEOUT
   b) SO_KEEPALIVE
   c) SO_BINDADDR
   d) SO_LINGER

5. Write a java program to transfer data from client to server over secure channel.

6. a) Write a java program to convert given relative URI to absolute URI.
   b) List advantages and disadvantages of RMI.

7. Narrate the basic steps for opening URL connections and reading data from a server.

8. Write a java program to create two threads where one thread is used to find the factorial of a given number another thread should generate Fibonacci series.

PART – B (6 X 10 = 60 Marks)
Answer any SIX Questions

9. Write a java program for Chat application using TCP socket.
   a) one to one b) one to Many

10. Write a java RMI program to calculate the volume of a cube.

11. Write a java program using THREAD to find the grade and average marks of 5 subjects for 100 students based on following data:

Average Marks	Grade
1-50	F
50-60	D
60-70	C
70-80	B
80-90	A

a) Use SYNCHRONIZED BLOCKS approach for synchronizing the threads. **[5]**

b) Use SYNCHRONIZED METHODS approach for synchronizing the threads. **[5]**

12. Discuss various constructors and methods used in sockets for clients with an example.

13. Write short notes on:

a) W3C **[3]**

b) IETF **[4]**

c) URN **[3]**

14. a) Compare and contrast TCP and UDP. **[5]**

b) Write a java program to implement UDP echo server and UDP echo client. **[5]**

15. a) Write a java program to retrieve the following details of HTTP response: **[5]**

i) Content Encoding.

ii) Date

iii) Last-Modified

b) Explain various methods in Datagram Channel class and list out the steps involved in establishing UDP connection using Datagram channel. **[5]**

16. a) Write a java program to send an email using JavaMail API. **[5]**

b) Write a Java program to read mail headers. **[5]**

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