BSc IT 2010 : IT

Answer key / correct responses on:

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MUMBAI UNIVERSITY (BSc IT)

Con. 1647–10.

IT - 2010

MB–5602

[Total Marks : 100

N. B.: (1) Question No. 1 is compulsory.
(2) Attempt any four from Question Nos. 2 to 7.
(3) Make suitable assumptions wherever necessary and state the assumptions made.
(4) Answers to the same question must be written together.
(5) Numbers to the right indicate marks.
(6) Draw neat labeled diagrams wherever necessary.

1.	a)	What are the elements of WLAN?	5
	b)	Describe Distributed Garbage Collection in RMI.	5
	c)	What are the contents of Differentiated services (DS) Byte in IP Datagram?	5
	d)	Explain the constructors used to create client server application in java.net.datagrampacket	5
2.	a)	How does RMI client find remote service? "Interfaces are the Heart of RMI system" Discuss.	8
	b)	Write a program in TCP using Socket( ) and ServerSocket( ) to count number of digits in the given number.	8
	c)	Explain the mapping done in ARP. What is the role of proxy ARP in it?	4
3.	a)	Write RMI system which accepts a number and prints each number in word form. (e.g. 12 = one two)	8
	b)	How does RIP improve stability in updating routing table?	8
	c)	Installation and maintenance of WLAN is cheaper as compared to wired LAN. Do you agree? Discuss.	4
4.	a)	What is the purpose of Retransmission timer in TCP? How is retransmission time calculated? If previous RTT of TCP is 100 microsec and it takes 50 microsec for the segment to be acknowledged at this moment, then what is the new value of retransmission time?	8
	b)	What are the contents Cache control module? How is it updating the cache table entries?	8
	c)	What are the components of CORBA ? Explain.	4
5.	a)	Explain the terminologies in BGP- Autonomous System, Path Vector message, Loop Prevention, Policy Routing, Path Attributes.	8
	b)	What is Fragmentation in IP? What are its disadvantages? Explain in detail.	8
	c)	Write a short note on Bluetooth.	4

6. a) How does CORBA function on client and server side?   8

    b) What are the types of OSPF packets? What is the purpose of each packet?   8

    c) A TCP is in CLOSED state. What is the state of the connection and action after each of the following event?   4

        i) Application sends "Active Open" command.

        ii) Application issues "Close" command.

7. a) An IP packet has arrived with the following dump of data in Hexadecimal form   8

        47 10 00 45 00 02 20 00 10 06 00 00 7C 4E 03 02 B4 0E 0F 02

    Give the answers for the following :

        i)   Is the packet fragmented?

        ii)   How many hops a packet can travel before being dropped?

        iii)   What is the type of service?

        iv)   Is there any option in datagram?

    b) What are the benefits of CORBA ORB?   8

    c) What are the uses of WLAN? Explain.   4