



**MAULANA ABUL KALAM AZAD UNIVERSITY OF
'TECHNOLOGY, WEST BENGAL**

Paper Code : IT-701

INTERNET TECHNOLOGY

Time Allotted: 3 Hours

Full Marks: 70

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

Group – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives of the following: <http://www.makaut.com> 1×10=10
- (i) The _____ address uniquely identifies a running application program.
- (a) IP (b) Host
(c) NIC (d) ~~Socket~~
- (ii) Which of the following is an interior routing protocol?
- (a) RIP (b) OSPF
(c) BGP (d) Both (a) and (b)
- (iii) If a host broadcasts a frame that includes a source and destination hardware address and its purpose is to assign IP address to itself, which protocol does the host use?
- (a) ARP (b) ~~RARP~~
(c) RPF (d) RPM
- (iv) The DHCP client starts using the assigned address in the _____ state.
- (a) select (b) ~~rebind~~
(c) bound (d) init
- (v) The position of SSL in the TCP/IP protocol suite is in between <http://www.makaut.com>
- (a) Transport and Internet layer. (b) Data link and Physical layer.
(c) ~~Application and Transport layer.~~ (d) None of these

- (vi) HTTP is a _____ protocol.
- (a) stateless (b) statefull
(c) Both (a) and (b) (d) None of these
- (vii) In which method URL exposes the data?
- (a) Post (b) Get
(c) Both Post and Get (d) All of these
- (viii) FORM tag is used in HTML inside _____ Tag.
- (a) Head (b) Title
(c) Body (d) Any of these
- (ix) Applet is based on the concept of <http://www.makaut.com>
- (a) server push (b) server pull
(c) client push (d) client pull
- (x) Choose the correct HTML tag for largest heading.
- (a) <h6> (b) Head
(c) <h1> (d) <heading>

Group - B

(Short Answer Type Questions)

Answer any three of the following.

5×3=15

- ✓ 2. What is RMI? Briefly describe RMI architecture. 2+3=5
- ✓ 3. Explain Cookies. Describe Applet lifecycle. <http://www.makaut.com> 2+3=5
4. Distinguish between IPV4 and IPV6. Explain the field Header Checksum in an IPV4 packet. 3+2=5
5. What is Subnet? A small organization is given a block with the beginning address and the prefix length 205.16.37.24/29. What is the range of the block and how many addresses are there in the block? 2+3=5
- ✓ 6. What do you mean by Anonymous FTP? What is the reason for delayed delivery of Email by SMTP? 2+3=5

Group – C

(Long Answer Type Questions)

15×3=45

Answer any three of the following.

7. Explain the recursive resolution of DNS by a neatly labelled diagram. Describe the remote login process of TelNet.

✓ An organization is granted the block with beginning address 14.24.74.0/24. It needs to have three subnets as: <http://www.makaut.com>

1st subnet : 120 addresses

2nd subnet : 60 addresses

3rd subnet : 10 addresses

Design the subnets (Find out total number of addresses in the block, length of the subnet id for each subnet, subnet mask for each subnet, range of each subnet).

4+5+6=15

8. (a) What is the difference between get and post method?

(b) Create a digital clock using java-script.

(c) What is Frame? Explain merits and demerits of frame.

(d) What is DOM?

2+7+(1+2)+3=15

9. (a) Create an XML document that contains the name and price per pound of coffee beans:

(i) In your XML document mention all properties of XML declaration.

(ii) The root element has name <coffee_bean>.

(iii) Create nested elements for different types of coffee.

(b) What is well formed XML? <http://www.makaut.com>

(c) Explain internal and external DTD with example.

8+2+5=15

10. (a) What is the difference between List and Arrays in perl?

(b) Explain the shift and unshift operator in perl.

(c) What is variable interpolation in perl?

(d) What is Associate array? <http://www.makaut.com>

(e) Write a program in perl to calculate factorial of a given number recursively.

3+3+3+3+3=15

11.

Write short notes on *any three* of the following: <http://www.makaut.com>

- ☒ (i) POP3
 - ☒ (ii) Web Crawler
 - ☒ (iii) VoIP
 - (iv) Black Hat SEO techniques
 - (v) XHTML
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