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CN - CT2

PART-B

Q1) a) (A)——(B)

MTU = 1500 bytes

20 bytes   1480 bytes

Total size = 10000 + 8 = 10008

Each unit sends 1480 bytes max.

No. of transmissions = $\dfrac{10008}{1480}$ = 7

Since 1480 × 7 = 10360 and 1480 × 6 = 8880

Last fragment = ~~10000~~ 10008 - 8880

= 1128 bytes.

b) MTU = 1000   IP header = 20

Pay load = 1000 - 20 = 980

Since it should be a multiple of 8, fragment size = 976

∴ 3rd fragment = 976 × (3-1) / 8 = 244

∴ fragmentation offset value stored in the third fragment

is 244.

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84) The DHCP service can use DNS in two ways:-

- The DHCP server can look up the host name that is mapped to an IP address that the server is assigning to the client. The server ~~then returns~~ then returns the client's host name along with the client's other configuration information.

- The DHCP server can attempt to make a DNS mapping on a client's behalf, if the DHCP server is configured to update DNS. The client can supply its own host name when requesting DHCP service. If configured to make DNS updates, the DHCP server attempts to update DNS with the client's suggested host name. If it is not successful, the DHCP returns a different host name to the client.

<u>Limitations of Bootstrap protocol which lead to development of DHCP</u>

- Bootstrap protocol does not provide temporary IP addressing.

- Bootstrap protocol does not support DHCP clients.

- In bootstrap protocol, manual-configuration takes place.

- Bootstrap protocol does not support mobile machines.

- Bootstrap protocol can have errors due to manual-configuration.

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Q4) <u>Need of for Inverse Domain in DNS</u>

The inverse domain is used for mapping an address to a name. When the server has recieved a request from the client, and the server contains the files of only authorized clients. To determine whether a client is on the authorized list or not, it sends a query to the DNS server and asks for mapping an address to the domain.

Q3) a) The internet Corporation for Assigned Names and Numbers (ICANN) is responsible for domains. Yes, Bob can get a domain name even if the Delhi server is not having rights to give domain name.