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T.Y. B.Sc. (Semester-IV) EXAMINATION, 2016

COMPUTER SCIENCE

Paper III

(CS-343 : Computer Networks-II)

(2013 PATTERN)

Time : 2 Hours

Maximum Marks : 40

**N.B. :—** (i) Neat diagrams must be drawn whenever necessary.

(ii) All questions are compulsory.

(iii) Figures to the right indicate full marks.

1. Attempt *all* of the following : [10×1=10]
- (a) Which types of services are defined by IEEE-802.11 ?
  - (b) Give types of Bluetooth networks.
  - (c) What is Internetworking ?
  - (d) Find out the class, Net ID and Host ID of ip address 126.47.50.23.
  - (e) What type of address allocation DHCP provides ?
  - (f) Give header size of UDP packet.
  - (g) What is cipher ?
  - (h) What is encryption ?
  - (i) Using substitution cipher transform the message "HAPPY BIRTHDAY TO YOU" key is 'S'.
  - (j) What is steganography ?

2. Attempt any *two* of the following : [2×5=10]
- (a) What is Ethernet ? Give its type with short description.
  - (b) Write a short note on SMTP.
  - (c) Explain classful addressing in detail.
3. Attempt any *two* of following : [2×5=10]
- (a) Explain ARP packet format with suitable diagram.
  - (b) Write a short note on UDP.
  - (c) Discuss DNS in detail.
4. Attempt A *or* B of the following : [1×10=10]
- (A) (1) Using transposition cipher convert the following plaintext  
"The reverse process of transforming ciphertext message  
back to plaintext message is called decryption" key :  
ZQARXMP. [4]
- (2) For the given IP address 156.11.37.25/28 in some block  
of addresses calculate :  
(i) Address mask  
(ii) First address of the block  
(iii) Last address of the block  
(iv) Number of address in the block. [4]
- (3) List different task performed by network layer.  
(any *four*): [2]
- Or*
- (B) (i) Explain firewalls. [4]  
(ii) Explain different attributes used to assign membership  
in VLAN with advantages of VLAN. [4]  
(iii) Give any *four* goals of fast Ethernet. [2]