Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

G:\logo and QP Template\logo 3 Feb 2018 final.tif

**End Semester Examination – Nov/Dec – 2018**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14CS2066** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TCP/IP** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Show the communication at the application layer for the private internet exhibited below. | CO1 | 10 |
| b. | Compare and Contrast CSMA/CD and CSMA/CA. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Discuss the working of various connecting devices. | CO1 | 10 |
| b. | Discuss the need of fragmentation at each router. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Find the class, default subnet mask, netid and host id for the following IP Address.  i. 208.34.54.12  ii. 238.34.2.1  iii.242.34.2.8  iv. 129.14.6.8  v. 114.34.2.8 | CO1 | 15 |
| b. | Write the range of private IP address space. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | Recall the six options used for datagram control in IPV4 header. | CO2 | 10 |
| b. | Calculate checksum for the following header structure.   |  |  |  |  | | --- | --- | --- | --- | | 4 | 5 | 0 | 28 | | 1 | | 0 | 0 | | 4 | 17 | 0 |  | | 10.12.14.5 | | | | | 12.6.7.9 | | | | | CO1 | 10 |
|  |  |  |  |  |
| 5. |  | With neat sketch explain the working of Address resolution protocol. | CO1 | 20 |
| (OR) | | | | |
| 6. | a. | Discuss the various inefficiencies in Mobile IP. | CO3 | 10 |
| b. | How does a Hop count limit alleviate RIP’s problems? | CO3 | 10 |
|  |  |  |  |  |
| 7. |  | The following is a dump of a UDP header in hexadecimal format.  **CB84000D001C001C**  a. What is the source port number?  b. What is the destination port number?  c. What is the total length of the user datagram?  d. What is the length of the data?  e. Is the packet directed from a client to a server of vice versa? | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Illustrate with an example the working of DHCP. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain the working of the following application layer protocols.  a. Telnet  b. SMTP  c. FTP  d. HTTP | CO3 | 20 |