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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April / May – 2017**

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

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

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| Q. No. | Sub Div. | Questions | | Course  Outcome | | Marks |
| 1. | a. | How are OSI and ISO related to each other? | | CO1 | | 5 |
|  | b. | Narrate the function of various layers in TCP/IP Protocol Suite. | | CO1 | | 15 |
|  |  | (OR) | |  | |  |
| 2. | a. | What is the difference between unicast, multicast and broadcast addresses? | | CO1 | | 5 |
|  | b. | Explain the underlying technologies used to access internet in a home & business network. | | CO3 | | 15 |
| 3. | a. | With neat sketch explain the IP Header. | | CO2 | | 10 |
|  | b. | Explain the need of Fragmentation in network layer with an example. | | CO2 | | 10 |
|  |  | (OR) | |  | |  |
| 4. | a. | State any two difference between packet and circuit switching. | | CO2 | | 4 |
|  | b. | Change the following IPv4 addresses from binary notation to dotted-decimal notation.  i) 10000001 00001011 00001011 11101111  ii) 11000001 10000011 00011011 11111111 | | CO2 | | 4 |
|  | c. | An organization is granted the block 130.34.12.64/26. The organization needs four subnetworks, each with an equal number of hosts. Design the subnetworks and find the information about each network. | | CO3 | | 12 |
| 5 | a. | With neat sketch explain the operation of mobile IP. | | CO3 | | 12 |
|  | b. | Compare and Contrast Link State and Distance Vector Routing Protocol. | | CO3 | | 8 |
|  |  | (OR) | |  | |  |
| 6 | a. | With neat Sketch Explain the TCP Header. | | CO2 | | 15 |
|  | b. | Explain how reliability is enforced in transport layer by TCP. | | CO2 | | 5 |
| 7 | a. | Why do certain application run over UDP? | | CO2 | | 2 |
|  | b. | What are the various services provided by TCP? | | CO2 | | 10 |
|  | c. | Why do we need windows in TCP? Explain how it helps to regulate flow control. | | CO2 | | 8 |
|  |  | | (OR) |  |  | |
| 8 | a. | | How Domain Name System balances the load in Internet? | CO3 | 5 | |
|  | b. | | With neat sketch explain the DNS architecture. | CO3 | 5 | |
|  | c. | | Explain the various querying process in DNS. | CO3 | 10 | |
|  |  | | **Compulsory:** |  |  | |
| 9 | a. | | How a computer gets an IP address when connected to the internet. List the control messages exchanged between the client and the server. | CO1 | 10 | |
|  | b. | | Compare and contrast Client server and Peer-Peer architecture. | CO1 | 5 | |
|  | c. | | Discuss the difference between running an application on TCP and UDP. | CO2 | 5 | |