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

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

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| **Code :** | **09IT214/ 12IT209/ IT248** | **Duration :** | **3hrs** |
| **Sub. Name :** | **COMPUTER NETWORKS** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | The time required to examine the packet’s header and determine where to direct the packet is part of the \_\_\_\_\_\_\_\_\_\_ delay. | 1 |
| 2. | One of the greatest strength of P2P architecture is its \_\_\_\_\_\_\_\_\_\_. | 1 |
| 3. | The default mode of HTTP uses \_\_\_\_\_\_\_\_\_\_ connections. | 1 |
| 4. | \_\_\_\_\_\_\_\_\_\_ is the network entity that satisfies HTTP request on behalf of an origin web server. | 1 |
| 5. | The UDP header size is of \_\_\_\_\_\_\_\_\_\_ bytes. | 1 |
| 6. | The internet’s network layer provides a single service, known as \_\_\_\_\_\_\_\_\_\_. | 1 |
| 7. | Size of IPV6 address is \_\_\_\_\_\_\_\_\_\_ bits. | 1 |
| 8. | The Class C subnet mask is \_\_\_\_\_\_\_\_\_\_. | 1 |
| 9. | The protocol that maps the IP address to that of the MAC address is \_\_\_\_\_\_\_\_\_\_. | 1 |
| 10. | A \_\_\_\_\_\_\_\_\_\_ is a physical device that acts on individual bits rather than on frames. | 1 |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11. | List the five layers of TCP/IP protocol suite. | 3 |
| 12. | What are the two querying techniques in DNS? | 3 |
| 13. | Sketch the UDP Header structure. | 3 |
| 14. | What are the private IP address spaces? | 3 |
| 15. | Why would the token ring protocol be inefficient if a LAN has a very large perimeter? | 3 |

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| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. | a. | List five task that the layers of TCP/IP suite can perform. | 8 |
| b. | Discuss about the various delays in the internet. | 7 |
| (OR) | | | |
| 17. |  | Discuss about Wi Fi wireless Internet access and 4G wireless Internet access in terms of the following parameters.  a. Cost.  b. Bit rates.  c. Roaming and access ubiquity.  d. Scalability.  e. Infrastructure. | 15 |
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| 18. |  | Consider an e-commerce site that wants to keep a purchase record for each of its customers. Describe how this can be done with cookies. | 15 |
| (OR) | | | |
| 19. | a. | With neat sketch explain the working of Simple mail transfer protocol. | 8 |
| b. | List various services and records of the DNS. | 7 |
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| 20. |  | Explain the TCP header structure. | 15 |
| (OR) | | | |
| 21. | a. | Consider streaming stored audio. Does it make sense to run the application over UDP or TCP? Which transport protocol does Real Networks use? Why? | 8 |
| b. | How do TCP enforce flow control? | 7 |
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| 22. | a. | Differentiate Link State and distance vector routing protocols. | 5 |
| b. | Draw and Explain the architecture of a Router. | 10 |
| (OR) | | | |
| 23. |  | Explain IPv4 header structure. | 15 |
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| 24. |  | Explain various error correction and detection techniques in link layer. | 15 |
| (OR) | | | |
| 25. | a. | Compare the working of a Hub and Switch. | 5 |
| b. | Suppose the information content of a packet is the bit pattern 1010101010101011 and an even parity scheme is being used. What would be the value of the checksum field for the case of two dimensional parity scheme? | 5 |
| c. | List various multiple access protocols in link layer. | 5 |