15 MAR 2019 M.Sc. (IT) Semester – 3

Code: 3598

Time: 02:30 Hours

Paper 9: Data Communication and Network

Total Marks: 70

| Q-1 | Answer the following question | |
|-----|---|----|
| Α | What is computer network? What is internet? Give brief explanation. | 07 |
| В | Write a note on layered architecture of internet. | 07 |
| | OR | |
| Α | What is protocol? Explain any five protocols with example. | 07 |
| В | Give detail introduction of Internet. | 07 |
| Q-2 | Answer the following question | |
| Α | Explain socket programming with a suitable example. | 07 |
| В | Differentiate : HTTP and DNS. | 07 |
| | OR | |
| Α | Discuss various protocols associated with application layer in brief. | 07 |
| В | Explain the terms: HTTP, FTP, SMTP and DNS. | 07 |
| Q-3 | Answer the following question | |
| Α | Write a note on : transport layer. | 07 |
| В | Explain congestion control in detail. | 07 |
| | OR | |
| Α | Write a note on TCP. | 07 |
| В | Explain protocols bound with transport layer. | 07 |
| Q-4 | Answer the following question | |
| Α | What is LAN? Explain LAN addressing. | 07 |
| В | Explain the terms : Routing, ARP and PPP in detail. | 07 |
| | OR | |
| Α | Discuss Network layer of OSI reference model in brief. | 07 |
| В | What is routing? Explain routing algorithm in detail. | 07 |
| Q-5 | Answer the following question | |
| Α | Discuss types of security necessary for network. | 07 |
| В | What is network management? Discuss some of the applications of | 07 |
| | network management. | |
| | OR | |
| Α | Why network management is needed? Who needs it? Why? | 07 |
| В | What is network security? Why is it essential to secure any of the network? | 07 |