# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

## End Semester Examination

May 2018

**Max. Marks: 100** | **Duration: 3 Hrs**

**Class: FYMCA** | **Semester:II**

**Course Code: MCA22** | **Branch : MCA**

**Name of the Course: Computer Networks**

**Instruction:**

**(1) All questions are compulsory**

**(2) Draw neat diagrams**

**(3) Assume suitable data if necessary**

| Q No. | Question | Max. Marks | CO |
|---|---|---|---|
| Q.1 A) | Compare Shannon and Nyquist Theorem with help of an example | 10 | CO1 |
| Q.1 B) | Illustrate various transmission impairments | 10 | CO1 |
| Q.2 A) | List different types of Email protocol and explain in brief any one | 10 | CO3 |
| Q.2 B) | Explain four way handshake protocol | 10 | CO3 |
| Q. 3 A) | A block of addresses is granted to a small organization. We know that one of the addresses is 205.16.37.39/28. 1. What is the first and the last address in the block 2. Find the number of addresses? | 10 | CO3 |
| | **OR** | | |
| Q. 3 A) | Summarize the use of Internet Group Management Protocol | 10 | CO3 |
| Q.3 B) | Demonstrate the working of open shortest path first with an example | 10 | CO4 |
| | **OR** | | |
| Q. 3 B) | Demonstrate the working of spanning-tree with an example | 10 | CO4 |
| Q.4 A) | Outline the structure of TCP segment and UDP segment | 10 | CO3 |
| Q.4 B) | Interpret the different ways of translating IPv4 to IPv6 | 10 | CO3 |
| Q.5 A) | Illustrate the working of Stop n Wait ARQ protocol . | 10 | CO3 |
| | **OR** | | |
| Q.5 A) | Illustrate the working of Go n Back ARQ protocol | 10 | CO3 |
| Q.5 B) | Explain any two different wired media | 10 | CO2 |
| | **OR** | | |
| Q.5 B) | Explain any two different wireless media | 10 | CO2 |