

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(First Semester)

Branch - APPLIED ELECTRONICS

**COMMUNICATION PROTOCOLS**

Time : Three Hours

Maximum : 75 Marks

**SECTION -A (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 1 a Explain the network architecture based on OSI reference model.  
OR  
b Describe the functions of the data link layer.
- 2 a Write a brief note on serial communication protocols.  
OR  
b Explain the features of serial peripheral interface.
- 3 a List the features of LANs.  
OR  
b What is Token passing? Explain.
- 4 a Differentiate Fast Ethernet and Gigabit Ethernet. .  
OR  
b With a neat sketch, explain the term : Token ring.
- 5 a Explain the address structure and major features of IP.  
OR  
b Write a note on (i) e-mail and (ii) HTTP.

**SECTION -B (45 Marks!)**

Answer any THREE questions

ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 Give detail account on Bus, Star and Ring network topologies.
- 7 With suitable sketches, explain ISA / PCI Bus protocols.
- 8 Explain in detail, the frame format of IEEE 802.3 and IEEE 802.5 standards.
- 9 Discuss the functions and importances of  
(i) Hubs (ii) Bridges and (iii) Routers
- 10 Explain in detail, the layers and operations of TCP/IP with example.