PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2022
(Fourth Semester)

Branch – COMPUTER TECHNOLOGY

DATA COMMUNICATIONS AND NETWORKING

Time: Three Hours   Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (10 x 1 = 10)

1   Which of these is a standard interface for serial data transmission?
    (i) ASCII   (ii) RS232C.
    (iii) Z   (iv) centronics

2   How many levels of addressing are found in TCP/IP ?
    (i) one   (ii) two
    (iii) three   (iv) four

3   Which of the following is not a phase of virtual circuit network?
    (i) setup phase   (ii) data transfer phase
    (iii)termination phase   (iv) tear down phase

4   Which multiplexing technique used to transmit digital signals?
    (i) TDM   (ii) FDM
    (iii)WDM   (iv) FDM & WDM

5   The data section of the frame has an extra byte is called _____
    (i) bit stuffing   (ii) byte stuffing
    (iii) escape charter   (iv) number stuffing

6   A simple parity-check code can detected _____ errors
    (i) an even number of   (ii) two
    (iii) no error   (iv) an odd number of

7   Which one of the following is the most common internet protocol?
    (i) HTML   (ii) NetBean
    (iii) TCP/IP   (iv) IPX/SPX

8   The relationship in multicast communication is _____
    (i) one to one   (ii) one to many
    (iii) many to one   (iv) many to many

9   Closed-loop control mechanisms try to _____
    (i) remove after congestion occurs   (ii) remove after some time
    (iii) prevent before congestion occurs   (iv) prevent before sending packets

10 FTP is built on _____ architecture
    (i) client/server   (ii) p2p
    (iii)data centric   (iv) service oriented

SECTION - B (25 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 5 = 25)

11   a   Write a short note on digital signal.
(OR)
   b   Explain TCP/IP protocol site.

12   a   Bring out the features unguided media.
(OR)
   b   Sketch on TDM.

13   a   Write about the standard Ethernet.
(OR)
   b   Discuss Mechanism error control.

14   a   Explain the transport services.
(OR)
   b   Discuss the addressing concepts in Network layer.

15   a   Explain electronic mail.
(OR)
   b   Discuss on DNS.

SECTION -C (40 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 8 = 40)

16   a   Analyse the OSI layer in detail.
OR
   b   Differentiate the process between data and signals in physical layer.

17   a   Explain & Differentiate FDM & WDM.
(OR)
   b   Point out the features in switching and its types.

18   a   Highlight block coding & cyclic coding.
(OR)
   b   Justify the flow control procedure in detail.

19   a   Summaries broad-cast routing in detail.
(OR)
   b   Examine how distance vector routing finds the path.

20   a   Summarize Cryptography.
(OR)
   b   Highlight the features of HTTP & SNHP.

Z-Z-Z   END