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Shree Damodar College of Commerce & Economics, Margao-Goa
SY BCA Semester-IV Supplementary Examination August 2022
Data Communications (CAC-114)

Duration: 2 Hours**Max Marks: 60**

Instructions: i) *All Questions are compulsory*
 ii) *Figures to the right indicate full marks*

Q.1 A) Expand the following Acronyms.

(5x1=05)

- i) ICMP
- ii) FTP
- iii) ARP
- iv) TCP
- v) SMTP

Q.1 (B) Define the purpose of the following in not more than 20 words.

(5x1=05)

- i) Feedback based flow control
- ii) Local Area Network(LAN)
- iii) Encapsulation
- iv) Congestion Control in Transport Layer
- v) Domain Name System (DNS)

Q.2 Answer the following:

- (a) Give a point of difference between MAN and WAN.
- (b) Describe Flow Control in Data link Layer.
- (c) Explain Star topology with a neat diagram.

(2)
(3)
(5)

Q.3. Answer the following:

- (a) State the benefits of Optical fibre.
- (b) Explain the Transmission impairments.
- (c) List and explain the common characteristics of Line coding.

(2)
(3)
(5)

Q.4. Answer the following:

- (a) Explain Subnetting & Supernetting (under Classful Addressing).
- (b) Compare and contrast between TCP/IP and OSI model.
- (c) Illustrate TCP segment along with a neat labelled diagram of TCP segment format.

(2)
(3)
(5)

Q.5. Answer the following:

- (a) List any four functions of Transport Layer.
- (b) Perform the following conversions on the given IP address

(2)
(3)

i) Convert from binary to dotted decimal notation	10000001 00001011 00001011 11101111
ii) Convert from dotted decimal to binary	111.56.45.78

(c) Explain various wireless propagations encountered in modern day communication with the help of neat diagrams. (5)

Q.6. Answer the following.

(a) State the components of Data Communication. (2)

(b) Explain User Datagram Protocol (UDP). (3)

(c) Describe Classfull addressing and solve the following: (5)

Find the classes of each addresses:

i) 00000001 00001011 00001011 11101111

ii) 11000001 10000011 00011011 11111111

iii) 14.23.120.8

iv) 252.5.15.111

END
