

S.No. : 123

BCACS1203

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 16408

Roll
No.

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B. C. A. Examination 2021-22

(Even Semester)

COMPUTER NETWORKS AND SECURITY

Time : Three Hours]

[Maximum Marks : 60

Note :- Attempt all questions.

SECTION – A

1. Attempt all parts of the following : 1 × 8 = 8

- (a) What do you mean by multiplexing?
- (b) What is the purpose of cladding in an optical fibre?
- (c) Write two network devices.
- (d) Write the full form of HDLC.

[P. T. O.]

- (e) Which layer is responsible for reliable connection?
- (f) Explain the two functions of network layer.
- (g) Explain firewall.
- (h) What is the difference between HTTP and HTTPS?

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$

- (a) Explain OSI model.
- (b) What do you mean by CSMA/CD and CSMA/CA network protocol?
- (c) Differentiate between IPV4 and IPV6.
- (d) What are the responsibilities of the transport layer in OSI model?

SECTION – C

Note:- Attempt any two parts from each question. Each part carry equal marks. $8 \times 5 = 40$

3. (a) What is switched and broadcast network.
(b) Explain the term steganography and obfuscation.
(c) What is the difference between half duplex and full duplex transmission modes with its diagram?
4. (a) What do you mean by standard? Explain IEEE standard.
(b) Write the various functioning of data link layer.
(c) Compare and contrast Go-Back-N and Stop-and-wait protocol.
5. (a) Define fragmentation and explain why the IPV4 and IPV6 need to fragment same packets.
(b) What is routing protocols. Define its type also.
(c) Differentiate between logical and physical address.
6. (a) Explain the term TCP and UDP.
(b) Write short note on any two :
 - (i) FTP

(ii) SMTP

(iii) TELNET

(c) Explain different functions of transport layer and session layer.
