Total number of printed pages-7

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## 2022

## COMPUTER SCIENCE

(Honours)

Paper : CSC-HC-3036

(Computer Networks)

Full Marks : 60

Time : Three hours

## The figures in the margin indicate full marks for the questions.

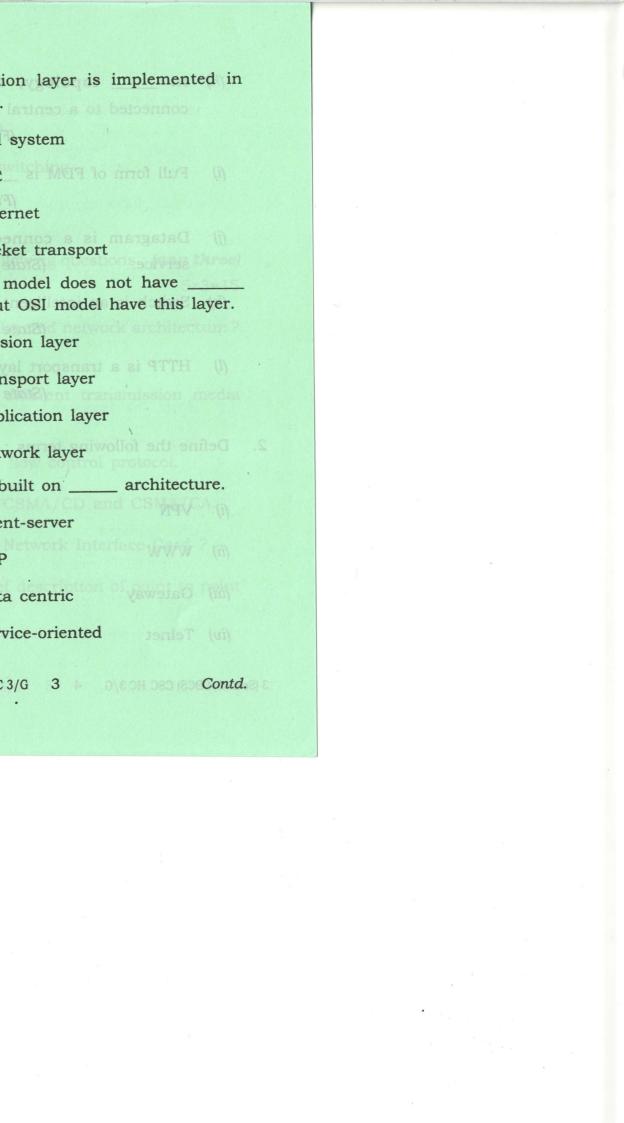
- 1. Choose the correct answer of the following questions : (any seven) 1×7=7
  - (a) The physical layer is responsible for
    - (i) line coding
    - (ii) channel coding
    - (iii) modulation coding
    - (iv) All of the above

Contd.



	Which of the following task is not done by data link layer ?	e (e) e	Application layer is implemented
	(i) Framing		(i) end system
	<ul><li>(ii) Error control</li><li>(iii) Flow control</li></ul>		(ii) NIC
	(iv) Channel coding		(iv) packet transport
(c)	The network layer protocol for internet is	(f)	TCP/IP model does not have layer but OSI model have this laye
	(i) ethernet	Fátse)	(i) session layer
	(ii) internet protocol	ol.	(ii) transport layer
	(iii) hypertext transfer protocol	rause)	(iii) application layer
	(iv) file transfer protocol	1	(iv) network layer
(d)	Which of the following are transport layer protocols used in networking ?	(g)	FTP is built on architecture.
de lor	(i) TCP and FTP		(i) client-server
	(ii) UDP and HTTP		(ii) P2P
	(iii) TCP and UDP		(iii) data centric
	(iv) HTTP and FTP		(iv) service-oriented
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(h) In \_\_\_\_\_ topology, every host is connected to a central hub.

(Fill in the blank)

- (i) Full form of FDM is \_\_\_\_\_. (Fill in the blank)
- (j) Datagram is a connection oriented service. (State True or False)
- (k) Switch is an intelligent hub.(State True or False)
- (l) HTTP is a transport layer protocol. (State True or False)
- 2. Define the following terms : (any four) 2×4=8
  - (i) VPN
    (ii) WWW
    (iii) Gateway
  - (iv) Telnet
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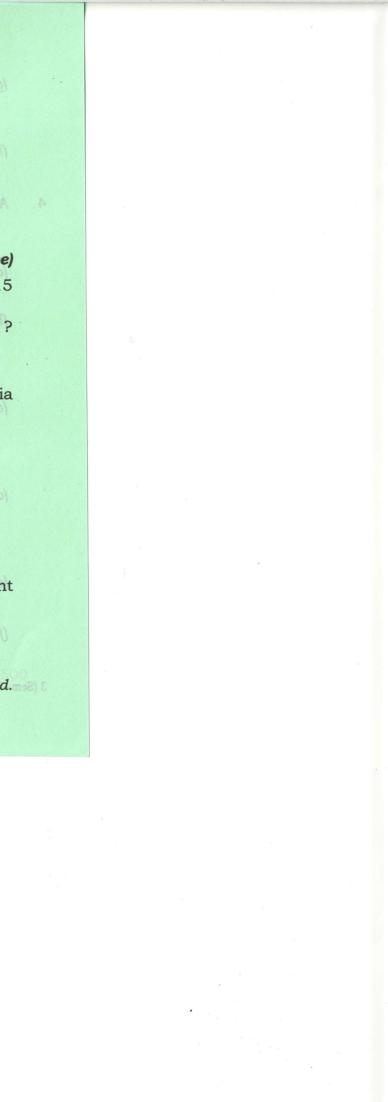
(v) SMTP nongroup land and ()
(vi) Firewalls
(vii) Circuit switching
(viii) Ethernet Tollanup aniwollol odi towanA 08-8×01
Answer the following questions : (any three)
5×3=15

3.

- (a) What is layered network architecture? Explain.
- (b) Discuss different transmission media devices.
- (c) Describe flow control protocol.
- (d) Discuss CSMA/CD and CSMA/CA.
- (e) What is Network Interface Card ?
- (f) Give brief description of point to point protocol.

Discuss the error control protocol

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- (g) Give brief description of a error detection technique.
- (h) Explain the functions of transport layer.
- 4. Answer the following questions : **(any three)** 10×3=30
  - (a) Write the IP addressing methods.
  - (b) Explain virtual circuits and datagram approach.
  - (c) State the transport layer protocols of
    - TCP and UDP.
  - (d) Describe the application layer protocols

and services.

- (e) What is virtual private networks?
- (f) Discuss the error control protocol.

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- (g) Explain Go-Back-N ARQ protocol.
- (h) Write short notes on :
  - (i) Virtual circuit switching
  - (ii) DNS protocol

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