

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2023-24 ONLY)

SUBJECT CODE 23UBC5E1

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**  
**END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2025**

**B.C.A**

**MAXIMUM MARKS: 75**

**SEMESTER: V**

**TIME : 3 HOURS**

**PART – III**

**NETWORKS**

**SECTION – A (10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**K1**

1. What is the full form of OSI?  
a) optical service implementation                      b) open service Internet  
c) open system interconnection                      d) operating system interface
2. Which layer of the OSI model is associated with error detection and correction?  
a) Network Layer                      b) Transport Layer  
c) Data Link Layer                      d) Application Layer
3. Which layer of the OSI model handles data encryption?  
a) Physical Layer                      b) Network Layer  
c) Transport Layer                      d) Presentation Layer
4. What is the primary function of a router?  
a) To connect devices within the same network                      b) To manage network traffic  
c) To route data between different networks                      d) To amplify signals
5. Which protocol is used to send email?  
a) HTTP                      b) FTP                      c) SMTP                      d) SNMP

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**K2**

6. Define computer network.
7. What is guided media?
8. What is TCP/IP?
9. What do you mean as Authentication?
10. What is DNS?

**SECTION – B (5 X 5 = 25 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. K3**

11. a) What are the design Issues in the layers?.

**(OR)**

- b) Differentiate between Connection-oriented and connectionless services.

12. a) Explain the concept of Satellites communication.

**(OR)**

- b) Explain - how sliding window protocol works?

**(CONTD.....2)**

- 13.a) Draw IPV4 packet format and explain.  
(OR)  
b) Write a short note about the Quality of Service.
- 14.a) Explain session protocol data unit.  
(OR)  
b) Explain - how encryption and decryption work?
- 15.a) Write a short note about HTTP.  
(OR)  
b) Describe the significance of Telnet.

**SECTION – C****(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

16. a) Explain LAN– WAN – MAN with an example.  
(OR)  
b) Explain the functions of various layers in ISO-OSI reference model
- 17.a) Explain the Guided Transmission Media.  
(OR)  
b) What are the Types of Wireless Transmission Media? Explain it
18. a) Explain the routing functionality of Routing algorithms.  
(OR)  
b) Assess the responsibilities of Transport Layer with its protocols?
19. a) Discuss in detail synchronization in session layer.  
(OR)  
b) Discuss the important characteristics of data compression.
- 20.a) Elaborate - how E mail works?  
(OR)  
b) State the causes and consequences of Network and give the significance of Security