

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE					
Supplementary Winter Examination – 2025					
Course: BTECH		Branch : COMP/CSE		Semester : VI	
Subject Code & Name: BTCOC602 Computer Networks					
Max Marks: 60		Date: 12/01/2026		Duration: 3 Hr.	
Instructions to the Students: 1. Each question carries 12 marks. 2. Question No. 1 will be compulsory and include objective-type questions. 3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6. 4. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question. 5. Use of non-programmable scientific calculators is allowed. 6. Assume suitable data wherever necessary and mention it clearly.					
				(Level/CO)	Marks
Q. 1	Objective type questions. (Compulsory Question)				12
1	A computer network is mainly used for:				1
	a. Data storage	b. Resource sharing	c. Program execution		
2	Connection-oriented service is best represented by:				1
	a. UDP	b. IP	c. TCP		
3	TCP/IP model consists of:				1
	a. 7 layers	b. 5 layers	c. 4 layers		
4	Wi-Fi standard belongs to:				1
	a. 802.3	b. 802.5	c. 802.11		
5	Bluetooth standard is:				1
	a. 802.11	b. 802.15.1	c. 802.16		
6	Frame Relay operates at:				1
	a. Physical layer	b. Data link layer	c. Network layer		
7	Flow control ensures:				1
	a. Error-free transmission	b. Sender does not overwhelm receiver	c. Faster transmission		
8	Routers operate mainly at:				1

	a. Data link layer	b. Network layer	c.Transport layer	d. Application layer		
9	UDP is:					1
	a. Reliable	b. Connection-oriented	c. Connectionless	d. Secure		
10	POP protocol is mainly for:					1
	a. Sending mail	b. Receiving mail	c. File upload	d. Web browsing		
11	Public key cryptography uses:					1
	a. One shared key	b. Two keys	c. No key	d. Password only		
12	Firewalls are used to:					1
	a. Increase bandwidth	b. Control network access	c. Detect errors	d. Speed transmission		
Q. 2	Solve the following.					12
A)	Explain applications of computer networks in detail.					6
B)	Explain TCP/IP reference model and compare it with OSI model.					6
Q.3	Solve the following.					12
A)	Explain Ethernet architecture and working.					6
B)	Explain wireless LAN technologies: Wi-Fi and Wi-MAX.					6
Q. 4	Solve Any Two of the following.					12
A)	Explain Data Link Layer design issues in detail.					6
B)	Explain framing, flow control and error control.					6
C)	Compare error detecting codes and error correcting codes.					6
Q.5	Solve Any Two of the following.					12
A)	Explain routing algorithms: distance vector and link state.					6
B)	Explain TCP and UDP with comparison.					6
C)	Explain Quality of Service (QoS) and its components.					6

Q. 6	Solve Any Two of the following.		12
A)	Explain DNS and HTTP in detail.		6
B)	Explain network security concepts and authentication.		6
C)	Explain digital signatures, certificates and firewalls in detail.		6
	*** End ***		