

17662

15162

3 Hours / 100 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) **Attempt any THREE :** **12**
- (a) Explain Data transmission rate and Bandwidth.
 - (b) Differentiate between TDM and FDM.
 - (c) Describe TCP/IP protocol.
 - (d) Explain sliding window method with diagram.
- (B) **Attempt any ONE :** **6**
- (a) Explain optical fibre communication system with its block diagram.
 - (b) Describe different layers in ATM.
2. **Attempt any TWO :** **16**
- (a) Describe cyclic redundancy check with an example.
 - (b) Explain the procedure of construction of optical fibre. What are the modes in which a signal transmission takes place in a fibre ?
 - (c) Draw the architecture of Bluetooth. Explain in details, the layers in Bluetooth.

- 3. Attempt any FOUR :** **16**
- (a) Explain modulator and demodulator.
 - (b) Compare analog and digital signals.
 - (c) Explain TFTP protocol.
 - (d) Describe classification of errors.
 - (e) List standard organisation and explain any one in detail.
- 4. (A) Attempt any THREE :** **12**
- (a) Define amplitude, period, phase and frequency.
 - (b) Explain DCF and PCF in MAC layer.
 - (c) Describe refraction and reflection.
 - (d) Explain Hamming code with example.
- (B) Attempt any ONE :** **6**
- (a) Describe ARP and RARP protocol.
 - (b) Explain simplex, half duplex and full duplex data transmission.
- 5. Attempt any TWO :** **16**
- (a) Explain synchronous and asynchronous transmission with its two advantages and two disadvantages.
 - (b) Describe DNS and Telnet.
 - (c) Draw and explain the architecture of IEEE 802.11 (WLAN).
- 6. Attempt any FOUR :** **16**
- (a) Explain light sources used in fibre optic communication.
 - (b) Explain Asynchronous Transfer Mode (ATM) with its advantages.
 - (c) Describe SONET in details.
 - (d) List any four advantages of LASER.
 - (e) Explain stop and wait method with diagram.
-