

(3 Hrs)

Total Marks: 80

- N. B. 1. Question No 1 is compulsory.
2. Solve any three from remaining.

- Q 1 Answer any four : 20
- (a) What is the need for Wireless Sensor network? Explain the WSN Protocol stack.
 - (b) Explain the need for DWDM. Compare it with WDM.
 - (c) "AAL 5 is a widely used ATM adaptation layer protocol": justify with
 - (i) Mention the main functions of AAL
 - (ii) Name practical Examples that use services of AAL5.
 - (d) Draw and explain different states of Bluetooth enabled device.
 - (e) What are the different network security threats and safeguards? Explain.
- Q 2 (a) Draw and explain Bluetooth protocol stack in detail. 10
- (b) Compare Ubiquitous and hierarchical access in Access Network design. Explain the steps for completing access layer design in detail. 10
- Q 3 (a) In frame relay frame format, which bit is used to avoid network congestion? Draw and explain frame format of Frame relay. 10
- (b) Bring out the advantages of Optical networking. With a neat sketch, explain the SONET hardware components along with its functional layers. 10
- Q 4 (a) What is a firewall? What are the capabilities and limitations of firewall? Discuss the different types of firewalls, along with their advantages and disadvantages. 10
- (b) With reference to ATM : 10
- (i) Explain ATM Protocol architecture, bringing out the functions of ATM layer.
 - (ii) Compare the following ATM Adaptation Layer Protocols : AAL1, AAL2, AAL3/4, AAL5.
- Q 5 (a) Draw and explain (i) IEEE 802.15.3 LR-WPAN Device architecture. 10
- (ii) ZigBee technology
- (b) Write short notes on : (i) B-ISDN model of ATM (ii) UWB 10
- Q6 Write a short note on :. (Any four) 20
- (a) DMZ.
 - (b) SNMP
 - (c) RFID.
 - (d) RMON.
 - (e) VOFR