

[Time : 3 Hours]

[Marks : 80]

Please check whether you have got the right question paper.

- N.B:
1. Question **No.1** is **compulsory**.
 2. Solve any **three** questions from remaining **five** questions.
 3. **Draw** neat **diagrams** and assume suitable data wherever necessary. Justify your assumptions.
 4. **Figures** to the **right** indicate full **marks**.

1. Solve any **four** **20**
 - a) What is the need of DWDM ? Brief working principle.
 - b) In ATM, what is difference between UNI & NNI? Explain frame format.
 - c) How SNAT works in network security?
 - d) Explain the need of WSN ? Explain different components used in WSN.
 - e) How zigbee Technology works? How is it better than Blue tooth?
2.
 - a) Which bit of frame relay frame format is used to avoid congestion in network? Draw and explain Frame format of Frame Relay. **10**
 - b) How firewall helps to provide security? Explain any 2 types of firewall along with Limitations and advantages. **10**
3.
 - a) How to provide security to network? Explain with different security safeguards and threats. **10**
 - b) Describe Bluetooth protocol stack in detail along with neat diagram. **10**
4.
 - a) Briefly explain functions of all ATM adaptation Layer Protocols. **10**
 - b) What is the difference between ubiquitous access and hierarchical access? **10**
5.
 - a) Classify SNMP w.r.t. network management. **10**
 - b) Give explanation of different Traffic Descriptor and parameters w.r.t. ATM. **10**
6. Write short notes on any **four** **20**
 - a) OAMP w.r.t network management
 - b) Function of VPI & VCI in ATM
 - c) SONET Frame format
 - d) SNAT & DNAT
 - e) Rmon