C09–EC–**606A**

3762

BOARD DIPLOMA EXAMINATION, (C–09) OCT/NOV—2018
DECE—SIXTH SEMESTER EXAMINATION

DATA COMMUNICATION AND
COMPUTER NETWORKS
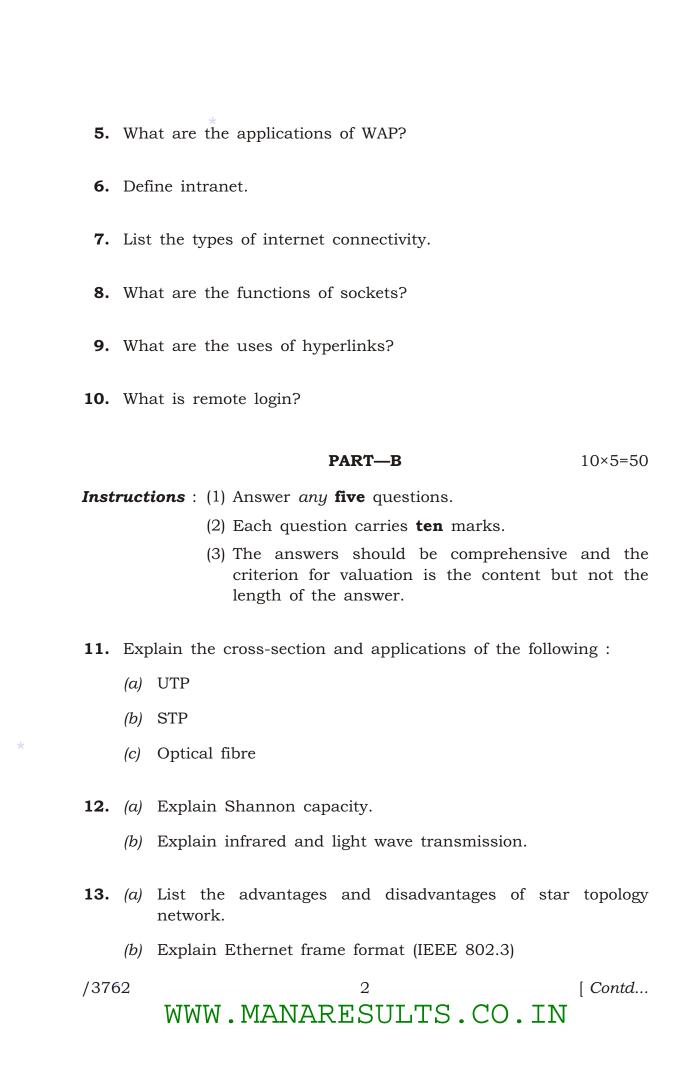
Time : 3 hours]   [*Total Marks* : 80

PART—A   3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. What is the need for data communication networking?

2. Define the following :

(a) Simplex

(b) Half duplex

(c) Full duplex communication

3. Draw the OSI 7 layer model.

4. List the network topologies.

5. What are the applications of WAP?

6. Define intranet.

7. List the types of internet connectivity.

8. What are the functions of sockets?

9. What are the uses of hyperlinks?

10. What is remote login?

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PART—B 10×5=50

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Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the cross-section and applications of the following :

(a) UTP

(b) STP

(c) Optical fibre

12. *(a)* Explain Shannon capacity.

(b) Explain infrared and light wave transmission.

13. *(a)* List the advantages and disadvantages of star topology network.

(b) Explain Ethernet frame format (IEEE 802.3)

14. *(a)* Explain CSMA protocol.

    (b) Explain the packet switching mechanism.

15. *(a)* Write any two features of TCP.

    (b) Explain the internal architecture of ISP.

16. *(a)* Explain the DSL type of internet connectivity.

    (b) Explain the point-to-point protocol.

17. Explain in detail how e-mail is transferred.

18. *(a)* Explain the DNS name space.

    (b) List any four hHP commands.

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