



- (ii)  $(111011010)_2 = (?)_8$
- (iii)  $(96)_{10} = (?)_2$
- (iv)  $(111.01)_2 = (?)_{10}$
- (v)  $(462)_8 = (?)_{16}$  (10)
3. (a) What is multimedia computer system ? What are its typical characteristics ?
- (b) What is internetworking ? Explain the difference between bridge, router and gateway. (5+5)
4. (a) What is a WWW browser ? What types of navigation facilities are supported by modern browsers to help users save time while internet surfing ?
- (b) What is an input interface ? How does it differ from output interface ? (5+5)
5. (a) Perform the following operations
- (i) Add  $(1010110)_2$  and  $(0011010)_2$
- (ii) Subtract  $(011011)_2$  from  $(110111)_2$
- (b) Why was Unicode developed ? List some of its key features. (6+4)
6. (a) What is an Algorithm ? What are the various ways to represent it ?
- (b) Write an algorithm that calculates the sum of any 10 numbers. (6+4)
7. (a) Why are first and second generation computers more difficult and costlier to produce commercially than computers of subsequent generations ?
- (b) Differentiate between impact and non-impact printers. List key features of laser printers. (5+5)
8. Write short notes (any **four**) :
- (a) Multimedia
- (b) Hand-held computers
- (c) Client-Server architecture.
- (d) Network types
- (e) Mainframes (10)