

CSE-103

Subject: Assignment from Book.

Chapter no.:1

Section no.:1

Exercise no.: 44

Student Id: **1705074**Verifying Student Id: **1705025****44.** Evaluate each of these expressions.

a) $1\ 1000 \wedge (0\ 1011 \vee 1\ 1011)$

b) $(0\ 1111 \wedge 1\ 0101) \vee 0\ 1000$

c) $(0\ 1010 \oplus 1\ 1011) \oplus 0\ 1000$

d) $(1\ 1011 \vee 0\ 1010) \wedge (1\ 0001 \vee 1\ 1011)$

Answers:**a)**

$$(0\ 1011 \vee 1\ 1011) = 1\ 1011$$

$$1\ 1000 \wedge 1\ 1011 = 1\ 1000$$

Result : 1 1000**b)**

$$(0\ 1111 \wedge 1\ 0101) = 0\ 0101$$

$$0\ 0101 \vee 0\ 1000 = 0\ 1101$$

Result : 0 1101**c)**

$$(0\ 1010 \oplus 1\ 1011) = 1\ 0001$$

$$1\ 0001 \oplus 0\ 1000 = 1\ 1001$$

Result : 1 1001**d)**

$$(1\ 1011 \vee 0\ 1010) = 1\ 1011$$

$$(1\ 0001 \vee 1\ 1011) = 1\ 1011$$

$$1\ 1011 \wedge 1\ 1011 = 1\ 1011$$

Result : 1 1011