

## Quiz 6 (BCS-4H)

### Solution

**Q1:**

System: 16 bit

RAM: 128 MB

Page Size: 4096 bytes

**a) Logical address (p,d)**

$d = \text{pagesize} = 4096 \text{ bytes} = 2^{12} \text{ (12 bits)}$

$p = 16 - 12 = 4$

Logical address-16 bits (4,12)

**b) Physical address (f,d)**

$d = 12 \text{ bits (framesize=pagesize)}$

$\text{RAM} = 128 \text{ MB} = 2^7 * 2^{20} = 2^{27} \text{ (27 bits)} \rightarrow \text{size of physical address}$

$f = 27 - 12 = 15$

Physical address-25bits (15,12)

**c) Page table entries**

No of Pages =  $2^p = 2^4 = 16$

**d) Page No of 1011101110101010**

Considering first 4 bits only =  $1011 = 11$