**C5 Sprint 2 Practice Brief:**

**TASK 1**

**Answer:**

**(a).**

**As there are group of 10 people (6 men and 4 women), so for selecting 3 men and 2 women from group of 10 people we can apply the combination formula for fetching the  
right output i.e;  
  
ncr = n!/(r!(n-r)!)  
  
6c3 = 6\*4\*3\*2\*1(3\*2\*1(3!)) = 20  
4c2 = 4\*3\*2\*1/(2\*1(2!)) = 6**

**So therefore, 6c3 \* 4c2 = 20\*6 = 120  
  
(b).**

**6c5 = 654321/(54321(1!)) = 6  
  
(c).**

**6c1 = 654321/(1(5!)) = 6  
4c4 = 4321/(24(0!)) = 1  
  
6c2 = 654321/(2(4!)) = 15  
4c3 = 4321/(6(1!)) = 4  
  
so therefore, 6c1\*4c4 + 6c2\*4c3 = 66 (Option 2nd )**

**TASK 2**

**Answer:**

**52c5 = 52\*51\*50\*49………..1/(120(47!)) = 2598960 (Option 3rd )**

**TASK 3**

**Answer:**

**Here out of 8 contestants…….**

**1st Gold Medal:**

**8c1 = 87654321/(1(7!)) = 8**

**Now the remaining contestants after the Gold Medalist are 7 for Silver & Bronze…….**

**2nd Silver Medal:**

**7c1 = 7654321/(1(6!)) = 7**

**Now the remaining contestants after Silver Medalist are 6 for Bronze**

**3rd Bronze Medal:**

**6c1 = 654321/1(5!)) = 6**

**So therefore,  
8c1\*7c1\*6c1 = 8\*7\*6 = 336 (Option 2nd )**

**TASK 4**

**TASK 5**

**TASK 6**

**Answer:**

**7c3 \*4c2 \*5! = 35\*6\*120 = 25200  
First out of 7 consunants ; 3 consunants are considered (7c3)  
After that out of 4 vowels 2 vowels are considered  
“Thus created a 5 letter word”  
This word again can be of any sequence or of different probability with regarding its order or combination with different meaning.So the now for this word “5!” is considered.**

**TASK 7**

**Here,  
As Eva is already a member of the committee (Ava is excluded):**

**11c5 = 11\*10\*9…….1/(120(6!)) = 330**

**TASK 8**

**TASK 9**