**Questions**

1. OS\_TASKCNT

2. Active task pointers to active running Task Control Blocks (TCB)

3. os\_idle\_TCB

4. No

5. n-1

6. i) p\_lnk: Link pointer for ready/sem. wait list

ii) tsk\_stack: Current task Stack pointer (R13)

stack: Pointer to Task Stack memory block

iii) Yes, since both OS\_XCB and OS\_TCB have the same p\_link field

7. mp\_tcb: memory pointer pointing to the location of the memory pool for task control blocks in the processor’s memory (Flash/RAM)

mp\_stk: memory pointer pointing to the location of the memory pool for System stack residing in the computer’s memory (Flash/RAM)

8. i) Stack pointer and R0

ii) Bits 15 to 2 [shift right 2 bits, 14 significant bits remain in b13~0, so b15~2 = 14 bits]

iii) tsk\_stack (current stack pointer) + priv\_stack (used stack size) [i.e. Pointer to Task Stack memory block + stack size since stack is full descending => address of first item > address of last item]

iv) not RUNNING: call the field tsk\_stack in an idle task’s OS\_TCB struct

v) RUNNING: call the utility function rt\_get\_PSP()