Computer Architecture Solutions

1. In the real mode, show the starting and ending addresses of each segment located by the following segment register values

SEGMENT RES	STARTING	ENDING
1000H	10000H	1FFFFH
1234H	12340H	2233FH
2300H	23000H	32FFFH
E000H	E0000H	EFFFFH
AB00H	AB000H	BAFFFH

2. Determine the memory location addressed by the following real mode Core2 register combinations

Segment * 10H +Offset

DS	2000H	EAX	00003000H	00023000H
DS	1A00H	ECX	00002000H	0001C000H
DS	C000H	ESI	0000A000H	000CA000H
SS	8000H	ESP	00009000H	00089000H
DS	1239H	EDX	0000A900H	001CC90H

3. If the DS register contains 0020H in a protected mode system, which global descriptor table entry is accessed?

The value inside of DS indicates that which order

0020 => 4