

# ELEC211 - Microprocessor Systems part

## Open-book exam simulation 19-20 – Numerical Answers

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<b>Q1.</b>	<p>a) i) ADDS r1, r5, r6</p> <p style="padding-left: 40px;">r1 := 0xDBE240B6</p> <p style="padding-left: 40px;">r2, r3, r4, r5, r6, r7 not changed</p> <p>ii) SUBS r2, r6, r7</p> <p style="padding-left: 40px;">r2 := 0x0650F222</p> <p style="padding-left: 40px;">r1, r3, r4, r5, r6, r7 not changed</p> <p>iii) RORS r3, r3, r7</p> <p style="padding-left: 40px;">r3 := 0x4E0621E0</p> <p style="padding-left: 40px;">r1, r2, r4, r5, r6, r7 not changed</p> <p>iv) ORRS r4, r6</p> <p style="padding-left: 40px;">r4 := 0xE3D73F2F</p> <p style="padding-left: 40px;">r1, r2, r3, r5, r6, r7 not changed</p>	<b>8</b>
b)	<p>i) 0xFFFFFFFF83</p> <p>ii) 0xB56B6BCD</p>	<b>4</b>
c)	<p>i) 0xC2CD0000</p> <p>ii) 0x41566666</p>	<b>4</b>
d)	$-20_{10}$	<b>3</b>
e)	<p>i) r2:=0x00000000</p> <p style="padding-left: 40px;">Flags N and V cleared, C and Z set.</p> <p>ii) r2:=0x80000008</p> <p style="padding-left: 40px;">Flags N and V set, C and Z cleared.</p>	<b>10</b>
		<b>Total</b>
		<b>30</b>