

ANSWER SHEET Sample Test 4

Subject: Chemistry .....

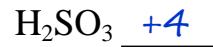
**Part A: Multiple Choice Questions**

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2	a	b	<input checked="" type="checkbox"/>	d
3	a	b	<input checked="" type="checkbox"/>	d
4	a	b	<input checked="" type="checkbox"/>	d
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8	a	<input checked="" type="checkbox"/>	c	d
9	<input checked="" type="checkbox"/>	b	c	d
10	a	<input checked="" type="checkbox"/>	c	d
11	a	b	<input checked="" type="checkbox"/>	d
12	<input checked="" type="checkbox"/>	b	c	d
13	<input checked="" type="checkbox"/>	b	c	d
14	a	b	<input checked="" type="checkbox"/>	d
15	a	<input checked="" type="checkbox"/>	c	d
16	a	b	c	<input checked="" type="checkbox"/>
17	a	<input checked="" type="checkbox"/>	c	d
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19	<input checked="" type="checkbox"/>	b	c	d
20	a	<input checked="" type="checkbox"/>	c	d

21	a	b	c	<input checked="" type="checkbox"/>
22	a	b	c	<input checked="" type="checkbox"/>
23	a	b	<input checked="" type="checkbox"/>	d
24	a	<input checked="" type="checkbox"/>	c	d
25	<input checked="" type="checkbox"/>	b	c	d
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31	a	<input checked="" type="checkbox"/>	c	d
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35	a	b	<input checked="" type="checkbox"/>	d
36	<input checked="" type="checkbox"/>	b	c	d
37	a	<input checked="" type="checkbox"/>	c	d
38	a	b	c	<input checked="" type="checkbox"/>
39	a	<input checked="" type="checkbox"/>	c	d
40	a	b	<input checked="" type="checkbox"/>	d

### **Part B: Short Answer Questions**

**1. Assign the proper oxidation state for the sulfur atom in each of the following species.**



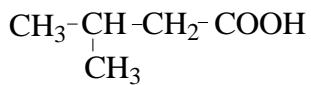
**2. The concentration of  $\text{OH}^-$  ions in an aqueous solution at room temperature ( $25^\circ\text{C}$ ) is  $1 \times 10^{-6} \text{ mol.l}^{-1}$ . What is the concentration of  $\text{H}^+$  ions?**

$$[\text{H}^+] \times [\text{OH}^-] = 1 \times 10^{-14} (\text{mol/l})^2$$

$$[\text{OH}^-] = 1 \times 10^{-6} \text{ mol/l}$$

$$[\text{H}^+] = \frac{1 \times 10^{-14}}{1 \times 10^{-6}} = 1 \times 10^{-8} \text{ mol/l}$$

**3. Give the IUPAC name of the following compound:**



*3-methylbutanoic acid*

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**4. Show the equation and name the product formed when acetaldehyde reacts with  $\text{H}_2$ .**

