MEDICAL UNIVERSITY - PLEVEN, BULGARIA

ANSWER SHEET Sample Test v.3

Subject: Chemistry

Date: ……

City: ……

Part A: Multiple Choice Questions

1	a	b	c	d
2	a	b	c	d
3	a	b	c	d
4	a	b	c	d
5	a	b	c	d
6	a	b	c	d
7	a	b	c	d
8	a	b	c	d
9	a	b	c	d
10	a	b	c	d
11	a	b	c	d
12	a	b	c	d
13	a	b	c	d
14	a	b	c	d
15	a	b	c	d
16	a	b	c	d
17	a	b	c	d
18	a	b	c	d
19	a	b	c	d
20	a	b	c	d

21	a	b	c	d
22	a	b	c	d
23	a	b	c	d
24	a	b	c	d
25	a	b	c	d
26	a	b	c	d
27	a	b	c	d
28	a	b	c	d
29	a	b	c	d
30	a	b	c	d
31	a	b	c	d
32	a	b	c	d
33	a	b	c	d
34	a	b	c	d
35	a	b	c	d
36	a	b	c	d
37	a	b	c	d
38	a	b	c	d
39	a	b	c	d
40	a	b	c	d

Part B: Short Answer Questions

1. The pH of aqueous solution is 3 at room temperature (25°C). What is the concentration of H^+ ions?

$pH = -\log [H^+]$ $\quad [H^+] = \text{antilog}(-pH) = \text{antilog}(-3) = 1\times10^{-3}$ mol/l

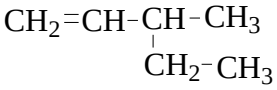
$[H^+] = 1\times10^{-3}$ mol/l

2. Express the rate law equation for the reaction $2\,H_{2(g)} + O_{2(g)} \rightarrow 2H_2O_{(g)}$

$\upsilon = k\,.[H_2]^2\,.\,[O_2]$

υ – rate $\quad$ k –rate constant

3. What is the IUPAC name of the compound shown?



3-methyl-1-pentene

……

4. Show the equation and name the products of the reaction between ethanoic acid and NaOH.

$CH_3COOH + NaOH \rightleftarrows CH_3COONa + H_2O$

sodium acetate $\quad$ water

(sodium ethanoate)

(sodium salt of acetic acid))