
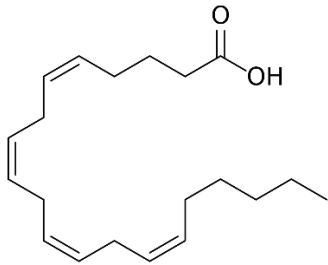
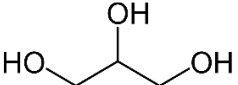
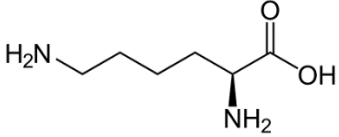
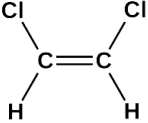


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Course: Biochemistry & Metabolism Program: BSC/Int BMSC – CR./MB./N&D. Course Code: HSCC1012		Semester: 1st Duration: 3 Hours Max. Marks: 100	
Instructions: Read all questions carefully.			
S. No.	Section A	Marks	COs
	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)		
Q			
1	Draw the structure of cysteine.	1.5	CO 1
2	State any two acidic amino acids.	1.5	CO 1
3	List any two biochemical significances of carbohydrates.	1.5	CO 1
4	List any two examples of aldose sugar.	1.5	CO 1
5	Define isomerism.	1.5	CO 1
6	Recall the structure of Fructose.	1.5	CO 1
7	Draw the structure of tyrosine.	1.5	CO 1
8	Name the purine nitrogenous bases.	1.5	CO 1
9	Define saponification process.	1.5	CO 1
10	Sketch the chemical structure of Lecithin.	1.5	CO 1
11	Following fatty acid is SFA/MUFA/PUFA? 	1.5	CO 1
12	Amide bond in protein chemistry is also known as?	1.5	CO 1
13	Outline the structure of cholesterol.	1.5	CO 2
14	Recognize the molecule. 	1.5	CO 2
15	Recognize the amino acid.	1.5	CO 2

			
16	<p>Identify the molecule is cis/trans isomer.</p> 	1.5	CO 2
17	How osazone formation of glucose happens.	1.5	CO 3
18	Draw the structure of glycogen.	1.5	CO 3
19	Sketch the structure of DNA.	1.5	CO 3
20	Illustrate the concept of allosteric inhibitors.	1.5	CO 3
<p>Section B (4Qx5M=20 Marks)</p>			
21	Examine and comment about the zwitter ion state of amino acids.	5	CO 4
22	Appraise the importance of DNA as genetic material.	5	CO 4
23	Defend why sucrose is also known as invert sugar.	5	CO 5
24	Support the concept of Induced-fit model of enzyme action.	5	CO 5
<p>Section C (2Qx15M=30 Marks)</p>			
25	Classify the carbohydrates along with their chemical structures.	15	CO 2
26	Demonstrate the biochemical significance and chemical nature of cyclic AMP.	15	CO 3
<p>Section D (2Qx10M=20 Marks)</p>			
27	Appraise about the secondary structure of protein.	10	CO 4
28	Critically evaluate the methods available to determine the purity of fat samples.	10	CO 5