


Name:			
Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b>			
<b>School of Health Sciences</b>			
End Semester Examination, January, 2021			
Course: Nutritional Biochemistry		Semester: I	
Program: M.Sc Food and Nutrition		Time 03 hrs.	
Course Code:		Max. Marks: 100	
<b>SECTION A</b>			
1. Each Question will carry 5 Marks			
2. Instruction: Complete the statement / Select the correct answer(s)			
S.No.	Question	Marks	CO
Q. 1	Write down the range of blood glucose level....., blood pressure..... and haemoglobin content..... of healthy humans?	5	CO1
Q. 2	Define fermentation and types of fermentation	5	CO2
Q. 3	Permitted antioxidant in Ghee..... and its level of addition in ghee.....	5	CO3
Q. 4	Iodine RDA..... and deficiency leads to....., Zinc deficiency leads to ....., Calcium deficiency leads to .....	5	CO2
Q. 5	RDA of potassium ....., calcium....., Iron ....., Zinc ....., Phosphorous .....	5	CO1
Q. 6	1. Bonding between main cellulose chain and branched chain cellulose: a) alpha-1-6 b) alpha-1-4 c) beta-1-4 d) beta-1-6 2. Differentiate between Mono, di and triglycerides	5	CO3
<b>SECTION B</b>			
1. Each question will carry 10 marks			
2. Instruction: Write short / brief notes			
Q. 7	Describe metabolic disorders? Write down about lipid metabolism?	10	CO5
Q. 8	Define antioxidants? Explain importance of antioxidants in human health?	10	CO2
Q. 9	Explain mechanism of hormone action and biochemical role of hormones?	10	CO3
Q. 10	Explain mechanism of action of enzymes? Role of enzymes in Food processing.	10	CO5
Q. 11	Define lipids and their classification? Describe about essential fatty acids? Or Importance of minerals in human health? Discuss about calcium and iron deficiencies and how to eradicate it?	10	CO1
<b>Section C</b>			
1. Each Question carries 20 Marks.			
2. Instruction: Write long answer.			
Q. 12	Differentiate between digestible and non-digestible carbohydrates? Draw diagram of starch, type of starch and their application in food industry? Or Describe about physico-chemical properties of Proteins? Discuss about amino acid and nucleotide metabolism?	20	CO4
		20	