

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, MARCH 2018
M. Sc. Semester II
Subject: BIOCHEMISTRY

Paper Code:11203180

Title of the paper: Nutritional biochemistry & Analytical methods

Date: 05/03 /2020

Time: 1.5 hr.

Maximum Marks: 40

Instructions:

- 1. All questions are compulsory and options are given in first and second question only.**
- 2. Numbers to the right of question indicate the marks of respective question.**

Q. 1	Attempt any one question of the following. (i) Explain types, sources and deficiency symptoms of fat soluble vitamins. (ii) Comment on role of essential fatty acids and phospholipids in nutrition.	(08)
Q. 2	Attempt any three questions of the following. (i) Briefly explain about nitrogen balance. (ii) Write about Kwashiorkor and marasmus. (iii) Elaborate the measurement of energy expenditure by indirect calorimetry . (iv) Describe the role of trace elements in nutrition. (v) Explain about the factors affecting BMR.	(12)
Q. 3	Do as directed. Attempt all five questions. (i) Enlist the names of vitamin B complex. (ii) Define RQ. (iii) Define and name essential amino acids. (iv) Concept of SDA. (v) Define obesity.	(05)
Q. 4	Write correct option in your answer sheet for following 15 multiple choice questions.	(15)

MCQ 1	Which of the following vitamin is essential for fatty acid synthesis			
	(A)	Biotin	(B)	Folate
	(C)	Vitamin B6	(D)	Vitamin B12
MCQ 2	Which of the vitamin is involved in blood clotting			
	(A)	Vitamin C	(B)	Vitamin D.
	(C)	Vitamin K	(D)	Vitamin E.
MCQ 3	The number of double bonds in Arachidonic acid			
	(A)	1	(B)	2
	(C)	3	(D)	4
MCQ 4	Which of the following is main nitrogenous compound in urine?			
	(A)	Uric acid	(B)	Ammonia
	(C)	Urea	(D)	Creatinine
MCQ 5	On average, obese people have a higher basal metabolic rate (BMR) than lean people, mainly because the body of the obese has more (in kg):			

	(A)	adipose tissue (fat mass)	(B)	Lean mass (fat-free mass)
	(C)	bone and minerals	(D)	Glycogen
MCQ 6	All of the following are sulfur containing amino acids found in proteins except:			
	(A)	Cysteine	(B)	Threonine
	(C)	Cystine	(D)	Methionine
MCQ 7	An important etiological factor in Kwashiorkor is			
	(A)	Anemia	(B)	Dietary protein deficiency
	(C)	Dietary mineral deficiency	(D)	Excess fiber
MCQ 8	The semi essential amino acid is :			
	(A)	Alanine	(B)	Arginine
	(C)	Serine	(D)	Glycine
MCQ 9	Biotin is involved in which of the following types of reactions?			
	(A)	Deamination	(B)	Reduction
	(C)	Carboxylation	(D)	Oxidation
MCQ 10	The intake of which food stuffs result in the greatest SDA:			
	(A)	Carbohydrates	(B)	Fats
	(C)	Proteins	(D)	Vitamins
MCQ 11	Oxidation of which substance yields the most calories per gram:			
	(A)	Lipids	(B)	Protein
	(C)	Glucose	(D)	Vitamins
MCQ 12	The calorific value of lipid is :			
	(A)	4 kcal/gm	(B)	6 kcal/gm
	(C)	9 kcal/gm	(D)	5 kcal/gm
MCQ 13	Which of the following is not a polymer of glucose			
	(A)	Amylose	(B)	Inulin
	(C)	Cellulose	(D)	Dextrin
MCQ 14	The carbohydrate reserve in human body is			
	(A)	Starch	(B)	Cellulose
	(C)	Glycogen	(D)	Maltose
MCQ 15	Invert sugar is			
	(A)	Lactose	(B)	Sucrose
	(C)	Fructose	(D)	Mannose

-- All The Best--