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**DHANALAKSHMI SRINIVASAN COLLEGE
OF ARTS & SCIENCE FOR WOMEN
(AUTONOMOUS)**
(For Candidates admitted from 2018-2019 onwards)



**UG DEGREE EXAMINATIONS APRIL - 2021
B.Sc., - BIOCHEMISTRY
NUTRITIONAL BIOCHEMISTRY**

Time: 3 Hrs

Max.Marks: 75

PART - A

CHOOSE THE CORRECT ANSWER

(10X1=10)

- Which body compartment is directly proportional to basal metabolic rate?
a) Body fat b) extracellular volume c) lean body mass d) Plasma volume
- A food contains 5 grams of carbohydrate, 10grams of fat and 5 grams of protein. How many calories (kcal) does this food provide?
a) 20 b) 80 c) 130 d) 180
- Kwashiorkor is characterized by all of the following EXCEPT:
a) Gross underweight (<60% of standard) b) edema
c) Fatty liver d) hypoalbuminemia.
- The amount of heat liberated by complete combustion of unit quantity of fuel is known
a) Agitaion b) Combustion c) Calorific value d) Thermogenesis
- Proteins are made up of
a) Lipids b) Amino acids c) Fatty acids d) Glycogen
- The protein found in the milk of the cow is
a) Albumin b) Vitelline c) Livetin d) Casein
- Which is an important mineral nutrient?
a) Hydrogen b) Nitrogen c) Oxygen d) Carbon
- Which mineral is essential for thyroid hormone function?
a) Iodine b) Copper c) Magnesium d) Sodium
- Insulin is a natural hormone secreted by which organ or gland?
a) Liver b) Brain c) Pancreas d) Kidney
- Which vitamin may interact with the anti-coagulant warfarin and increase the risk of excessive bleeding?
a) Vitamin A b) Vitamin E c) Vitamin B6 d) Vitamin B12

PART - B

ANSWER ALL THE QUESTIONS

(5X7=35)

11. a) Write short note on dietary carbohydrates.

(OR)

b) Define antioxidants and explain the functions of antioxidants.

12. a) What do you mean by balanced diet? Explain the recommended dietary allowance from infants.

(OR)

b) Discuss on respiratory quotients of food stuffs.

13. a) Explain the biological value of proteins and about nitrogen balance.

(OR)

b) Why few aminoacids are essential? What are the essential and non-essential aminoacids?

14. a) Define macromolecules. Mention the significance of macromolecules.

(OR)

b) Trace elements plays significant role in diet. Discuss

15. a) Explain the drug nutrient interaction.

(OR)

b) How will you treat inborn errors of metabolism by nutrition?

PART - C

ANSWER ANY THREE QUESTIONS

(3X10=30)

16. How will you determine calorific value by Bomb calorimeter?

17. Give a detailed note on BMR and factors influencing the BMR.

18. Explain about protein energy malnutrition.

19. Elaborate on nutraceuticals and its types.

20. Diet and nutrition prevents and treat disease like diabetes mellitus. Justify.