

**D.K.M.COLLEGE FOR WOMEN(AUTONOMOUS),VELLORE-1**

**M.Sc Biochemistry**

**Semester : I**

**Title of the paper: HUMAN PHYSIOLOGY AND NUTRITION BIOCHEMISTRY**

**Subject Code : 15CPBC1C**

**SECTION-A**

**6 MARKS**

1. Write a note on the composition and function of blood.
2. Give an account on the structure and function of heart.
3. Give a note on blood clotting factors.
4. Write an account on the structure and function of lungs.
5. Give the structure and function of stomach.
6. What is the role of pancreas in the process of digestion?
7. What is the role of bile salt in the digestion of lipids?
8. Give an account on the structure and function of kidney.
9. Write about the structure and function of nephron.
10. Write about the structure and function of neuron.
11. Explain the mechanism of nerve impulse transmission.
12. Define synapse. What is synaptic transmission?
13. What are neurotransmitters? Explain.
14. Write about the structure and function of spinal cord.
15. What are muscle proteins? Give an account on the structure and its function.
16. What is the role of creatine phosphate in muscle contraction?
17. What is the role of calcium in muscle contraction?
18. What is sliding mechanism in the process of muscle contraction?
19. What is calorific value of foods?
20. Give a short note on SDA.

21. Give a note on the biological value of proteins.
22. What is the deficiency status and toxicity of Vitamin A?
23. Give the source, function and deficiency of Vitamin C?
24. What are the source, function and deficiency of Thiamine?
25. Give the function and deficiency of Iodine.
26. Explain the biological function and deficiency status of Iron.
27. What is the function and toxicity of flourine.
28. Give the deficiency status of Vitamin D.

**SECTION-B            15 Marks**

1. Explain the blood clotting mechanism.
2. Explain the mechanism of respiration.
3. Write an account on the transport of oxygen between tissues and lungs.
4. Write about the transport of carbon-dioxide.
5. Give an account on the morphology and function of different types of cells.
6. Write about the various components of digestive system.
7. Explain the role of kidney in acid base balance.
8. Explain the mechanism of urine formation.
9. Give an account on the types of muscle.
10. Explain the process of muscle contraction.
11. Write about the structure and function of brain.
12. Give an illustrated account on the structure and function of male reproductive system.
13. Give an illustrated account on the structure and function of female reproductive system.
14. Write about the physiology of pregnancy.
15. Give the physiology of parturition and lactation.
16. Write about the measurement of energy expenditure by bomb calorimeter.
17. What is BMR? What are the factors affecting BMR and how is it measured?  
Give the significance of measuring BMR.

18. What is RQ? Explain.
19. Give a detailed note on the nutritive value of foods.
20. Write about the clinical features, preventive and curative measures of kwashiorkor and marasmus.
21. Write about the source, biochemical function and deficiency status of calcium.
22. Give a detailed account on the transport and metabolism of Iron.
23. Enumerate the biochemical function and deficiency status of sodium and potassium.
24. Explain the process of drug-nutrient interaction.
25. Give an account on hormone-nutrient interaction.