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Question Bank

DSC-1C B.Sc GENERAL, 3rd SEM(Physiology and Biochemistry)

Group-A marks -2

1. Define synaps.
2. What is Intercalated disc? and its function.
3. What is Ammonotelism?
4. Define counter current system.
5. What do you mean by Apoenzyme? Give an example.
6. What is hyperparathyroidism?
7. What is essential fatty acids? Give an example.
8. Why TCA cycle is called amphibolic pathway?
9. Distinguish between Essential and Non –essential aminoacids.
10. What do you mean by Holoenzyme?Give an example.
11. Write down the Michaelis – Menten equation.
12. What do you mean by Fight or Flight response?
13. What do you mean by Hemostasis?
14. Differentiate between Myelinated and Non-myelinated nerve fibre.
15. What is Allosterism?

GROUP-B

MARKS-5

1. Discuss counter current mechanism of urine formation.
2. Write short note on JGA with proper diagram.
3. Describe the enzymatic steps of Gluconeogenesis.
4. Write briefly on beta-oxidation of fatty acids.
5. Describe the Glycolysis process.
6. Describe the structure of Mammalian nephron with the suitable diagram.
7. Describe the Ornithine cycle.
8. Distinguish between enzyme and catalyst. Define isoenzyme and antienzyme . 3+2
9. Enlist the major functions of testosterone and estrogen in mammalian reproduction
10. Describe the Krebs cycle.
11. Briefly describe the hormonal control of spermatogenesis.

12. Briefly describe the function of different hormones secreted from pituitary.
13. Briefly describe the function of different hormones secreted from thyroid.
14. Briefly describe the function of different hormones secreted from adrenal gland.
15. Briefly describe the hormonal control of meanstrual cycle.

Group-c marks-10

1. Describe the molecular mechanism of muscle contraction.state the differtiate between I- band anaA-band.Define refractory period of skeletal muscle. 6+2+2
2. Describe the ultrastructure of skeletal muscle with proper diagram.Explain the role of ca++ and ATP in the contraction of skeletal muscle. 6+2+2
3. Describe counter current multiplier and counter current exchange systems in the process of urine formation in Mammalian kidney. 5+5
4. Distinguish between saturated and un- saturated fatty acid. What do you mean by biological oxidation.Describe the various steps of beta-oxidation of fatty acid. 2+2+6
5. Classify enzymes with examples. Describe the effects of pH and tempareture on enzyme action.what are the co-enzyme. 5+2+2+1
6. Describe the biochemical pathway of Glycolysis mentioning the enzyme involved in it. Define de-amination and trans amination . 6+2+2
7. Briefly describe the hormonal control of meanstrual cycle. Briefly describe the function of different hormones secreted from pituitary gland. 5+5
8. Briefly describe the function of different hormones secreted from thyroid. Briefly describe the function of different hormones secreted from adrenal gland. 5+5
9. Describe the Krebs cycle mentioning the enzyme involved in it. Why krebs cycle is called TCA cycle. 8+2
10. Describe the different types and causes of heart sounds .what is SA nodeand AV node. 6+2+2
11. What is enzyme.Mention properties of enzyme. Briefly describe Michaelis-menten equation for enzyme kinetics. 1+4+5
12. Briefly describe model of enzyme substrate interactions.
13. What is Urea cycle and where does it occur. Describe the enzymatic steps of Urea cycle. 2+1+7