TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021

CHEMISTRY

(3rd Semester)

Course No. : CHMSEC–301T

(Analytical Clinical Biochemistry)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *fifteen* as directed (very short-type answer) : 1×15=15

1. Glucose is a reducing / non-reducing sugar.
(Choose the correct option)

2. Write the full form of NADH.

3. What is the end product of aerobic glycolysis?

4. How many molecules of ATP are produced in glycolysis?

5. What is the full form of ADP?

6. Give one example of coenzyme.

7. What are the two terminals of protein?

8. What is coenzyme?

9. What are prosthetic group?

10. Which one is fibrous protein?

(a) Hair

(b) Haemoglobin

11. Enzymes are biological catalyst / chemical catalyst / organic catalyst.

(Choose the correct option)

12. What is enzyme inhibition?

13. Give example of simple lipid.

14. "Lipids are soluble in water."
(Write True or False)

15. What are lipoproteins?

16. Soap contains fat / nucleic acid.
(Choose the correct option)

17. Give one example of steroid hormone.

18. Give one important function of hormone.

19. Which vitamin is responsible for blood coagulation?

20. Which blood group human is considered as universal recipient of blood?

21. What is anaemia?

22. Give one important function of blood.

23. Oxygenated blood travels through arteries / veins.
(Choose the correct option)

24. What are major constituents of urine?

25. Creatinine level more than normal range indicates which disorder in human being?

26. Name the disease which can be indicated by high bilirubin in blood.

27. Which disease may cause due to high cholesterol level?

28. What are two types of blood sugar analysis normally a physician advise?

29. What chemical is used to preserve blood so that it does not coagulate?

30. "High cholesterol is caused mainly by excessive consumption of fatty food."

(Write True or False)

SECTION—B

(Short-type Answer)

Answer *any* **five** questions

31. Discuss the important functions of carbohydrates. 2

32. Discuss the ethyl alcohol fermentation in presence of yeast. 2

33. How are proteins classified? 2

34. Give two characteristics of enzymes. 2

35. Discuss the biological importance of triglycerides. 2

36. Name two important hormones and write the name of disorder may appear due to absence of these hormones. ½+½+½+½=2

37. What are different methods of collection of blood samples? 2

38. How are urine samples preserved for pathological analysis? 2

39. Discuss how the creatinine level is interpreted for normal human being. 2

40. Discuss how blood sugar is clinically interpreted. 2

SECTION—C

(Broad-type/Essay-type Answer)

Answer *any* **five** questions

41. Discuss briefly the formation of lactic acid from glucose in absence of oxygen. 5

42. Discuss briefly the formation of ethyl alcohol from glucose during glycolysis. 5

43. Discuss briefly the primary, secondary and tertiary structures of protein. 5

44. Discuss the lock and key model of enzyme action. 5

45. What are lipids? How are they classified? 1+4=5

46. Write a short note on deficiency disease/ disorder may appear due to imbalance of hormones. 5

47. What are the important components of blood? Discuss the important functions of blood in human. 2+3=5

48. Discuss briefly the composition and estimation of constituents of normal and pathological urine. 5

49. Discuss how the blood sugar data be interpreted for a healthy and unhealthy human being. 5

50. Discuss how the cholesterol level is diagnosed. How is the cholesterol level controlled? 3+2=5

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