

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**BDS DEGREE EXAMINATION – August 2018**  
**First Year**

**BIOCHEMISTRY**

Time: Three hours

Maximum: 100 marks

**SECTION – A**  
**Answer ALL Questions**

**I. ESSAY:** **(1 x 15 = 15)**

1. Write the normal blood sugar level. Describe the hormonal regulations of blood sugar and give three features of diabetes mellitus.

**II. WRITE SHORT NOTES ON:** **(3 x 5 = 15)**

2. Fluoride in dental health
3. Active form of vitamin D and its functions
4. Factors affecting enzyme activity

**III. WRITE BRIEFLY ON:** **(10 x 2 = 20)**

5. Ketosis
6. Scurvy
7. Significance of HMP shunt pathway
8. Four functions of lipids
9. Lipoproteins
10. Names of mucopolysaccharides
11. Dietary fibre
12. Name of glycogen storage diseases
13. Cholesterol
14. Lactose intolerance

(p.t.o)

**SECTION – B**  
**Answer ALL Questions**

**IV. ESSAY:** **(1 x 15 = 15)**

15. Explain classification of aminoacids in detail.

**V. WRITE SHORT NOTES ON:** **(3 x 5 = 15)**

16. Gout

17. Mutation

18. Hemoglobin

**VI. WRITE BRIEFLY ON:** **(10 x 2 = 20)**

19. Abnormal constituents of urine

20. Porphyria

21. Glycated hemoglobin (HbA1c)

22. Reference ranges of serum urea and uric acid

23. Translation

24. Plasma proteins

25. Four causes of jaundice

26. Second messengers

27. Ketogenic amino acids

28. Isoelectric pH

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