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**FNDFNC 381**

**Choice Based Credit System Sixth Semester B.Sc. (FND) Degree  
Examination, September 2022  
(2021-22 Batch Onwards)  
NUTRITIONAL BIOCHEMISTRY – II**

Time : 3 Hours

Max. Marks : 80

**PART – A**

I. Answer **any ten** of the following : **(10×2=20)**

- 1) a) Name any two sulphur containing aminoacids.
- b) Write the structure of ATP.
- c) What are glycoproteins ? Give one example.
- d) What are nucleosides ? Give an example.
- e) Write the structure of tyrosine.
- f) Give any two biochemical functions of Vitamin C.
- g) Write the structure of TPP.
- h) Name the hormones of adrenal medulla.
- i) Write on deficiency symptoms of Vitamin B<sub>6</sub>.
- j) Which hormone is called life saving hormone and why ?
- k) Write the biochemical role of zinc.
- l) What is diuresis ? How it is caused ?

**PART – B**

II. Answer the following : **(4×15=60)**

- 2) a) Give the classification of aminoacids based on their polarity with examples.
- b) Explain  $\alpha$ -helix.
- c) Give an account on classification of proteins based on solubility. **(4+4+7)**

OR

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- 3) a) Explain the bonds in proteins.  
b) Write a note on zwitterion.  
c) Explain prokaryotic protein synthesis. **(5+3+7)**

- 4) a) Explain the structure of DNA and mention its functions.  
b) Explain the tertiary structure of tRNA.  
c) Give an account on DNA replication in prokaryotes. **(4+4+7)**

OR

- 5) a) Explain the synthesis of mRNA in prokaryotes.  
b) Write a note on rRNA.  
c) Discuss the methods of DNA repair mechanism. **(5+3+7)**

- 6) a) Explain the biological role of ADH and LH.  
b) Write a note on Diabetes mellitus.  
c) Give an account of biological role and deficiency symptoms of GH. **(4+4+7)**

OR

- 7) a) Explain the biological role of testosterone and oxytocin.  
b) Write a note on progesterone.  
c) Give an account on biological role and deficiency disorders of insulin. **(5+3+7)**

- 8) a) Explain the biochemical functions of Vitamin B<sub>1</sub>.  
b) Write on biochemical role of sodium and iron.  
c) Give an account on sources, biochemical functions and deficiency symptoms of Vitamin A. **(4+4+7)**

OR

- 9) a) Explain the biochemical role of copper and magnesium.  
b) Write a note on beriberi.  
c) Give an account on sources, biochemical functions and deficiency disorders of Vitamin D. **(5+3+7)**
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