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BSCBCC 382

**Choice Based Credit System Sixth Semester B.Sc. Degree
Examination, September 2022
(2021–22 Batch Onwards)
BIOCHEMISTRY
Nutrition, Microbiology and Immunology**

Time : 3 Hours

Max. Marks : 80

Note : Answer **all** the questions and draw diagrams **wherever** necessary.

PART – A

1. Answer **any ten** of the following : **(2×10=20)**
- Define respiratory quotient with examples.
 - With examples define invisible fats.
 - Write the deficiency disorder of chlorine.
 - Write the sources and harmful effects of lead acetate.
 - What is meant by glycemic index ?
 - What are the factors inducing appetite ?
 - Write the role of iodine in Gram staining.
 - What is a bacteriophage ? Give one example.
 - What is the role of pH in microbial growth ?
 - Define antigenicity.
 - Define humoral immunity.
 - Write the principle of RIA.

PART – B

Answer **any four** full questions choosing **one full** question from **each** Unit.

Unit – I

2. a) Give an account on determination of BMR. **4**
b) Explain NPU and PER. **4**
c) Explain the role of Mg and Zn as minerals in the living system. **7**

OR

P.T.O.



3. a) Write a note on essential amino acids. **3**
b) Explain dietary sources, dietary fibres and protein sparing action in brief. **5**
c) Discuss on :
i) Mutual supplementation of proteins,
ii) Role of K in biological system. **7**

Unit – II

4. a) Describe on distribution of water in body fluids. **4**
b) Give an account on obesity. **4**
c) Explain the role of pancreatic hormones on absorption and transport of proteins. **7**

OR

5. a) Write a note on Kwashiorkor and Marasmus. **5**
b) Write a note on malachite green as adulterant. **3**
c) Explain on sources and effects of anti-vitamins. **7**

Unit – III

6. a) Explain acid fast staining. **4**
b) Discuss on bacterial growth curve. **4**
c) Explain the character and replication of TMV. **7**

OR

7. a) Discuss the mechanism of action of streptomycin. **5**
b) Describe wine production. **7**
c) Explain single cell protein. **3**

Unit – IV

8. a) Explain the structure of IgG. **4**
b) Describe formation and functions of T-lymphocytes. **4**
c) Explain on ELISA. **7**

OR

9. a) Write a note on allergy. **3**
b) Discuss on Ouchterlony double diffusion. **5**
c) Explain formation and functions of β -lymphocytes. **7**
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