

**ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, LUCKNOW**  
**MBBS DEGREE EXAMINATION - 1st PROF PROFESSIONAL**  
**SUPPLEMENTARY EXAM - MARCH 2024**

**BIOCHEMISTRY - PAPER - II**

**SECTION A - Multiple Choice Questions (MCQs)**

**PAPER CODE: 2422130003**

**SET: C**

**Note: Choose one correct answer in the OMR sheet provided. No overwriting should be done.**

**Time: 20 Minutes**

**(20 x 1 = 20 MARKS)**

1. The substance that facilitates protein degradation is:

- a) phylloquinone
- b) ubiquitin
- c) ubiquinone
- d) menaquinone

2. The primary defect in Xeroderma pigmentosa is:

- a) Poly ADP ribose polymerase is defective
- b) Formation of thymidine dimers
- c) Formation of adenine dimers
- d) Exonuclease is defective

3. Enzymes responsible for respiratory burst:

- a) Peroxidases
- b) Hydroxylases

- c) Dehydrogenases
- d) NADPH oxidase

4. Starting material for production of insulin from bacteria is:

- a) mRNA of lymphocytes
- b) Genomic DNA of lymphocytes
- c) Genomic DNA of beta cell of pancreas
- d) mRNA of beta cells of pancreas

5. Nitric acid is a signaling molecule produced from:

- a) cysteine
- b) arginine
- c) methionine
- d) histidine

6. Amino acids which absorb ultraviolet light are:

- a) Basic amino acids
- b) Aromatic amino acids
- c) Acidic amino acids
- d) Neutral amino acids

7. Which of the following is an antiapoptotic gene:

- a) P53
- b) C-myc
- c) Bax
- d) Bcl-2

8. Antigen binding site on immunoglobulin is:

- a) Variable region
- b) Constant region
- c) Hinge region
- d) Hypervariable region

9. Vitamin required for post-translational modification of coagulants is:

- a) Vitamin A
- b) Vitamin C
- c) Vitamin B6
- d) Vitamin K

10. The amyloid protein deposition associated with Alzheimer's disease is composed of:

- a) Alpha helix
- b) Beta pleated sheet
- c) Quaternary structure
- d) Tertiary structure

11. One of the nitrogen atoms of urea molecule is provided by:

- a) Aspartate
- b) Glutamate
- c) Ornithine
- d) Citrulline

12. Thermostability in DNA is contributed mostly by:

- a) A=T
- b) G=C
- c) Molecular base
- d) Parallel arrangement

13. Glutathione is a tripeptide made up of:

- a) Glutamate + methionine + arginine
- b) Glutamate + glycine + arginine
- c) Glutamate + alanine + arginine
- d) Glutamate + cysteine + glycine

14. Rate limiting step for the entire process of hepatic bilirubin metabolism:

- a) Uptake of bilirubin by liver with albumin
- b) Transport of bilirubin
- c) Secretion of conjugated bilirubin into the bile
- d) Conjugation of bilirubin

15. Glutamine in blood acts as:

- a) Toxic element
- b) NH<sub>3</sub> transporter
- c) Abnormal metabolite
- d) Stored energy

16. An amino acid which becomes essential in phenylketonuria is:

- a) Tyrosine
- b) Phenylalanine

- c) Methionine
- d) Tryptophan

17. Which of the following tests is used to detect proteinuria:

- a) Fouchet test
- b) Heat coagulation and acetic acid test
- c) Benzidine test
- d) Hay's sulphur test

18. Antibody that can cross placenta to protect fetus:

- a) IgG
- b) IgA
- c) IgE
- d) IgM

19. The enzyme deficient in Lesch-Nyhan syndrome is:

- a) HGPRTase
- b) GLutaminase
- c) Transcarboxylase
- d) GTRT

20. The mutation found in sickle cell anaemia can be classified as:

- a) Non-sense mutation
- b) Silent mutation
- c) Insertion
- d) Missense mutation