



Date of issue :

Centre :

Sup. Sign. :

Seat No. :

ND-2006000101030002-O Seat No. \_\_\_\_\_

First Year M. B. B. S. Examination

December - 2021

Biochemistry : Paper - II

(New CBME Pattern)

Time : Hours]

[Total Marks : 80

Instruction :

નીચે દર્શાવેલ નિશાનીઓની વિગતો ઉતારવાની પર અવશ્ય જણશે. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination : First Year M. B. B. S.		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the Subject : Biochemistry : Paper - II		<div style="border: 1px solid black; border-radius: 10px; height: 80px; display: flex; align-items: center; justify-content: center;">         Student's Signature       </div>
Subject Code No. : 2 0 0 6 0 0 0 1 0 1 0 3 0 0 0 2		

Section A: MCQ

(20 marks)

Instructions:

- All questions are compulsory
  - Each MCQ has only one correct answer
  - One mark for correct answer. No negative marking
- Michaelis constant ( $K_m$ ) of an enzyme is
    - Dependent upon the enzyme concentration
    - Numerically equal to  $\frac{1}{2} V_{max}$
    - Independent of pH
    - Numerically equal to substrate concentration at  $\frac{1}{2} V_{max}$

- 2 Creatine kinase level in serum is increased in:
- Myocardial infarction
  - Infective hepatitis
  - Prostate cancer
  - Intravascular hemolysis
- 3 Which enzyme is used for preparing recombinant DNA molecules?
- Restriction endonuclease
  - DNA Polymerase
  - RNA Polymerase
  - Topoisomerase
- 4 Southern blotting analysis is used for all,except:
- Detecting the presence of a mutant gene
  - Studying a microarray
  - Visualizing DNA profile
  - Detecting Restriction fragment length polymorphism
- 5 Deficiency of thyroxine results in:
- |                   |                      |
|-------------------|----------------------|
| a. Graves disease | b. Cushings syndrome |
| c. Myxedema       | d. Thyrotoxicosis    |
- 6 Heme biosynthesis does not occur in
- |               |                              |
|---------------|------------------------------|
| a. Osteocytes | b. Liver                     |
| c. RBC        | d. Erythroid cells of marrow |
- 7 Which vitamin is required for carboxylation of clotting factors
- |              |              |
|--------------|--------------|
| a. Vitamin A | b. Vitamin D |
| c. Vitamin E | d. Vitamin K |
- 8 Mitochondrial DNA is
- |                    |                    |
|--------------------|--------------------|
| a. Closed circular | b. Nicked circular |
| c. Linear          | d. Open circular   |
- 9 Northern blot is for
- |            |                            |
|------------|----------------------------|
| a. DNA     | b. RNA                     |
| c. Protein | d. DNA protein interaction |

- 10 All are regulatory sequences on DNA, EXCEPT:
- Attenuator sequences
  - Enhancer sequences
  - Consensus sequences
  - Promoter sequences
- 11 Tumor suppressor genes are sometimes called:
- Antioncogenes
  - Proto Oncogenes
  - Oncogenes
  - Proximate Carcinogens
- 12 Conversion of allopurinol to alloxanthine is an example of:
- Competitive inhibition
  - Uncompetitive inhibition
  - Non-competitive inhibition
  - Suicide Inhibition
- 13 Radioisotopes used for treatment of thyroid cancer is
- $I^{131}$
  - $Au^{198}$
  - $Cs^{139}$
  - $Ta^{182}$
- 14 Chaperon proteins play a role in
- Protein folding
  - Protein misfolding
  - Denaturation
  - All the above
- 15 During denaturation, all the levels of a protein structure are disrupted, Except:
- Primary Structure
  - Secondary Structure
  - Tertiary Structure
  - Quaternary Structure
- 16 Catabolite gene activator protein along with cyclic AMP (CAP – cAMP) is associated with the function of
- Lac operon
  - Tryptophan operon
  - Both of the above
  - None of the above
- 17 Corona virus is positive stranded RNA virus having lipid bilayer with M spike protein in it. Which of the following nitrogen base is absent in genome of this virus?
- Guanine
  - Cytosine
  - Thymine
  - Adenine

- 18 The receptor of the following hormone has intrinsic tyrosine kinase activity
- a. Insulin
  - b. ADH
  - c. Steroids
  - d. Glucagon
- 19 Positive nitrogen balance is seen in
- a. Starvation
  - b. Wasting diseases
  - c. Growing age
  - d. Intestinal malabsorption
- 20 Transmethylation of guanidoacetate gives
- a. Creatine
  - b. Creatinine
  - c. Choline
  - d. n-methyl nicotinamide
-