

Seat Number

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BP 203 T  
Biochemistry  
(712203)



गज - 010

P. Pages : 3

Time : Three Hours

Max. Marks 25

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Figure to the right indicates full marks.
5. All questions are compulsory.

1. i) Anabolic glycolysis occur in 20  
a) Liver b) Kidney  
c) Muscle d) Brain
- ii) Glucose 6 phosphate enzyme is present in  
a) Liver b) Brain  
c) Lungs d) Muscles
- iii) Which of the following general formula for monosaccharides.  
a)  $C_n H_{2n+2} O_n$  b)  $C_n H_{2n+1} O_n$   
c)  $C_n H_{2n} O_n$  d)  $C_n H_{2n} O$
- iv) Lipid passes both hydrophilic & hydrophobic group are known as  
a) Amphiprotic b) Amphipathic  
c) Amphophilic d) Neutral
- v) Proteins are polymer  
a) L -  $\alpha$  amino acid b) L -  $\beta$  amino acid  
c) D -  $\alpha$  amino acid d) D  $\beta$  - amino acid
- vi) The SI Unit of potential energy is \_\_\_\_\_.  
a) Pascal b) Dyne  
c) Joule d) Pound
- vii) Sum of all chemical reactions in body is known as  
a) Anabolism b) Catabolism  
Uracilism d) Metabolism
- Which pyrimidine base contains an amino group at fourth carbon?  
a) Cytosine b) Thymine  
c) Uracil d) Adenine

- ix) Study of energy relationship & energy conversion in biological system called as.
- Bioenergetics
  - Biotechnology
  - Microbiology
  - Biophysics
- x) End product of glycolysis is
- Glucose
  - Pyruvic acid
  - Citric acid
  - Glycogen
- xi) Which one is largest particulate of cytoplasm?
- Lysosomes
  - Golgi apparatus
  - Mitocondria
  - ER
- xii) In photosynthesis CO<sub>2</sub>, light & water are
- Reactant
  - Product
  - By product
  - Catalyst
- xiii) During DNA replication hydrogen bond is bracked by
- DNA ligase
  - DNA helicase
  - DNA gyrase
  - DNA polymerase
- xiv) Cytochrome oxidases are example of
- Oxygenase
  - Dehydrogenase
  - Oxidases
  - Oxidoreductase
- xv) Blood urea decreases in all of the following condition except than.
- Liver oirrhosis
  - Pregnancy
  - Renal failuer
  - Angina pectoris
- xvi) Following one is most toxic compound
- Tyrosine
  - Phenylpyruvate
  - Lysine
  - Phenyl alanine
- xvii) Ketonebodies are synthesized in
- Liver
  - Kidney
  - Heart
  - Brain
- xviii) Helicase are dependent on ----- for energy.
- ATP
  - Glucose
  - GTP
  - FADH
- xxi) ----- is used to dissolve blood clots in circulation.
- Penicililine
  - Streptokinase
  - Phosphokinase
  - None
- xx) Major constituent of plasma membrane is
- Sphignolipid
  - Phospholipid
  - Triglycerol
  - Linoleic

2. Solve any two.

20

- a) Explain in detail glycolysis pathway with its significances.
- b) Write a brief note on Redox potential & give classification & biological significances of ATP & cyclic AMP.
- c) Explain in detail  $\beta$  oxidation of palmitic acid.

3. Solve any seven.

- a) Write a note on formation & utilization of ketone bodies.
- b) Give an account of TCA cycle.
- c) Describe in detail disorders of lipid metabolism.
- d) Write a note on DNA replication.
- e) What is ETC & describe its mechanism.
- f) Write a brief note on enzymes inhibitors.
- g) Explain in brief Denovo synthesis of fatty acids.
- h) Write classification of lipid with suitable examples & elaborate functions of lipid.
- i) Discuss in brief transamination & deamination reactions.



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