

Seat Number

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BP 203 T
Biochemistry
(712203)



P. Pages : 3

Time : Three Hours

Max. Marks : 45

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 indicate full marks.
5. All questions compulsory.

1. Multiple choice questions (MCQ's)

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- 1) The name glycolysis indicates breakdown of ----- into
 - a) Pyruvate, Glucose
 - b) Glucose, Pyruvate
 - c) Both of them
 - d) None of these
- 2) Which one is the largest particulate of the cytoplasm?
 - a) Lysosomes
 - b) Golgi apparatus
 - c) Mitochondria
 - d) Endoplasmic Reticulum
- 3) The major constituents of plasma membrane is -----
 - a) Phospholipid
 - b) Sphingolipid
 - c) Triacylglycerol
 - d) Linoleic acid
- 4) Cellular respiration is an example of
 - a) Endergonic reaction
 - b) Oxidation reaction
 - c) Exergonic reaction
 - d) None of these
- 5) The normal concentration of uric acid in the serum of adults is within the range of
 - a) 3 – 7 mg/dL
 - b) 2 – 4 mg/dL
 - c) 7 – 8 mg/dL
 - d) 5 – 9 mg/dL.
- 6) ----- is the major site for purine nucleotide synthesis.
 - a) Brain
 - b) Liver
 - c) Adipose tissue
 - d) Kidney
- 7) Enzymes are ----- in nature.
 - a) Carbohydrate
 - b) Lipid
 - c) Protein
 - d) Acidic

- 8) A compound which found in all living cells & play key role in energy transformation is.
 - a) ADP
 - b) ATP
 - c) Chlorophyll
 - d) Granum
- 9) Study of energy relationship & energy conversion in biological system is termed as
 - a) Microbiology
 - b) Biotechnology
 - c) Bioenergetics
 - d) Biophysics
- 10) Nucleoside is a pyrimidine or purine base -----
 - a) Covalently bonded to sugar
 - b) Ionically bonded to sugar
 - c) Hydrogen bonded to sugar
 - d) None of these
- 11) Which of the following is a common compound shared by TCA cycle & uric acid cycle?
 - a) α - ketoglutarate
 - b) Succinyl co A
 - c) Oxaloacetate
 - d) Fumarate
- 12) ----- used for the determination of ketone bodies.
 - a) Shinoda test
 - b) Rothera test
 - c) Van Ark test
 - d) Shick test
- 13) Lipids are generally ----- in nature.
 - a) Hydrophilic
 - b) Hydrophobic
 - c) Both
 - d) None
- 14) Type III glycogen storage disease is known as -----
 - a) Cori's disease
 - b) Gierke's disease
 - c) Pompe's disease
 - d) Anderson's disease
- 15) Hydrolysis of fats by alkalies into fatty acids & glycerol is called.
 - a) Coagulation
 - b) Saponification
 - c) Suspension
 - d) Neutralisation
- 16) Simplest form of sugar are usually.
 - a) Colorless
 - b) Watersoluble
 - c) Crystalline
 - d) All of above
- 17) DNA replication starts with
 - a) Small fragment of DNA
 - b) DNA ligase
 - c) OKAZAKI Fragment
 - d) Small fragments of RNA
- 18) Each enzymes have its ----- structure.
 - a) Primary
 - b) Secondary
 - c) Tertiary
 - d) Quaternary
- 19) Bile acid is synthesized in -----
 - a) Kidney
 - b) Liver
 - c) Intestine
 - d) Stomach

- 20) ----- is end product of gluconeogenesis pathway.
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|--------------|-----------------|
| a) Pyruvate | b) Glucose |
| c) Bile acid | d) Oxaloacetate |

2. Solve any two.

20

- Give steps of β oxidation of saturated fatty acid in brief.
- What is glycolysis? Give its pathway & significances.
- Give classification of proteins & explain in detail structural classification of proteins.

3. Solve any seven.

35

- Explain HMP shunt pathway.
- Describe metabolic disorders of catabolism of phenylalanine & tyrosine.
- Write a note on DNA replication.
- What is ETC & describe its mechanism.
- Explain in detail pathway of urea cycle.
- Give brief account on lipid.
- Write a note on formation & utilization of ketonebodies.
- Give classification of carbohydrate & discuss its biological role.
- Give classification & application of enzymes.
