

A-0028

Total Pages : 3

Roll No.

MBOT-504

M.Sc. BOTANY (MSCBOT-20)

(Biochemistry)

1st Semester Examination, Session December 2024

Time : 2:00 Hrs.

Max. Marks : 35

Note :- This paper is of Thirty Five (35) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A

(Long Answer Type Questions) 2×9½=19

Note :- Section 'A' contains Five (05) Long-answer type questions of Nine and Half (9½) marks each. Learners are required to answer any *two* (02) questions only.

1. Define coefficient of thermal conductivity of a gas.
Derive an expression for thermal conductivity (K) of a gas on the basis of kinetics theory of gases.
2. Enumerate various function of carbohydrate.
3. What are lipoproteins ? Give their classification.
4. Name the different types of RNA and describe the composition and function of RNA.
5. With the help of diagram, explain Singer and Nicolson model of plasma membrane.

Section–B

(Short Answer Type Questions) 4×4=16

Note :- Section 'B' contains Eight (08) Short-answer type questions of Four (04) marks each. Learners are required to answer any *four* (04) questions only.

1. Define activation energy of enzymes.
2. Describe double helical structure of DNA.
3. What are monosaccharides ? Give examples.

4. Differentiate between saturated fatty acids and unsaturated fatty acids.
5. Discuss about mitochondrial DNA.
6. Describe the structure of starch and glycogen.
7. What are the factor affecting enzyme activity ?
8. Describe the secondary structure of proteins.
