

Model Paper SSC-I

Biology – 9th (New Syllabus)

Section-A

Time: 20 Minutes

Marks: 12

Note: Section-A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q1. Insert the correct option i.e. A/B/C/D in the empty box provided opposite each part. Each part carries one mark.

i. In most plants the food is transported in the form of;

A. Glucose B. Sucrose

C. Starch D. Proteins

ii. The process of breaking down large droplets of fat into small droplets of fat is called:

A. Emulsification B. Absorption

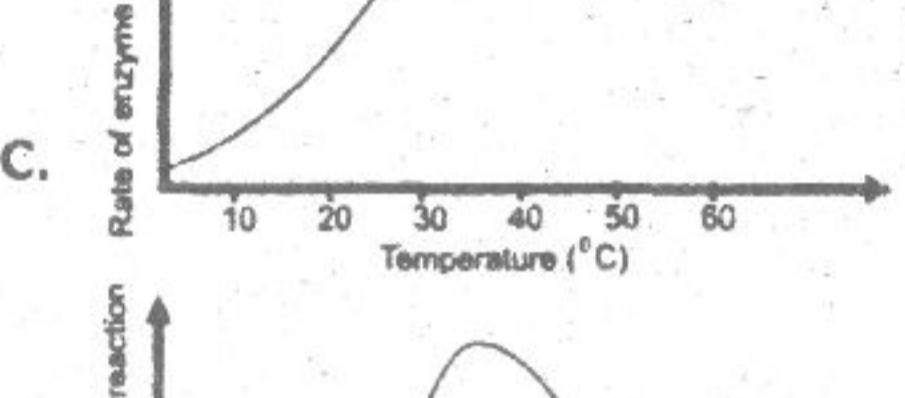
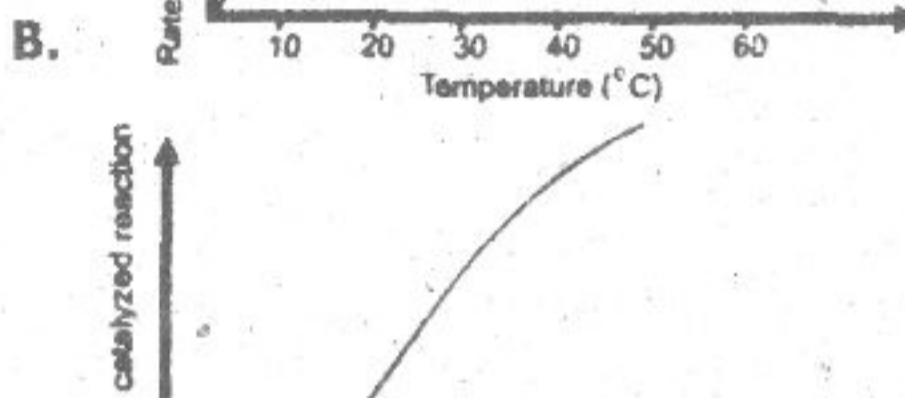
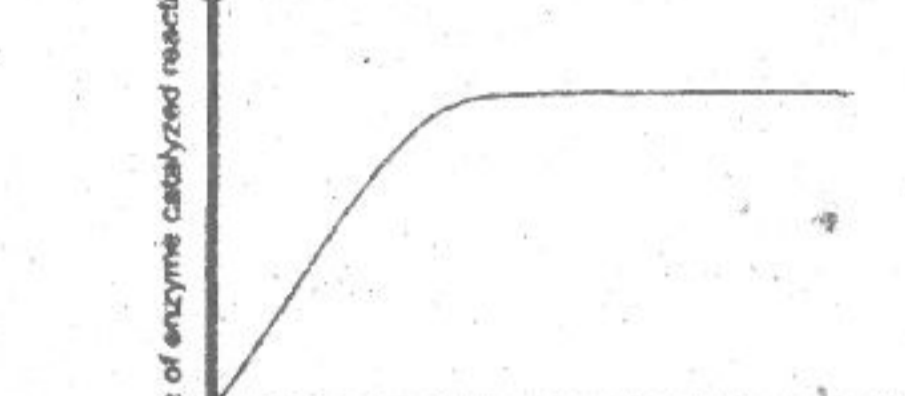
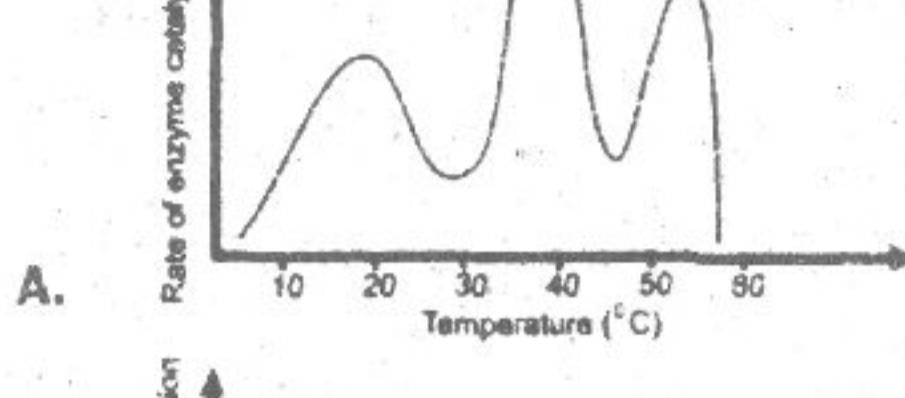
C. Peristalsis D. Digestion

iii. In which component of the leaf cells, chlorophyll is present?

A. Stroma B. Thylakoids

C. Plasma membrane D. Cytoplasm

iv. Which of these graphs correctly shows the effect of temperature on the rate of an enzyme-controlled reaction?



v. Between two mitotic divisions, the DNA of the cells is duplicated. When does get duplicate during meiosis I and meiosis II?

A. The DNA is duplicated between meiosis I and meiosis II

B. The DNA is not duplicated during meiosis I and meiosis II

C. The DNA is duplicated during meiosis I

D. The DNA is duplicated during meiosis II

vi. Ribosome's are constructed in the.

A. Endoplasmic reticulum

B. Nucleoid

C. Nucleolus

D. Nuclear pore

vii. Which sense does the Indus Dolphin use to find its prey?

A. Vision

B. Hearing

C. Smell

D. Touch

viii. A scientific theory has which of the following properties?

A. It agrees with available evidence

B. It cannot be rejected

C. It has been absolutely proven

D. It does not need to be altered in the light of new evidence

ix. Which of these major bioelements is in the highest percentage in protoplasm?

A. Carbon

B. Hydrogen

C. Oxygen

D. Nitrogen

x. Oxygen takes part in aerobic respiration in;

A. Glycolysis

B. Link step between glycolysis and Krebs cycle

C. Krebs cycle

D. Electron transport chain

xi. Which of the following is unique to mitosis and not a part of meiosis I?

A. Homologous chromosomes pair forming bivalents

B. Homologous chromosomes cross over

C. Chromosome pairs are broken during anaphase

D. Chromatids separate during anaphase

xii. Smooth endoplasmic reticulum is the area in a cell where are synthesized:

A. Polysaccharides

B. Proteins

C. Lipids

D. DNA

BIOLOGY SSC – I

Time allowed: 2:40 Hours

Total Marks = 53

Note: Sections 'B' and 'C' are to be answered on the separately provided answer book. Answer eleven the questions from section 'B' and attempt any two questions from section 'C' Use supplementary answer sheet i.e., sheet B if required. Write your answers neatly and legibly.

Section-B (Marks 33)

Q2. Attempt any ELEVEN parts. The answer to each part should not exceed 3 to 4 lines. (11 × 3 = 33)

i. What do you mean by horticulture and how is it related to agriculture?

ii. What are the contributions of Whittaker, Margulis and Shwartz in taxonomy?

iii. A never cell does not divide after its formation. In which phase of cell cycle it is ?

iv. Define the cohesion-tension theory?

v. How are taxonomy and systematic related?

vi. Why All biochemical catalysts are not proteins?

vii. What is the Optimum temperature for human body?

viii. In what ways the respiratory energy is used in the body of organisms?

ix. Which sphincters play role in the movement of food in and out of stomach?

x. Stomach is an organ of the digestive system, but it also secretes a Hormone. What hormone are it and what function it performs?

xi. What is the role of potassium ions in the opening of stomata?

xii. What are the two main types of white blood cell? How do they differ?

xiii. You see pus at the site of infection on your skin. How is it formed?

xiv. What role does the pericardial fluid play?

xv. What are the health risks if we take more saturated fatty acids in our diet?

Section – C (Marks 20)

Note: Attempt any TWO questions. (2 × 10 = 20)

Q3. a. Explain the phenomena involved in the passage of matter across cell membrane?

b. How would you state the events of prophase?

Q4. a. How would you define enzymes? Describe their characteristics.

b. What is the role of chlorophyll and light in photosynthesis?

Q5. a. Describe the structures and functions of the main regions of the alimentary canal?

b. How do different factors affect the rate of transpiration?