

Federal Board SSC-I (2016)

BIOLOGY SSC-I

SECTION – A (Marks 12)

Time Allowed: 20 minutes Total 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.

1. Circle the correct option i.e. A/B/C/D. Each part carries one mark.

(i) Which of these Bioelements is in the highest percentage in Protoplasm?

- A. Carbon B. Hydrogen
C. Oxygen D. Nitrogen

(ii) Who discovered the method of binomial nomenclature?

- A. Tourn Fort B. John Ray
C. E. Chatton D. Carolus Linnaeus

(iii) The Inner membrane of mitochondria forms many Infoldings which are called:

- A. Thylakoids B. Cristae
C. Stroma D. Granum

(iv) In which phase of Cell Cycle, the cell is preparing enzymes for Chromosome duplication.

- A. G1 phase B. G2 phase
C. S phase D. M phase

(v) How many molecules of CO_2 are produced when Krebs cycle operates once?

- A. 01 B. 02
C. 03 D. 06

(vi) Scurvy disease is caused by deficiency of:

- A. Vitamin A B. Vitamin B
C. Vitamin C D. Vitamin D

(vii) ATP was discovered by:

- A. Karl B. Calvin
C. Linnaeus D. Mendel

(viii) Genetics is the study of:

- A. Parasites B. Fossils
C. Genes D. Environment

(ix) In Stomach pepsinogen is converted into:

- A. Pepsin B. Bicarbonate
C. HCl D. Gastrin

(x) Celiac artery supplies blood to:

- A. Kidney B. Gonads
C. Thigh D. Digestive tract

(xi) National animal of Pakistan is:

- A. Tiger B. Markhor
C. Marcopolo Sheep
D. Houbara bustard

(xii) What category of molecules do enzymes belong to?

- A. Carbohydrates B. Lipids
C. Proteins D. Nucleic acid

BIOLOGY SSC-I

Time allowed: 2:40 Hours Total Marks Sections B and C: 53

NOTE:- Answer any eleven parts from Section 'B' and any two questions From Section 'C' on the separately provided answer book. 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) Define the following:
(a) Parasitology (b) Immunology
(c) Pharmacology
- (ii) It is difficult to use Criterion of inter breeding to define species of unicellular organisms. Why?
- (iii) Write the scientific name for:
(a) Orchid tree (b) House Crow
(c) Onion
- (iv) What are the contributions of Whittaker, Margulis and Schwarts in taxanomy?
- (v) Differentiate between Transmission Electron Microscope (TEM) and Scanning Electron Microscope (SEM).
- (vi) Write down the functions of Golgi Apparatus.
- (vii) Division of prokaryotes is not called mitosis. Why?
- (viii) What is meant by non-Disjunction?
- (ix) How are prosthetic groups different from coenzymes.
- (x) Differentiate between Aerobic and Anaerobic Respiration.
- (xi) Describe three uses of enzymes.
- (xii) Write functions of the following:
(a) WBCs (b) Platelets
- (xiii) Write a short note on Apoptosis.
- (xiv) Give structure and function of Xylem Tissue.
- (xv) Define the terms Systole and Diastole.

SECTION – C (Marks 20)

Note: Attempt any TWO questions. All questions carry equal marks. (2 × 10 = 20)

- Q. 3 a. Write the General Characteristics of the five Kingdoms (05)
b. How does Sodium-potassium pump show active Transport? (05)
- Q. 4 a. Define the following terms: (02+02+02)
(i) Peristalsis
(ii) Mastication
(iii) Bolus
b. Write a note on Alcoholic Fermentation. (04)
- Q. 5 a. How does human heart work as a double pump? Explain. (06)
b. Write short notes on:
(i) Kwashiorkor
(ii) Mersmus (04)