



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



Bachelor of Science (Semester 1) Internal Examination - 2024
US01MABOT01: Biomolecules and Cell-Biology

Date: 3rd October 2024, Thursday

Time: 11:00 AM to 12:30 PM

Total marks :30

Q-1 Multiple Choice Questions.

(06)

- (1) Which of the following is the most abundant biomolecule on the earth?
(a) Lipids (b) proteins (c) carbohydrate (d) none of these
- (2) Which of these is not a lipid?
(a) Proteins (b) waxes (c) oils (d) fats
- (3) Which nitrogenous base is not found in DNA?
(a) Thymine (b) Uracil (c) Guanine (d) all of these
- (4) What organism lacks cell-wall?
(a) Protozoa (b) plant-cells (c) algae (d) bacterial cells
- (5) The cell-theory is not applied for _____.
(a) Virus (b) algae (c) fungi (d) bacteria
- (6) Where does spindle fibres attach to during metaphase?
(a) Kinetochore of the chromosome (b) centromere of the chromosome
(c) telomere of the chromosome (d) none of these

Q-2 Define: Carbohydrate. Classify giving examples and write its biological functions. (06)

OR

- Q-2 (a) Classify amino acids based on R-group. (03)**
(b) Write a note on fatty acids. (03)

Q-3 Write biologically significant differences in DNA & RNA. (06)

OR

Q-3 Write a note enzyme classification. (06)



Q-4 (a) Differentiate between prokaryotic and eukaryotic cell. (03)

(b) Write the various functions of the plasma-membrane. (03)

OR

Q-4 Give an account of the morphology, ultrastructure and types of the chromosome. (06)

Q-5 What is cytoskeleton? Write a short note on it. (06)

OR

Q-5 (a) Draw a labelled diagram of: (i) Chloroplast (ii) Golgi apparatus (04)

(b) Explain: Mitochondria is a semi-autonomous organelle. (02)
