

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Cell Biology

Subject Code: 4SC01CEB1

Semester: 1

Date: 16/03/2019

Branch: B.Sc (All)

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1 Attempt the following questions: (14)

- a) Cell organelle which has electron transport system is centriole. True/False
- b) Function of Golgi bodies in plants is translocation of enzymes. True/False
- c) Cell membrane is composed of lipids and proteins. True/False
- d) Hydrolytic enzymes are abundant in microsomes. True/False
- e) Ribosomes are the center of protein synthesis. True/False
- f) Lysosome is a single membrane structure. True/False
- g) Extra nuclear DNA is found in ribosomes. True/False
- h) Cell theory was proposed by.....
- i) Semiautonomous organelle in the cell is.....
- j) The subunit of prokaryotic ribosomes is.....
- k) Plant cell wall mainly composed of.....
- l) The largest cell organelle is.....
- m) The unit of heredity is.....
- n) Chemical constitution of nucleus is

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- (a) Explain the respiratory chain mechanism in mitochondria (7)
- (b) Briefly describe the meiotic cell division. (7)

Q-3 Attempt all questions (14)

- (a) Write in detail about nucleus and its organelles. (7)
- (b) Explain the fluid mosaic model of plasma membrane. (7)

Q-4 Attempt all questions (14)

- (a) Discuss the major functions of ribosomes. (4)
- (b) Describe the process of phagocytosis. (3)
- (c) Explain the structure of bacterial cell wall. (7)

Q-5 Attempt all questions (14)

- (a) Write an essay on the history of cell biology. (7)



- (b) Bring out the functions of chloroplasts during day and night. (7)
- Q-6 Attempt all questions (14)**
- (a) Write a note on ultrastructure and chemical composition of plant cell wall. (7)
- (b) Discuss in detail the structure and functions of Golgi apparatus. (7)
- Q-7 Attempt all questions (14)**
- (a) Give ultrastructure, chemical composition, and function of chromosomes. (7)
- (b) Discuss the different mechanisms of transport across membranes. (7)
- Q-8 Attempt all questions (14)**
- (a) Describe the molecular mechanism of signal transduction? (7)
- (b) Write a detail account on cytoskeleton structures and their functions. (7)

