Rayat Shikshan Sanstha's
RAJARSHI CHHATRAPATI SHAHU COLLEGE
DEPARTMENT OF ZOOLOGY (2022-23)
B. SC. I, SEM -I
PAPER NO. II, Cell Biology and Evolutionary Biology
Question bank

Q.1) Select the correct alternative and rewrite the sentence.

1. The first compound microscope was built by …….., who used the term cell in 1665.
   a) Galileo b) Robert Hooke c) Loewy d) Leeuwenhoek
2. The……..is the heart of the cell .
   a) Nucleus b) Ribosomes c) Golgi complex d) Mitochondria
3. ..... are 'L' shaped chromosome having two unequal arms.
   a) Submetacentric b) Metacentric c) Acrocentric d) Telocentric
4. The number of chromosome in man is……
   a) 48 b) 47 c) 46 d) 45
5. ……. plays a role in the formation of acrosome during spermiogenesis.
   a) Golgi complex b) Nucleus c) Endoplasmic reticulum d) Mitochondria
6. The dinosaurs ruled the earth during ……. period.
   a) Jurassic b) Devonian c) Cambrian d) Permian
7. Under electron microscope the chromatin shows a 'string of beads' named as …….
   a) chromosomes b) nucleosomes c) somites d) genes
8. The fluid mosaic model of plasma membrane was proposed by.
   a) S. J. Singer and G. L. Nicolson b) Robert Hook c) Cook d) Darwin
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Q.2) Attempt of the following

1) Give an account of the functions of mitochondria.
2) Describe the theory of natural selection.
3) Give an account of ultrastructure of nucleus. Add a note on nuclear pore complex.
4) Give an account on morphology and a typical structure of a chromosome.
5) Describe the 'fluid mosaic model' of the plasma membrane.
6) Describe Miller-Urey experiment.

Q.3 Write short note on

1) Miller's experiment.
2) Ultrastructure of nucleus.
3) Structure of endoplasmic reticulum.
4) Cell theory.
5) Variation.
6) Typical structure of Chromosomes.
7) Struggle for existence.
8) Ultrastructure of nucleus.
9) Structure of nucleosome.
10) Major steps in chemical evolution.
11) Give a list of five major extinctions.
12) Types of Chromosomes.