

Day: Wednesday
Date: 25/04/2018

S-2018-0626

Time: 11.00 A.M. TO 02.00 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Neat diagrams must be drawn **WHEREVER** necessary.

Q.1 A) Attempt the following: (MCQ) (06)

- a) Mitosis means _____
 - i) Reduction division
 - ii) Equal division
 - iii) Triple function
 - iv) None of these
- b) Cell wall present in _____
 - i) Plant cells
 - ii) Animal cells
 - iii) Fungi cell
 - iv) Bacterium cell
- c) The organelle responsible for life on this planet is _____
 - i) Mitochondria
 - ii) DNA
 - iii) Nucleus
 - iv) Ribosomes
- d) In meiosis cell division _____ stages occur.
 - i) Three
 - ii) Four
 - iii) Two
 - iv) None
- e) Which of the following organelles lack.
 - i) Nucleus
 - ii) Endoplasmic reticulum
 - iii) Mitochondria
 - iv) Chloroplast
- f) _____ is the power house of cell.
 - i) Chloroplast
 - ii) Nucleus
 - iii) Mitochondria
 - iv) Endoplasmic reticulum

B) Attempt all the following: (one sentence/ statement/ definition) (06)

- a) Who describe as mitochondria in cell biology?
- b) What is apoptosis?
- c) Give functions of RNA.
- d) What is photosynthesis?
- e) Give any two functions of endoplasmic reticulum.
- f) What is centromere and telomeres?

Q.2 Attempt any **THREE** of the following: (12)

- a) Describe structure of endoplasmic reticulum.
- b) Give origin and types of ribosomes.
- c) Comment on 'Mitochondria are called power house of cell'.
- d) Explain stages of prophase-I in meiosis.

Q.3 Attempt any **FOUR** of the following: (12)

- a) Describe ultrastructure of chloroplast.
- b) Explain organization of cellulose in cell wall.
- c) Give the function of Golgi complex.
- d) Explain role ion channels and pump in cellular transport.
- e) Describe Daniell and Dawson model of plasma membrane.

Q.4 Attempt any **TWO** of the following: (12)

- a) What is cell division? Give the functions of meiosis.
- b) Describe any two stages in mitotic cell division.
- c) Explain micro bodies' peroxisomes and glyoxysomes.

Q.5 Attempt any **TWO** of the following: (12)

- a) Give function of Lysosomes.
- b) What is telomeres? Give its functions.
- c) Describe role of spindle apparatus in cell division.