

oct-2014

Seat Number

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कोकीळा - 034

BOTANY PAPER - II : BOT - 112
Cell Biology
(11146)

P. Pages : 3

Time : Two Hours

Max. Marks : 40

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Figures to the right indicate full marks.
6. Draw neat diagrams wherever necessary.

1. Solve any eight of the followings.

8

- a) Fungal cell wall is mainly composed of -----
 - i) Vitamins
 - ii) Chitin
 - iii) Fats
 - iv) Carbohydrates
- b) ----- is present only in plant cells.
 - i) cell membrane
 - ii) amitosis
 - iii) chloroplasts
 - iv) nucleus
- c) In mitosis ----- number of cells are formed.
 - i) one
 - ii) two
 - iii) three
 - iv) four
- d) Lysosomes are known as -----
 - i) Nucleosomes
 - ii) Ribosomes
 - iii) Suicide bags
 - iv) None of these

- e) Cell Biology deals with the study of -----
i) Nucleus ii) cell
iii) plastids iv) chromosome
- f) The nucleus was first time observed by -----
i) Robert Hook ii) Bauer
iii) Robert Brown iv) Virchow
- g) Which of the following is a part of Bacterial cell.
i) Nucleus ii) chloroplasts
iii) pili iv) Nucleolus
- h) Who proposed the fluid-mosaic model of cell membrane.
i) Nageli & Cramer ii) Singer & Nicolson
iii) Schleiden & Schwann iv) Robert Brown & F. Bauer
- i) Sub-metacentric chromosome is generally looking like -----
shaped.
i) V ii) L
iii) i iv) J
- j) The terminal part of chromosome is called -----
i) Satellite ii) telomere
iii) Centromere iv) none of these

2. Attempt any four of the followings.

8

- 1) Define protoplasm.
- 2) What is meiosis ?
- 3) Enlist the components of eukaryotic nucleus.
- 4) What is the function of vacuole ?
- 5) What is middle lamella ?
- 6) Give the types of Lysosomes.

3. Solve any two of the followings.

8

- 1) What are the functions of Ribosomes ?

- 2) What are plastids ? Give different with their functions.
- 3) Give important differences between prokaryotic & Eukaryotic cells.

4. a) Attempt any two.

6

- i) Describe the types of chromosomes based on position of centromere.
- ii) What is cell cycle ? Describe its various phases.
- iii) Give the significance of mitosis.

b) What is primary cellwall.

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5. Describe the types, morphology and ultrastructure of Endoplasmic Reticulum.

8

OR

Describe the Singer and Nicolson's model of plasma membrane.

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