

Seat Number

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खगोल - 017

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

P. Pages : 2

Time : Two Hours

Max. Marks : 40

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink 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) Which of the followings directs and controls all the activities of a cell.
 - i) Cell wall
 - ii) Nucleus
 - iii) Flagella
 - iv) Chloroplasts
- b) Rough Endoplasmic Reticulum possess on its wall.
 - i) Ribosomes
 - ii) Vesicles
 - iii) Pigments
 - iv) None of these
- c) Which of the following organelle functions as packing & forwarding center' of a cell.
 - i) Golgi complex
 - ii) Endoplasmic reticulum
 - iii) Nucleus
 - iv) Cell wall
- d) Who proposed the cell theory?
 - i) Singer & Nicolson
 - ii) Schleiden & Schwann
 - iii) Nageli & Cramer
 - iv) R. Brown & R. Hook.
- e) 'Suicide bags' are commonly known as.....
 - i) Ribosomes
 - ii) Lysosomes
 - iii) Vacuoles
 - iv) Plastids
- f) In prokaryotic cells..... is absent.
 - i) Nuclear membrane
 - ii) Flagella
 - iii) plasma membrane
 - iv) asexual reproduction

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- g) Golgi apparatus was first time observed by.....
 i) K. R. Porter ii) Camillo Golgi
 iii) Robertson iv) George Palade
- h) Which cell division take place in somatic cells?
 i) Meiosis ii) Mitosis
 iii) Binary fusion iv) None of these
- i) Thyllakoids are saclike bodies found in.....
 i) Chloroplasts ii) Leucoplasts
 iii) Chromoplasts iv) All of these
- j) Telocentric chromosomes generally looks like..... shaped.
 i) J ii) V
 iii) i iv) L

2. Attempt **any four** of the followings. 8
 i) What is secondary cell wall?
 ii) What is amitosis?
 iii) Give the chemical composition of cell membrane.
 iv) Define Heterochromatin.
 v) Enlist various types of plastids.
 vi) Describe the structure of Rough Endoplasmic Reticulum.
3. Attempt **any two** of the followings. 8
 i) Give few important functions of Golgi Complex.
 ii) What are Lysosomes? Give its types.
 iii) Enlist the stages of meiosis.
4. a) Attempt **any two**. 6
 i) Describe the ultrastructure of Nucleus.
 ii) Give the chemical composition of cell wall.
 iii) Describe the structural organization of chromosome.
- b) Define telomeres. 2
5. Describe the Mitochondria with respect to shape, size, number and ultrastructure. 8

OR

Describe the functions of Nucleus.
