BIOLOGY

BOOKS - EVERGREEN BIOLOGY (ENGLISH)

SPECIMEN QUESTION PAPER (BIOLOGY)

Section I

1. A pair of corresponding chromosomes of the same shape and size but one from each parent.

A. Autosomes

B. Sex chromosomes

C. Homologous chromosomes

D. Analogous chromosomes

Answer: C

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2. The factor that does not affect the rate of transpiration.

A. Intensity of light

B. Velocity of wind

C. Carbon dioxide

D. Oxygen

Answer: D

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3. Movement of molecules of a substance from their higher concentration to lower concentration when they are in direct contact.

A. Diffusion

B. Endosmosis

C. Imbibition

D. Active transport

Answer: A

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4. The complex molecule consisting of a DNA strand and a core of histones.

A. Centrosome

B. Nucleotide

C. Nucleosome

D. Chromosome

Answer: C

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5. The solvent used to dissolve the chlorophyll pigment while testing a leaf for starch.

A. Soda lime

B. Carbolic acid

C. Methylated spirit

D. Water

Answer: C

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6. During Meiosis _____ daughter cells are formed

A. 4

B. 2

C. 8

D. 6

Answer: A

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7. Wooden doors swell up during the rainy season due to _____

A. Osmosis

B. Diffusion

C. Imbibition

D. Transpiration

Answer: C

View Text Solution

8. The semi permeable membrane in a plant cell is the _____

A. Cell wall

B. Cell membrane

C. Tonoplast

D. None of the above

Answer: B

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9. Guttation takes place through ____

A. Stomata

B. Lenticels

C. Cuticle

D. Hydathodes

Answer: D

View Text Solution

10. A plant with variegated leaves is __

A. Coleus

B. Lotus

C. Peepal

D. Mango

Answer: A

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11. The pressure exerted by the cell contents on the cell wall:

A. Turgor pressure

B. Partial pressure

C. Wall pressure

D. Osmotic pressure

Answer: A

View Text Solution

12. The cell component visible only during cell division:

A. Chromosome

B. Chromoplast

C. Chromatin

D. Centriole

Answer: A

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13. Marine fish when placed under tap water bursts, because of:

A. Endosmosis

B. Exosmosis

C. Diffusion

D. Plasmolysis

Answer: A

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14. The sites of dark reaction of photosynthesis:

A. Grana

B. Fret

C. Stroma

D. Stoma

Answer: C

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15. The alternative forms of the same gene occupying the same position on homologous chromosomes:

A. Chromatids

B. Alleles

C. Autosomes

D. Centromere

Answer: B

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Section Ii

1. Explain the Osmosis

A. Movement of water from their lower concentration to their higher concentration through a semipermeable membrane.

B. Movement of solutes from their lower concentration to their higher

concentration through a semi permeable membrane.

C. Movement of water from their higher concentration to their lower concentration through a semi permeable membrane.

D. Movement of water from their higher concentration to their lower concentration through a freely permeable membrane.

Answer: A

View Text Solution

2. Explain the Photolysis

A. Splitting of water molecules into hydrogen ions and oxygen in the presence of light in grana.

B. Splitting of water molecules into hydrogen ions and oxygen in the

presence of light in the stroma.

C. Splitting of water molecules into hydrogen ions and oxygen in the absence of light in grana.

D. Splitting of water molecules into hydrogen ions and oxygen in the absent of light in stoma.

Answer: A

View Text Solution

3. Explain the Law of segregation

A. The two members of a pair of factors join during the formation of gametes.

B. The two members of a pair of factors separate during the formation of gametes.

C. The two chromosomes of a pair of factors separate during the formation of gametes.

D. The two members of a pair of factors separate during the process of germination.

Answer: B

View Text Solution

4. Explain the Guttation

A. The loss of water in the form of water droplets from the surface of the leaf.

B. The loss of water in the form of water droplets through the stomata.

C. The loss of water in the form of water vapour along the leaf margin.

D. The loss of water in the form of water droplets along the leaf margin.

Answer: D

View Text Solution

5. Explain the Active transport

A. Passage of water from its lower to higher concentration through a cell membrane without any expenditure of energy.

B. Passage of ions from its lower to higher concentration through a cell membrane without any expenditure of energy.

C. Passage of water from its lower to higher concentration through a cell membrane using energy from the cell.

D. Passage of ions from its lower to higher concentration through a cell membrane using energy from the cell.

Answer: D

View Text Solution

6. State the exact location of the Spindle fibres

A. Between the two centrioles

B. Between the two centrosomes

C. Between chromatid and centromere

D. Between two centromeres

Answer: A

View Text Solution

7. State the exact location of the Root hair

A. Extension of the cortex

B. Extension of epithelium

C. Extension of epidermis

D. Extension of endodermis

Answer: A

View Text Solution

8. State the exact location of the Stomata

A. More the upper surface of dorsi ventral leaves

B. More on the lower surface of the dorsi ventral leaves

C. Both upper and lower surface of the dorsi ventral leaves

D. None of the above.

Answer: B

View Text Solution

9. State the exact location of the Thylakoids

A. In the inner membrane of the chloroplast

B. Wall of the chloroplast

C. In the chlorophyll

D. In the stroma of the chloroplast

Answer: D

View Text Solution

10. State the exact location of the Palisade parenchyma

A. Between the upper and lower epidermis of dicot leaves.

B. Between the upper epidermis and spongy parenchyma of dicot leaves.

C. Between the lower epidermis and spongy parenchyma of dicot leaves.

D. Between the upper and lower epidermis of monocot leaves.

Answer: B

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11. State the function of the Stroma

A. Site of photolysis of photosynthesis

B. Site of photochemical phase of photosynthesis

C. Site of light dependent phase of photosynthesis

D. Site of light independent phase of photosynthesis

Answer: D

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12. State the function of the Guard cells

A. Regulate the closing of stomata

B. Regulate the opening and closing of stomata

C. Regulate the opening of stomata

D. Regulate the process of photosynthesis

Answer: B

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13. State the function of the Xylem

A. Translocation of food from the leaves to the other parts of the plant.

B. Conduction of food.

C. Conduction of water and food.

D. Conduction of water and minerals from the root to the other parts of the plant.

Answer: D

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14. State the function of the Chromosomes

A. The carriers of heredity

B. The controlling centre of the cell

C. The site for various chemical reactions

D. Intracellular digestion.

Answer: A

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15. State the function of the Hydathode

A. Helps in transpiration

B. Helps in guttation

C. Helps in imbibition

D. Helps in transportation of water

Answer: B

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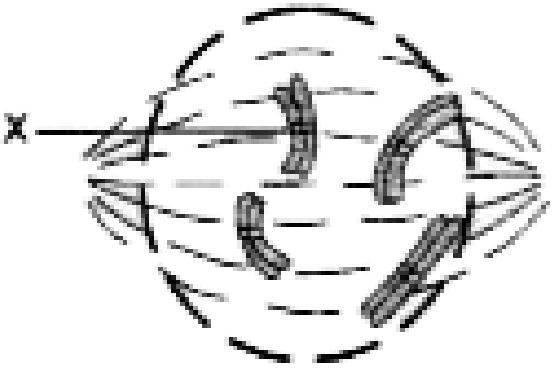
Section Iii

1. Given below is a diagram representing a stage during mitotic cell division. Answer the questions that follow:



Identify the stage

A. Telophase

B. Prophase

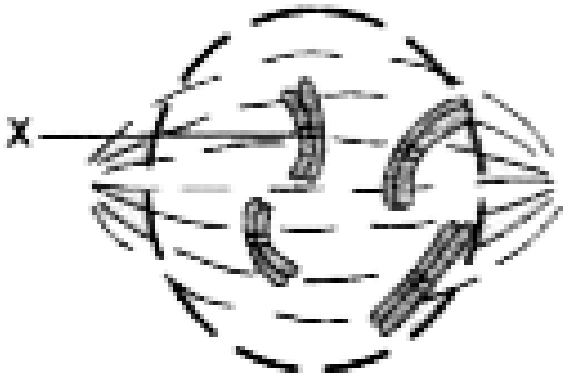
C. Metaphase

D. Anaphase

Answer: B

View Text Solution

2. Given below is a diagram representing a stage during mitotic cell division. Answer the questions that follow:



Label part marked 'X'

A. Centriole

B. Centrosome

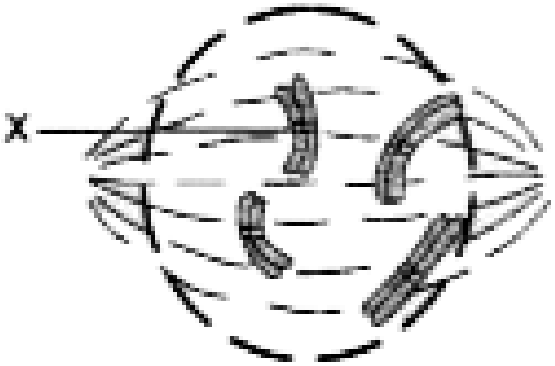
C. Centromere

D. Chromatid

Answer: C

View Text Solution

3. Given below is a diagram representing a stage during mitotic cell division. Answer the questions that follow:



Name the stage that follows the one shown here

A. Interphase

B. Anaphase

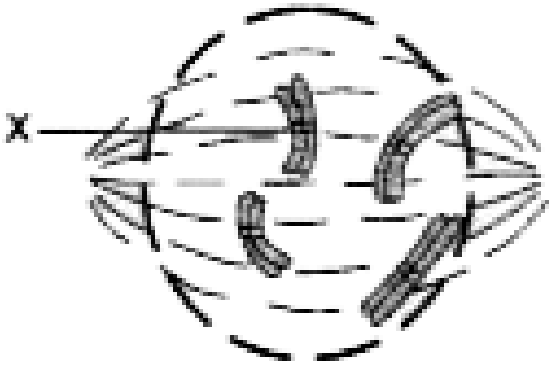
C. Telophase

D. Metaphase

Answer: D

View Text Solution

4. Given below is a diagram representing a stage during mitotic cell division. Answer the questions that follow:



What is the diploid number of chromosomes shown in the diagram?

A. 6

B. 2

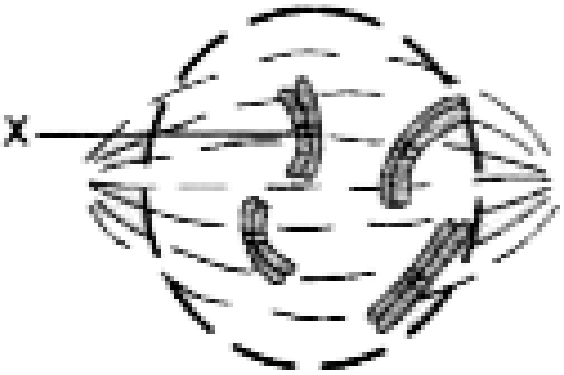
C. 4

D. 8

Answer: C

View Text Solution

5. Given below is a diagram representing a stage during mitotic cell division. Answer the questions that follow:



Mention one important feature of this stage

A. Nucleolus reappears

B. Nuclear membrane reappears

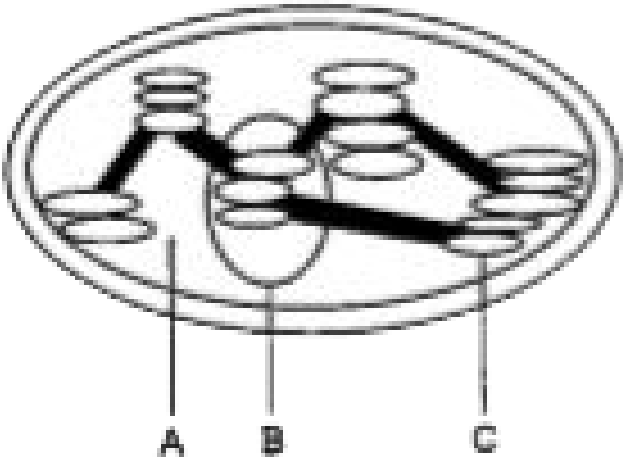
C. Nuclear membrane disappears

D. Chromosomes align on the equator

Answer: C

View Text Solution

6. Observe the diagram given below and answer the questions:



Identify the cell organelle

A. Mitochondria

B. Lysosome

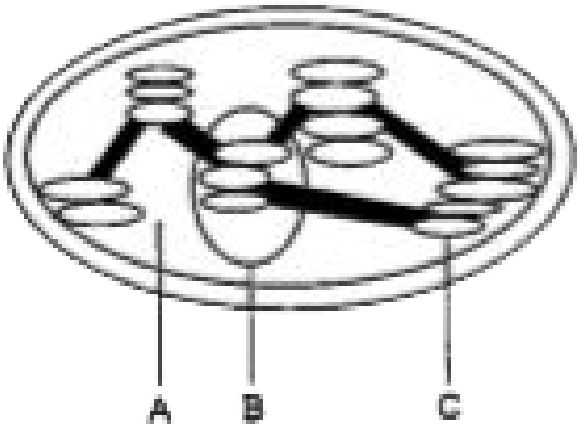
C. Ribosome

D. Chloroplast

Answer: D

View Text Solution

7. Observe the diagram given below and answer the questions:



Label the parts marked A, B & C

A. A-Granum B-Stroma C-Thylakoid

B. A-Stroma B-Granum C-Thylakoid

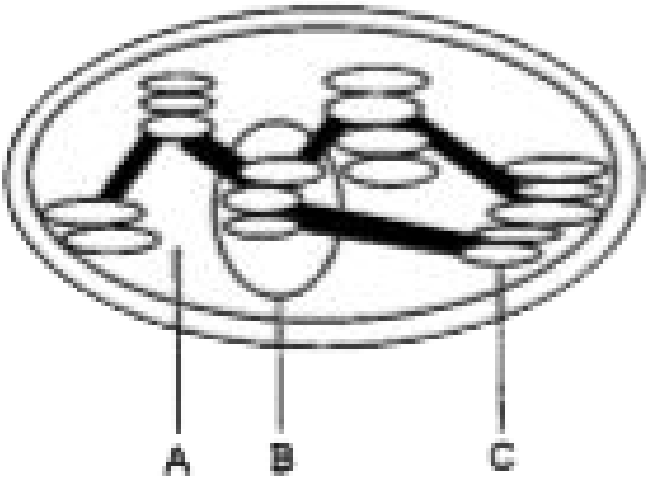
C. A-Thylakoid B-Stroma C-Granum

D. none of these

Answer: B

View Text Solution

8. Observe the diagram given below and answer the questions:



The unit of light absorbed by chlorophyll is _____

A. Proton

B. Photon

C. Electron

D. Neutron

Answer: B

View Text Solution

Section I

1. A pair of corresponding chromosomes of the same shape and size but one from each parent.

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B. Sex chromosomes

C. Homologous chromosomes

D. Analogous chromosomes

Answer: C

View Text Solution

2. The factor that does not affect the rate of transpiration.

A. Intensity of light

B. Velocity of wind

C. Carbon dioxide

D. Oxygen

Answer: D

View Text Solution

3. Movement of molecules of a substance from their higher concentration to lower concentration when they are in direct contact.

A. Diffusion

B. Endosmosis

C. Imbibition

D. Active transport

Answer: A

View Text Solution

4. The complex molecule consisting of a DNA strand and a core of histones.

A. Centrosome

B. Nucleotide

C. Nucleosome

D. Chromosome

Answer: C

View Text Solution

5. The solvent used to dissolve the chlorophyll pigment while testing a leaf for starch.

A. Soda lime

B. Carbolic acid

C. Methylated spirit

D. Water

Answer: C

View Text Solution

6. During Meiosis _____ daughter cells are formed.

A. 4

B. 2

C. 8

D. 6

Answer: A

View Text Solution

7. Wooden doors swell up during the rainy season due to _____

A. Osmosis

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D. Transpiration

Answer: C

View Text Solution

8. The semi permeable membrane in a plant cell is the _____

A. Cell wall

B. Cell membrane

C. Tonoplast

D. None of the above

Answer: B

View Text Solution

9. Guttation takes place through _____

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B. Lenticels

C. Cuticle

D. Hydathodes

Answer: D

View Text Solution

10. A plant with variegated leaves is _____

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B. Lotus

C. Peepal

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View Text Solution

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View Text Solution

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View Text Solution

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View Text Solution

14. The sites of dark reaction of photosynthesis:

A. Grana

B. Fret

C. Stroma

D. Stoma

Answer: C

View Text Solution

15. The alternative forms of the same gene occupying the same position on homologous chromosomes:

A. Chromatids

B. Alleles

C. Autosomes

D. Centromere

Answer: B

View Text Solution

Section Ii

1. Explain the Osmosis

A. Movement of water from their lower concentration to their higher concentration through a semi permeable membrane.

B. Movement of solutes from their lower concentration to their higher concentration through a semi permeable membrane.

C. Movement of water from their higher concentration to their lower

concentration through a semi permeable membrane.

D. Movement of water from their higher concentration to their lower concentration through a freely permeable membrane.

Answer: A

View Text Solution

2. Explain the Photolysis

A. Splitting of water molecules into hydrogen ions and oxygen in the presence of light in grana.

B. Splitting of water molecules into hydrogen ions and oxygen in the presence of light in the stroma.

C. Splitting of water molecules into hydrogen ions and oxygen in the

absence of light in grana.

D. Splitting of water molecules into hydrogen ions and oxygen in the absent of light in stoma.

Answer: A

View Text Solution

3. Explain the Law of segregation

A. The two members of a pair of factors join during the formation of gametes.

B. The two members of a pair of factors separate during the formation of gametes.

C. The two chromosomes of a pair of factors separate during the formation of gametes.

D. The two members of a pair of factors separate during the process of

germination

Answer: B

View Text Solution

4. Explain the Guttation

A. The loss of water in the form of water droplets from the surface of the leaf.

B. The loss of water in the form of water droplets through the stomata.

C. The loss of water in the form of water vapour along the leaf margin.

D. The loss of water in the form of water droplets along the leaf margin

Answer: D

View Text Solution

5. Explain the Active transport

A. Passage of water from its lower to higher concentration through a cell membrane without any expenditure of energy.

B. Passage of ions from its lower to higher concentration through a cell membrane without any expenditure of energy.

C. Passage of water from its lower to higher concentration through a cell membrane using energy from the cell.

D. Passage of ions from its lower to higher concentration through a cell membrane using energy from the cell.

Answer: D

View Text Solution

6. State the exact location of the Spindle fibres

A. Between the two centrioles

B. Between the two centrosomes

C. Between chromatid and centromere

D. Between two centromeres

Answer: A

View Text Solution

7. State the exact location of the Root hair

A. Extension of the cortex

B. Extension of epithelium

C. Extension of epidermis

D. Extension of endodermis

Answer: A

View Text Solution

8. State the exact location of the Stomata

A. More the upper surface of dorsi ventral leaves

B. More on the lower surface of the dorsi ventral leaves

C. Both upper and lower surface of the dorsi ventral leaves

D. None of the above

Answer: B

View Text Solution

9. State the exact location of the Thylakoids

A. In the inner membrane of the chloroplast

B. Wall of the chloroplast

C. In the chlorophyll

D. In the stroma of the chloroplast

Answer: D

View Text Solution

10. State the exact location of the Palisade parenchyma

A. Between the upper and lower epidermis of dicot leaves

B. Between the upper epidermis and spongy parenchyma of dioot leaves

C. Between the lower epidermis and spongy parenchyma of dicot leaves.

D. Between the upper and lower epidermis of monocot leaves.

Answer: B

View Text Solution

11. State the Stroma

A. Site of photolysis of photosynthesis

B. Site of photochemical phase of photosynthesis

C. Site of light dependent phase of photosynthesis

D. Site of light independent phase of photosynthesis

Answer: D

View Text Solution

12. State the Guard cells

A. Regulate the closing of stomata

B. Regulate the opening and closing of stomata

C. Regulate the opening of stomata

D. Regulate the process of photosynthesis

Answer: B

View Text Solution

13. State the Xylem

A. Translocation of food from the leaves to the other parts of the plant.

B. Conduction of food.

C. Conduction of water and food.

D. Conduction of water and minerals from the root to the other parts of the plant

Answer: D

View Text Solution

14. State the Chromosomes

A. The carriers of heredity

B. The controlling centre of the cell

C. The site for various chemical reactions

D. Intracellular digestion.

Answer: A

View Text Solution

15. State the Hydathode

A. Helps in transpiration

B. Helps in guttation

C. Helps in imbibition

D. Helps in transportation of water

Answer: B

View Text Solution

16. Given below is a diagram representing a stage during mitotic cell division Answer the questions that follow:

Identify the stage

A. Telophase

B. Prophase

C. Metaphase

D. Anaphase

Answer: B

View Text Solution

17. Given below is a diagram representing a stage during mitotic cell division Answer the questions that follow:

Label part marked 'X'

A. Centriole

B. Centrosome

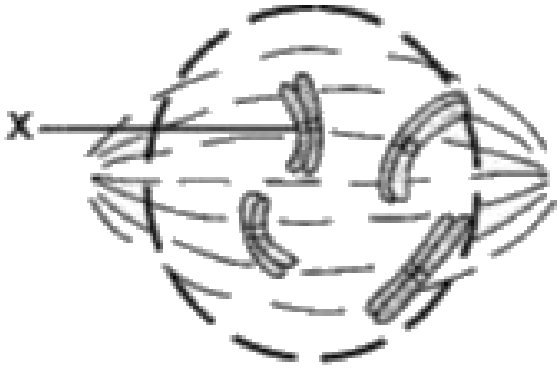
C. Centromere

D. Chromatid

Answer: C

View Text Solution

18. Given below is a diagram representing a stage during mitotic cell division Answer the questions that follow:



Name the stage that follows the one shown here

A. Interphase

B. Anaphase

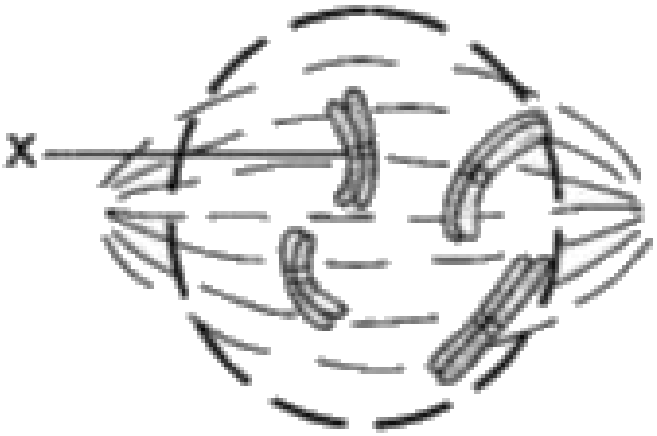
C. Telophase

D. Metaphase

Answer: D

View Text Solution

19. Given below is a diagram representing a stage during mitotic cell division Answer the questions that follow:



What is the diploid number of chromosomes shown in the diagram?

A. 6

B. 2

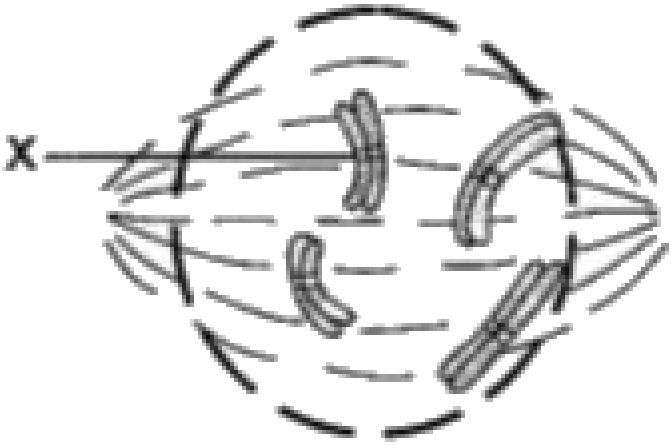
C. 4

D. 8

Answer: C

View Text Solution

20. Given below is a diagram representing a stage during mitotic cell division Answer the questions that follow:



Mention one important feature of this stage

A. Nucleolus reappears

B. Nuclear membrane reappears

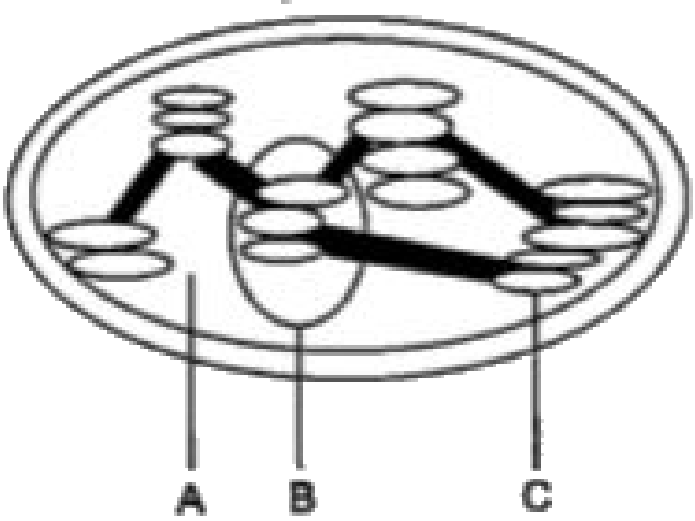
C. Nuclear membrane disappears

D. Chromosomes align on the equator

Answer: C

View Text Solution

21. Observe the diagram given below and answer the questions:



Identify the cell organelle

A. Mitochondria

B. Lysosome

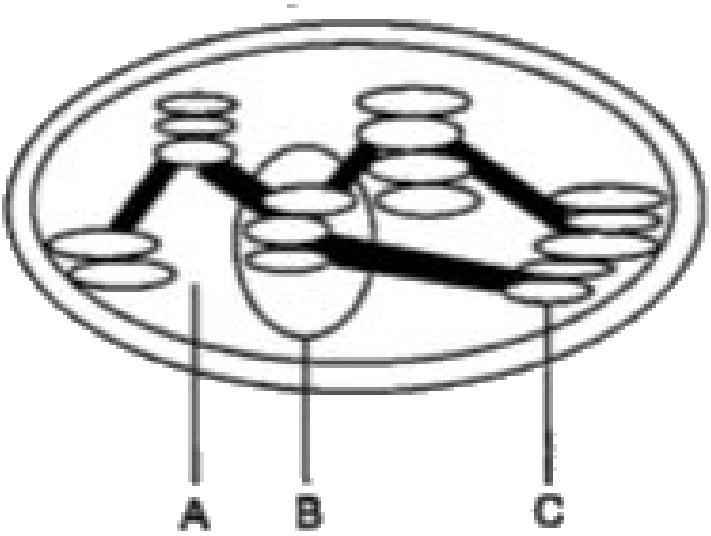
C. Ribosome

D. Chloroplast

Answer: D

View Text Solution

22. Observe the diagram given below and answer the questions:



Label the parts marked A, B & C

A. 1. Granum 2. Stroma 3. Fret 4. Thylakoid

B. 1. Graniumi 2. Stroma 3. Fret 4. Thylakoid

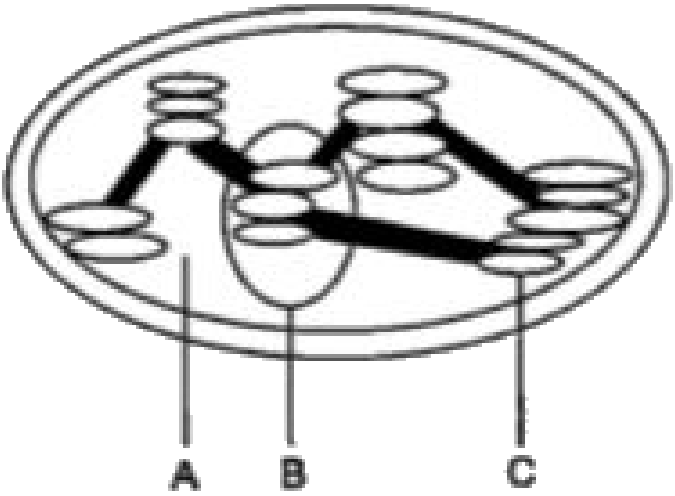
C. 1. Granum 2. Stroma 3. Fret 4. Thylakoid

D. none of these

Answer:

View Text Solution

23. Observe the diagram given below and answer the questions:



The unit of light absorbed by chlorophyll is _____

A. Proton

B. Photon

C. Electron

D. Neutron

Answer: B

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