

NEET UG (2024)
Biology
Quiz-2
(BOTANY)

SECTION - A

101. Select **incorrect** match

- (1) Steroidal hormones-SER
- (2) Hydrolases -Lysosomes
- (3) Aerobic respiration -Mitochondria
- (4) Single membrane-Ribosome

102. What is **true** about mesosomes?

- (1) Help in cell wall formation
- (2) Help in cellular respiration
- (3) Help in DNA replication
- (4) All of the above

103. Which of these is mis-matched?

- (1) Amyloplasts – Store protein granules
- (2) Elaioplasts – Store oils or fats
- (3) Capsule – Thick and tough glycocalyx
- (4) Golgi bodies – Formation of glycolipids and glycoproteins.

104. Shape of mesosomes is/are?

- (1) Tubular
- (2) Vesicles
- (3) Lamellae
- (4) All of the above

- 105.** Structure present in all bacteria
- (1) Plasmid
 - (2) Chromatophore
 - (3) Cell membrane
 - (4) Flagella
- 106.** Consider the following statement.
- (I)** Ribosome composed of RNA and protein
(II) Cell wall of algae have galactan and mannan
(III) ER and Golgi complex are not part of endomembrane system
(IV) Mitochondria show division by fission
- (1) Only I correct
 - (2) Only I, II, IV are correct
 - (3) Only III, IV are correct
 - (4) All are correct
- 107.** The hydrophobic tails of a phospholipid bilayer are oriented towards the:
- (1) Interior of the plasma membrane
 - (2) Extracellular fluid surrounding the cell
 - (3) Cytoplasm of the cell
 - (4) Nucleus of the cell
- 108.** A molecule that can diffuse freely through a phospholipid bilayer is probably:
- (1) Water soluble
 - (2) Non-polar
 - (3) Positively charged
 - (4) Negatively charged
- 109.** The layer joining the primary walls of the two adjacent cells is known as:
- (1) Plasmodesmata
 - (2) Middle lamella
 - (3) Cytoplasm
 - (4) Protoplast
- 110.** Mark the **correct** statement.
- (1) Mitochondria have linear dsDNA
 - (2) Leucoplast show variation in shape and size with stored nutrients
 - (3) Quasi-fluid nature of membrane prevents lateral movement of protein
 - (4) Primary wall of plant cell is not capable to grow
- 111.** Vacuoles of plants are separated from cytoplasm by a membrane called:
- (1) Protoplast
 - (2) Cytoplasm
 - (3) Chloroplast
 - (4) Tonoplast
- 112. S-I-** Perinuclear space is 10nm to 50 nm
S-II- Secondary constrictions are stained with basic dye
- (1) Only S-I is correct
 - (2) Only S-II is correct
 - (3) Both S-I and S-II are correct
 - (4) Both S-I and S-II are wrong
- 113.** Which of the following cell organelles is enclosed by a double membrane?
- (1) Ribosome
 - (2) Lysosome
 - (3) Mitochondria
 - (4) Both (1) and (3)
- 114.** Inside chloroplast space limited by inner membrane of chloroplast is—
- (1) Thylakoid lumen
 - (2) Stroma
 - (3) Thylakoid
 - (4) None of these
- 115.** Svedberg constant is —
- (1) Direct measure of size and density
 - (2) Indirect measure of size and density
 - (3) Measure weight in gram
 - (4) Measure shape
- 116.** Consider the following statement.
- A.** Cis face of golgi complex located towards ER
B. Trans face of golgi complex located towards nucleus
- How many is/are **correct**?
- (1) Only A
 - (2) Only B
 - (3) Both correct
 - (4) Both wrong
- 117.** Match the following.
- (A)** Pili – Made up of special protein
(B) RER – Involve in protein synthesis
(C) Nucleolus – rRNA factory
- How many is/are **correctly** matched.
- (1) Only (A) and (C)
 - (2) Only (B)
 - (3) All three
 - (4) Only (B) and (C)
- 118.** Which is common about nucleoid and inclusion bodies?
- (1) Presence in eukaryotic cell
 - (2) Present in bacteria
 - (3) For storage
 - (4) Made up of protein only
- 119.** A single membrane bounded cell organelle whose enzymes are functional at acidic pH is
- (1) Not related to endomembrane system
 - (2) Contains acid hydrolases
 - (3) Cannot digest nucleic acids
 - (4) Both (1) and (3)

- 120.** Plastids which give specific & distinct colours to the plants are known as
 (1) Leucoplast (2) Chromoplasts
 (3) Elaioplasts (4) Aleuoplasts
- 121.** Which of the following is **not** feature of plant cell wall?
 (1) Protects the cell from bursting
 (2) Provides barrier to undesirable macromolecules
 (3) Protect the cells from infections
 (4) Involves in active transport of materials
- 122.** In metacentric chromosome, the centromere is located.
 (1) At the middle of chromosome
 (2) Slightly away from the middle of chromosome
 (3) Close to one end of chromosome
 (4) At the end of the chromosome
- 123.** Sometimes few chromosomes have non-staining secondary constriction at a constant location. This gives the appearance of a small fragment called.....
 (1) Short arm (2) Satellite
 (3) Kinetochore (4) Telomere`
- 124.** Mark the **correctly** matched
 (1) Mitochondria - Thylakoid
 (2) Chloroplast- Cristae
 (3) SER – Lipid synthesis
 (4) Ribosome – rRNA and lipid
- 125.** Plant cell wall is made up of
 (1) Cellulose, hemicellulose and CaCO_3
 (2) Hemicellulose, and CaCO_3
 (3) Cellulose, hemicellulose, protein and pectin
 (4) All of the above
- 126.** Membrane bound minute vesicles that contain various enzymes are present in both plant and animal cells called:
 (1) Chloroplast
 (2) Centrosome
 (3) Microbodies
 (4) Mesosomes
- 127.** Organelle important in spindle formation during nuclear division is:
 (1) Centriole
 (2) Golgi body
 (3) Chloroplast
 (4) Mitochondrion
- 128.** Mark the **correct** statement.
 (A) Inclusion bodies lie free in cytoplasm
 (B) Fimbriae use for binding on host tissue
 (C) Chromatophore have pigments
 Mark the correct
 (1) Only (A) and (B)
 (2) Only (B) and (C)
 (3) All are correct
 (4) Only (A) and (C)
- 129.** Fluid mosaic model was proposed by
 (1) Camillo
 (2) Flemming
 (3) Singer and Nicolson
 (4) George Palade
- 130.** Assembly of 60S and 40S subunits of ribosome produces:
 (1) 80S (2) 70S
 (3) 50S (4) 100S
- 131.** Ribosomes take part in protein synthesis in:
 (1) Viruses
 (2) Prokaryotes only
 (3) Both prokaryotes and eukaryotes
 (4) Eukaryotes only
- 132.** 9 + 2 arrangement of microtubules is observed in
 (1) Eukaryotic flagella
 (2) Prokaryotic flagella
 (3) Centrioles
 (4) Both (1) and (2)
- 133.** **Assertion (A):** Mitochondria and chloroplast are semi-autonomous organelles
Reason (R): They contain their own DNA but lack protein synthesizing machinery.
 (1) Both Assertion & Reason are true and the reason is the correct explanation of the assertion.
 (2) Both Assertion & Reason are true but the reason is not the correct explanation of the assertion.
 (3) Assertion is true statement but Reason is false.
 (4) Both Assertion and Reason are false statements
- 134.** In the chromoplasts _____ carotenoid pigments are present.
 Select the **correct** option to fill in the blank.
 (1) Fat soluble
 (2) Fat insoluble
 (3) Water soluble
 (4) None of these

135. Which of the following is an inclusion body found in prokaryotes?
- (1) Glycogen granule
 - (2) Phosphate granule
 - (3) Cyanophycean granule
 - (4) All of these

SECTION - B

136. Select the option accordingly.

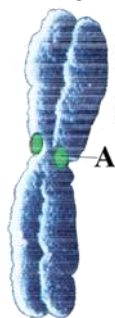
P. In prokaryotes, ribosomes are associated with the plasma membrane of the cell

Q. Several ribosomes on a single mRNA form a structure called polysome

R. Polysome translates the protein into mRNA

- | | P | Q | R |
|-----|----------|----------|----------|
| (1) | T | F | T |
| (2) | F | T | T |
| (3) | T | F | F |
| (4) | T | T | F |

137. Choose the **correct** option regarding indicated by label **A** in the given diagram.



- (1) Disc shaped structure called kinetochore
- (2) Present on the sides of centromere
- (3) Primary constriction called kinetochore
- (4) Both (1) and (2)

138. **Assertion (A):** In bacteria, resistance to antibiotics is conferred by Plasmid DNA.

Reason (R): Plasmid DNA confers certain unique phenotypic characters to bacteria.

- (1) Both Assertion & Reason are true and the reason is the correct explanation of the assertion.
- (2) Both Assertion & Reason are true but the reason is not the correct explanation of the assertion.
- (3) Assertion is true statement but Reason is false.
- (4) Both Assertion and Reason are false statements

139. Which of the following is/are modification of the cell membrane?

- (1) Mesosomes
- (2) Chromatophore
- (3) Inclusion body
- (4) Both (1) and (2)

140. The enzymes required for the synthesis of carbohydrates and proteins are located in _____ of chloroplasts

- (1) Thylakoid
- (2) Grana
- (3) Stroma
- (4) Stroma lamella

141. “*Omnis cellula e cellula*” term was given by

- (1) Schleiden
- (2) Schleiden and Schwann
- (3) Schwann
- (4) Virchow

142. Bacterial cells may be motile or non-motile. If motile, they have thin **__P__** extensions from their cell wall called **__Q__**

Select the option which correctly fill the blanks P and Q

- | P | Q |
|------------------------|----------|
| (1) Filamentous | Fimbriae |
| (2) Filamentous | Flagella |
| (3) Elongated tubular | Pilli |
| (4) Small Bristle like | Flagella |

143. Which is **incorrect** about cilia?

- (1) Small structures work like oars.
- (2) It is hair like outgrowth of cell wall
- (3) Cilia cause the movement of either the cell or the surrounding fluid
- (4) Cilia are covered with plasma membrane

144. Which of the following is found in animal cells?

- (1) Microbodies
- (2) Cell wall
- (3) Chromoplast
- (4) Leucoplast

145. The primary cell wall of a young plant cell is/has:

- (1) Secondary wall on outer side
- (2) Made of calcium pectate
- (3) Calcium carbonate deposition
- (4) Capable of growth

146. Mango belongs to this order

- (1) Anacardiales
- (2) Poales
- (3) Sapindales
- (4) Polymoniales

147. Sapindales and Poales both belongs to

- (1) Same class
- (2) Same order
- (3) Same family
- (4) Different class

- 148.** Plant nomenclature means -
- (1) To give names to plants without any rules
 - (2) Nomenclature of plants under the international rules
 - (3) Nomenclature of plants in local language
 - (4) Nomenclature of plants in english language

- 149.** The binomial system of nomenclature have all true, **except**

- (1) Genus starts with capital letter
- (2) Name of author is written in italics
- (3) Printed in italics for both genus and species
- (4) Name of author is written after specific epithet

- 150.** Related families belong to the same

- (1) Species
- (2) Variety
- (3) Order
- (4) Genus

(ZOOLOGY)

SECTION - A

- 151.** A blood capillary is made up of which epithelium?

- (1) Simple cuboidal
- (2) Simple columnar
- (3) Simple squamous
- (4) Compound epithelium

- 152.** Tubular parts of nephron contain:

- (1) Simple columnar epithelium
- (2) Simple squamous epithelium
- (3) Simple cuboidal epithelium
- (4) Compound epithelium

- 153.** Ciliated epithelium is found in

- (1) Air sac and Fallopian tubes
- (2) Bronchioles and Fallopian tubes
- (3) Small intestine and blood capillaries
- (4) PCT and Alveoli of lungs

- 154.** Which is not a correct match?

- (1) Tight junction → Allows passage of ions from one cell to another
- (2) Gap junction → Help in cell to cell communication
- (3) Salivary gland → Exocrine gland
- (4) Adhering junction → Cementing to keep neighbouring cells together

- 155.** Which is not a connective tissue?

- (1) Bone
- (2) Blood
- (3) Cartilage
- (4) Collagen

- 156.** Which is a incorrect match in the following?

- (1) Areolar → Support framework for epithelium
- (2) Mast cell → Histamine
- (3) Macrophage → Phagocytosis
- (4) Dense connective tissue → Fat storage

- 157.** Most important cells associated with bone are

- (1) Chondrocyte
- (2) Osteocyte
- (3) Macrophage
- (4) Mast cell

- 158.** During a accident a persons outer ear joints got injured, which tissue will be most affect?

- (1) Bone
- (2) Cartilage
- (3) Ligament
- (4) Tendon

- 159.** Muscle found in stomach and small intestine are

- (1) Cylindrical and branched
- (2) Uninucleate and voluntary
- (3) Spindle shaped and involuntary
- (4) Spindle shaped and striated

- 160.** Which muscles have intercalated discs?

- (1) Skeletal muscle
- (2) Biceps
- (3) Cardiac muscles
- (4) Smooth muscles

- 161.** Which is not a feature of Neuron?

- (1) Axon
- (2) Cyton
- (3) Dendrite
- (4) Non excitable cells

- 162.** Incomplete cartilaginous rings are not found in

- (1) Trachea
- (2) Secondary bronchi
- (3) Terminal bronchioles
- (4) Primary bronchi

- 163.** Which is also the sound box in human?

- (1) Larynx
- (2) Pharynx
- (3) Trachea
- (4) Pleura

- 164.** Which is incorrect match in the following?

- (1) Fishes – Gills
- (2) Amphibians – Moist skin
- (3) Insects – Tracheal system
- (4) Birds – Gills

- 165.** Which is correct statement in the following?

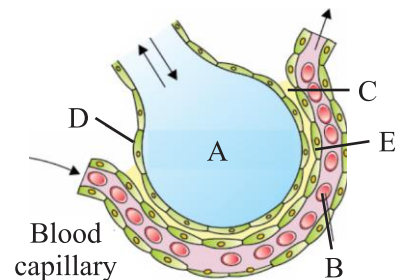
- (1) 25% CO₂ is transported as carboxy haemoglobin
- (2) 70% CO₂ is transported as bicarbonate ions inside RBC
- (3) 3% O₂ is transported as Oxyhaemoglobin
- (4) 7% CO₂ is transported directly dissolved in plasma.

- 166.** Additional volume of air, a person can expire by forcible expiration is called
 (1) TV (2) ERV
 (3) IRV (4) IC
- 167.** Osmotic balance is maintained by which protein?
 (1) Albumin (2) Fibrinogen
 (3) Globulin (4) Prothrombin
- 168.** A person has a blood group O^{+ve} , he is injured, he can receive blood from?
 (1) A^{+ve} (2) B^{+ve}
 (3) AB^{+ve} (4) O^{-ve}
- 169.** Which is not considered as a formed element?
 (1) RBC (2) Leucocyte
 (3) Fibrinogen (4) Platelets
- 170.** **Statement I:** RBC and WBC contain carbonic anhydrase
Statement II: Monocytes are WBC that are anti-allergic.
 (1) Statement I is correct but II is incorrect
 (2) Statement I is incorrect but II is correct
 (3) Both statements are incorrect
 (4) Both statements are correct
- 171.** Percentage of oxygen supplied by haemoglobin is
 (1) 97% (2) 80%
 (3) 49% (4) 3%
- 172.** **Statement I:** Chloride shift is seen in tissues when HCO_3^- comes in RBC and Cl^- goes out of RBC
Statement II: Oxygenated blood delivers 5 ml oxygen to tissues under normal conditions
 (1) Statement I is correct but II is incorrect
 (2) Statement I is incorrect but II is correct
 (3) Both statements are incorrect
 (4) Both statements are correct
- 173.** Among the following which is maximum in number in blood?
 (1) Monocyte
 (2) Basophil
 (3) Neutrophil
 (4) Lymphocyte
- 174.** What is the function of plasma protein globulin?
 (1) Blood clotting
 (2) Defence from pathogens
 (3) Osmotic balance
 (4) Anticoagulant effect
- 175.** Which element is essential for blood clotting?
 (1) Na^+ (2) K^+
 (3) Ca^{+2} (4) HCO_3^-
- 176.** Which structure prevents entry of swallowed food in windpipe?
 (1) Glottis (2) Gullet
 (3) Epiglottis (4) Pleura
- 177.** Which is correct w.r.t. normal inspiration?
 A. Diaphragm muscle contract
 B. Internal intercostal contract
 C. Thoracic chamber decreases in volume
 D. Abdominal muscle contract
 (1) B and C (2) A and C
 (3) C and D (4) Only A
- 178.** IRV is:
 (1) 1200 ml (2) 2800 ml
 (3) 1000 ml (4) 500 ml
- 179.** Which one does not play any role in blood clotting?
 (1) Thrombokinas
 (2) Thromboplastin
 (3) Fibrinogen
 (4) Carbonic anhydrase
- 180.** Collagen fibres are secreted by
 (1) Macrophage
 (2) Fibroblast
 (3) Mast cells
 (4) Histiocytes
- 181.** **Statement I:** More than 50% of brain cells are Neuroglial cells.
Statement II: Neuroglial cells protect and support Neurons.
 (1) Statement I is correct but II is incorrect
 (2) Statement I is incorrect but II is correct
 (3) Both statements are incorrect
 (4) Both statements are correct
- 182.** How many oxygen molecules bind to 2 Haemoglobin molecules under normal conditions?
 (1) 4 (2) 8
 (3) 2 (4) 6
- 183.** Which will help in dissociation of Haemoglobin and oxygen [$HbO_2 \rightleftharpoons Hb + O_2$]?
 (1) Low H^+ (2) Low temp
 (3) Low pO_2 (4) Low pCO_2
- 184.** Which instrument is used to measure pulmonary volumes?
 (1) ECG (2) MRI
 (3) Spirometer (4) Stethoscope
- 185.** Broken ligament will make:
 (1) Bone to muscle attachment loss
 (2) Bone to bone attachment loss
 (3) Skin to muscle attachment loss
 (4) Muscle to muscle attachment loss

SECTION - B

- 186.** Adipose connective tissue is present in
 (1) Below skin
 (2) In muscles
 (3) Ligaments
 (4) Tendons
- 187. Assertion:** Pneumotaxic centre can moderate the functions of the respiratory rhythm centre.
Reason: Neural signal from pneumotaxic centre can reduce the duration of inspiration and thereby alter the respiratory centre.
 (1) Both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
 (2) Both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
 (3) Assertion is true but Reason is false.
 (4) Both Assertion and Reason are false.
- 188.** Which is multinucleated?
 (1) Smooth muscle fibre
 (2) Cardiac muscle fibre
 (3) Skeletal muscle fibre
 (4) Visceral muscle fibre
- 189.** Diapedesis is shown by:
 (1) RBC
 (2) Platelets
 (3) WBC
 (4) Erythrocytes
- 190.** Heparin is a ____A____ secreted by ____B____
 (1) A - Coagulant, B - Basophil
 (2) A - Anticoagulant, B - Neutrophil
 (3) A - Anticoagulant, B - Basophil
 (4) A - Vasodilator, B - Neutrophil
- 191.** Trachea divides into primary bronchi at the level of
 (1) 2nd Cervical vertebra
 (2) 5th Thoracic vertebra
 (3) 5th Lumbar vertebra
 (4) 3rd Thoracic vertebra
- 192.** Wheezing sound during breathing along with spasm of muscles of bronchioles is found in
 (1) Purpura
 (2) Anemia
 (3) Asthma
 (4) Emphysema
- 193.** Respiratory rhythm centre is found in
 (1) Pons
 (2) Cerebrum
 (3) Cerebellum
 (4) Medulla

- 194.** 100 ml blood contains:
 (1) 10-11 gm Haemoglobin
 (2) 18-20 gm Haemoglobin
 (3) 12-16 gm Haemoglobin
 (4) 25-30 gm Haemoglobin
- 195.** Chemo sensitive area is sensitive to:
 (1) Low pO_2
 (2) High pCO_2
 (3) High pO_2
 (4) Low pCO
- 196. Assertion:** The passage starting with the external nostrils upto the terminal bronchiole constitute the respiratory part.
Reason: The respiratory part transport the air to the alveoli, clears it from the foreign material, humidified and brings the air to body temperature.
 (1) Both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
 (2) Both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
 (3) Assertion is true but Reason is false.
 (4) Both Assertion and Reason are false.
- 197.** Following diagram represents a section of an alveolus with a pulmonary capillary.
 The diffusion membrane includes:



Cellular layer's	Non-Cellular layer
(1) A, C, D	—
(2) D, E	C
(3) D, E, C	—
(4) A	C, D

- 198.** Serum is
 (1) Plasma with antibodies
 (2) Blood without RBC
 (3) Plasma without clotting factors
 (4) Blood without clotting factors

199. Erythroblastosis foetalis occurs when foetus and mother are:

- (1) Foetus Rh^{-ve} mother Rh^{+ve}
- (2) Foetus Rh^{-ve} mother Rh^{-ve}
- (3) Foetus Rh^{+ve} mother Rh^{-ve}
- (4) Foetus Rh^{+ve} mother Rh^{+ve}

200. Blood group of a person is AB^{+ve}, which is correct match?

	Antigen	Antibody	RH
(1)	A, B	Nil	Absent
(2)	Nil	Anti A, Anti B	Present
(3)	A, B	Anti A, Anti B	Absent
(4)	A, B	Nil	Present

Solution (BOTANY)

101. (4)

Ribosomes are composed of ribonucleic acid (RNA) and proteins and are not surrounded by any membrane.

CLASS 11 NCERT PG NO. 127

102. (4)

Mesosomes help in cell wall formation, DNA replication and distribution to daughter cells. They also help in respiration, secretion processes, to increase the surface area of the plasma membrane and enzymatic content.

CLASS 11 NCERT PG NO. 128

103. (1)

- Amyloplasts store carbohydrates (starch)
- Aleuroplasts - Store protein granules

CLASS 11 NCERT PG NO. 135

104. (4)

A special membranous structure is the mesosome which is formed by the extensions of plasma membrane into the cell. These extensions are in the form of vesicles, tubules and lamellae.

CLASS 11 NCERT PG NO. 128

105. (3)

- * Plasmid are not present in all bacteria
- * Chromatophore-present in only Cyanobacteria
- * Bacterial cells may be motile or non-motile. If motile, they have thin filamentous extensions from their cell wall called flagella.

CLASS 11 NCERT PG NO. 131

106. (2)

ER and Golgi complex are part of endomembrane system.

CLASS 11 NCERT PG NO. 132,133,135,136

107. (1)

Lipids are arranged within the membrane with the polar head towards the outer sides and the hydrophobic tails towards the inner part.

CLASS 11 NCERT PG NO. 131

108. (2)

- * Non-polar molecule that can diffuse freely through a phospholipid bilayer
- * As the polar molecules cannot pass through the nonpolar lipid bilayer, they require a carrier protein of the membrane to facilitate their transport across the membrane

CLASS 11 NCERT PG NO. 132

109. (2)

The middle lamella is a layer mainly of calcium pectate which holds or glues the different neighbouring cells together.

CLASS 11 NCERT PG NO. 132

110. (2)

- Mitochondria have circular dsDNA.
- The quasi-fluid nature of lipid enables lateral movement of proteins within the overall bilayer.
- Primary wall of plant cell is capable to grow

CLASS 11 NCERT PG NO. 131,135,126

111. (4)

The vacuole is bound by a single membrane called tonoplast.

CLASS 11 NCERT PG NO. 134

112. (1)

Sometimes a few chromosomes have non-staining secondary constrictions at a constant location. This gives the appearance of a small fragment called the satellite.

CLASS 11 NCERT PG NO. 140

113. (3)

- Lysosomes is enclosed by a single membrane
- Ribosome not surrounded by any membrane
- Mitochondria and chloroplast are double membrane organelles.

CLASS 11 NCERT PG NO. 134,135,136

114. (2)

The space limited by the inner membrane of the chloroplast is called the stroma.

CLASS 11 NCERT PG NO. 136

115. (2)

Svedberg's Unit -stands for the sedimentation coefficient; it is indirectly a measure of density and size.

CLASS 11 NCERT PG NO. 136

116. (1)

- * Cis face of golgi complex located towards nucleus.
- * Trans face of golgi complex located towards cell membrane.

CLASS 11 NCERT PG NO. 133

117. (3)

All three are correct.

CLASS 11 NCERT PG NO. 133, 138

118. (2)

Both present in bacteria.

- Nucleoid-Bacteria DNA without membrane.
- Inclusion bodies: Reserve material in prokaryotic cells are stored in the cytoplasm in the form of inclusion bodies

CLASS 11 NCERT PG NO. 128, 129

119. (2)

- Lysosomes are membrane bound vesicular structures formed by the process of packaging in the Golgi apparatus. The isolated lysosomal vesicles have been found to be very rich in almost all types of hydrolytic enzymes (hydrolases – lipases, proteases, carbohydrases) optimally active at the acidic pH. These enzymes are capable of digesting carbohydrates, proteins, lipids and nucleic acids.
- The endomembrane system include endoplasmic reticulum (ER), Golgi complex, lysosomes and vacuoles

CLASS 11 NCERT PG NO. 134

120. (2)

In the chromoplasts fat soluble carotenoid pigments like carotene, xanthophylls and others are present. This gives the part of the plant a yellow, orange or red colour.

- The leucoplasts are the colourless plastids

CLASS 11 NCERT PG NO. 135

121. (4)

Cell membranes- Involves in active transport of materials.

CLASS 11 NCERT PG NO. 132

122. (1)

- The metacentric chromosome has middle centromere forming two equal arms of the chromosome.
- The sub-metacentric chromosome has centromere slightly away from the middle of the chromosome resulting into one shorter arm and one longer arm.
- In case of acrocentric chromosome the centromere is situated close to its end forming one extremely short and one very long arm.
- Telocentric chromosome has a terminal centromere.

CLASS 11 NCERT PG NO. 139

123. (2)

Sometimes a few chromosomes have non-staining secondary constrictions at a constant location. This gives the appearance of a small fragment called the satellite.

CLASS 11 NCERT PG NO. 140

124. (3)

- Chloroplast – Thylakoid
- Mitochondria-The inner membrane forms a number of infoldings called the cristae
- SER – Involve in lipid and steroid hormone synthesis
- Ribosome – Ribonucleic acid (RNA) and proteins

CLASS 11 NCERT PG NO. 135,136,133

125. (3)

Plants it consists of cellulose, hemicellulose, pectin and proteins.

CLASS 11 NCERT PG. NO.132

126. (3)

Many membranes bound minute vesicles called microbodies that contain various enzymes, are present in both plant and animal cells.

CLASS 11 NCERT PG NO. 140

127. (1)

Organelle important in spindle formation during nuclear division is centriole.

CLASS 11 NCERT PG NO. 138

128. (3)

All three correct

CLASS 11 NCERT PG NO. 129

129. (3)

An improved model of the structure of cell membrane was proposed by Singer and Nicolson (1972) widely accepted as fluid mosaic model.

CLASS 11 NCERT PG NO. 132

130. (1)

The two subunits of 80S ribosomes are 60S and 40S.

CLASS 11 NCERT PG NO. 136

131. (3)

Both prokaryotes and eukaryotes

CLASS 11 NCERT PG NO. 136,129

132. (1)

9+2 arrangement of microtubules is observed in eukaryotic flagella.

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133. (3)

- Mitochondria and chloroplast are semi-autonomous organelles
- They contain their own DNA and protein synthesizing machinery.

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134. (1)

In the chromoplasts fat soluble carotenoid pigments are present.

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135. (4)

- Inclusion bodies: Reserve material in prokaryotic cells are stored in the cytoplasm in the form of inclusion bodies.
- These are not bound by any membrane system and lie free in the cytoplasm, e.g., phosphate granules, cyanophycean granules and glycogen granules

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136. (4)

Several ribosomes may attach to a single mRNA and form a chain called polyribosomes or polysome. The ribosomes of a polysome translate the mRNA into proteins.

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137. (4)

Every chromosome (visible only in dividing cells) essentially has a primary constriction or the centromere on the sides of which disc shaped structures called kinetochores are present.

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138. (1)

Both Assertion & Reason are true and the reason is the correct explanation of the assertion

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139. (4)

Inclusion bodies: Reserve material in prokaryotic cells are stored in the cytoplasm in the form of inclusion bodies.

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140. (3)

The stroma of the chloroplast contains enzymes required for the synthesis of carbohydrates and proteins.

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141. (4)

Rudolf Virchow (1855) first explained that cells divided and new cells are formed from pre-existing cells (*Omnis cellula-e cellula*).

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142. (2)
Bacterial cells may be motile or non-motile. If motile, they have thin filamentous extensions from their cell wall called flagella.
CLASS 11 NCERT Pg. No.129
143. (2)
Cilia (sing.: cilium) and flagella (sing.: flagellum) are hair-like outgrowths of the cell membrane.
CLASS 11 NCERT Pg.137
144. (1)
Microbodies- Many membrane bound minute vesicles called microbodies that contain various enzymes, are present in both plant and animal cells.
• Cell wall and plastids are present in plants cells.
CLASS 11 NCERT PG NO.130,135,140
145. (4)
The cell wall of a young plant cell, the primary wall is capable of growth, which gradually diminishes as the cell matures and the secondary wall is formed on the inner (towards membrane) side of the cell.
CLASS 11 NCERT PG NO.132
146. (3)
Mango belongs to this order Sapindales.

147. (4)
• Sapindales is order of mango and Poales is order of wheat
• Sapindales belongs to class Dictotyledonae
• Poales belongs to class monocotyledonae
CLASS 11 NCERT PG NO.11
148. (2)
• For plants, scientific names are based on agreed principles and criteria, which are provided in International Code for Botanical Nomenclature (ICBN).
• Biological names are generally in Latin
CLASS 11 NCERT PG NO.6,7
149. (2)
Name of the author appears after the specific epithet, i.e., at the end of the biological name and is written in an abbreviated form, e.g., *Mangifera indica* Linn.
CLASS 11 NCERT PG NO.7
150. (3)
Order being a higher category, is the assemblage of families which exhibit a few similar characters.
CLASS 11 NCERT PG NO. 10

(ZOOLOGY)

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