

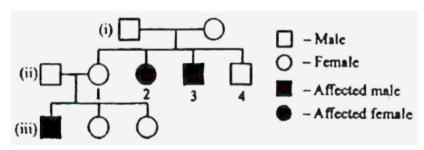
BIOLOGY

BOOKS - NTA MOCK TESTS

NTA NEET SET 84

Biology

1. Study the given pedigree chart for sickle-cell anaemia and select the most appropriate option for the genotypes of parents , 1^{st} child and 3^{rd} child in F_1 generation respectively .



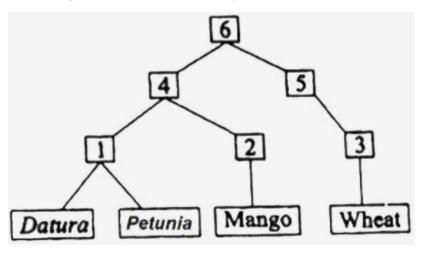
A. Hb^AHb^S , $Hb^AHb^AHb^AHb^A$, Hb^AHb^S

- B. Hb^AHb^S , $Hb^AHb^SHb^AHb^A$, Hb^AHb^A
- C. Hb^AHb^A , $Hb^AHb^SHb^AHb^A$, Hb^SHb^S
- D. Hb^AHb^S , $Hb^AHb^SHb^AHb^S$, Hb^SHb^S

Answer: D



2. Recognize the following flow diagram and find CORRECT option according to taxonomic hierarchy.



A. I - Polymoniales , 2 - Sapindales , 3 - Poales , 4 - Dicotyledonae , 5 -

Monocotyledonae , 6 - Angiospermae.

B. 1 - Solanaceae , 2 - Anacardiaceae, 3 - Poaceae , 4 - Leguminaceae, 5 -

Poales , 6 - Angiospermae.

C. I - Solanum , 2 - Mangifera , 3 - Triticum , 4 - Dicotyledonae, 5 -

Monocotyledonae, 6 - Fungi

D. I - Polymoniales , 2 - Sapindales , 3 - Poales , 4 - Angiospermae , 5 - Monocotyledonae , 6 - Metazoa..

Answer: A



3. A single species might show high diversity over its distributional range at the

A. Genetic level

- B. Species level
 C. Ecosystem level
- D. Both (a) and (b)

Answer: A



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- 4. Bt toxin is a
 - A. crystalline, proteinaceous , insecticidal eta endotoxin
 - B. amorphous , proteinaceous , insecticidal δ endotoxin
 - C. crystalline, proteinaceous , insecticidal δ endotoxin
 - D. amorphous , proteinaceous , insecticidal β endotoxin

Answer: C



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5. Daughter will be colour blind when A. father is colour blind, mother is normal B. Mother is a carrier, father is normal C. Mother is a colour blind, father is normal D. Father is colour blind, mother is carried Answer: D **Watch Video Solution** 6. In the process of recombinant DNA technology, the isolated foreign DNA is inserted into another DNA molecule known as A. Coding Vector B. Lipo vector C. Protein Vector D. Cloning Vector

Answer: D



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7. The frequency of two alleles in a gene pool is 0.19 (A) and 0.81 (a).

Assume that the population is in Hardy-Weinberg equilibrium and

- (a) Calculate the percentage of heterozygous individuals in the population.
- (b) Calculate the percentage of homozygous recessive in the population .
 - A. 60% and 40%
 - B. 66 % and 31 %
 - $\mathsf{C.40\,\%}$ and $\mathsf{60\,\%}$
 - D. 31% and 66%

Answer: D



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A. Escherichia coli
B. Bacillus thuringiensis
C. Pastuerlla pestis
D. Pseudomonas putida
Answer: D
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9. Which one of the following is WRONGLY matched?
A. Transcription - writing information from DNA to mRNA
B. Translation- using information in to make protein
C. Repressor protein - Binds to operator to stop enzyme synthesis
D. Operon - structural genes , operator , promoter and intron

8. Superburg claimed to clean up oil slicks in ocean is

Answer: D



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10. If natality and mortality of a population are nearly same it will be termed as:

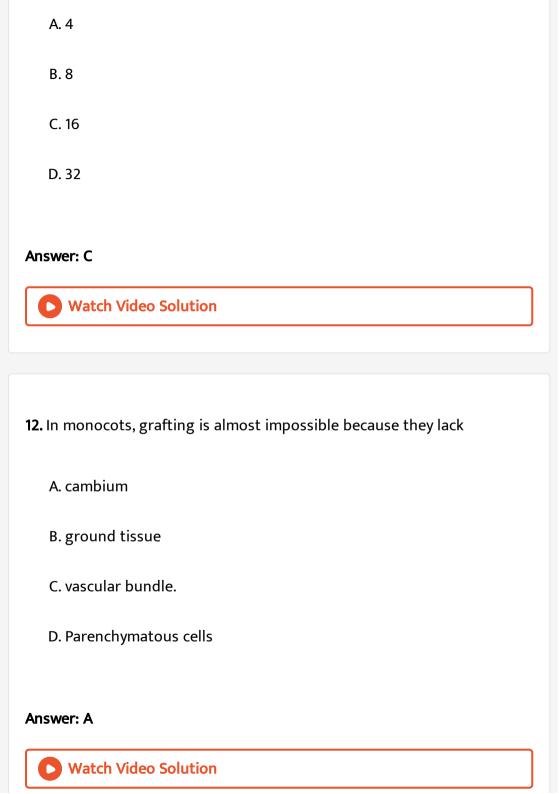
- A. Young population
- B. Stable population
- C. declining population
- D. growing population

Answer: B



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11. How many types of gametes can be produced by a diploid organism who is heterzygous for 4 loci?



13. Identify A and B in the given reaction.

Pyruvic acid

$$+ CoA + NAD^{+} \xrightarrow[\text{Pyruvate dehydrogenase}}^{Mg^{2+}} A + B + NADH + H^{+}$$

A.
$$A-PEP, B-CO_2$$

B. A - Acetyl
$$CoA, B-CO_2$$

$$\mathsf{C.}\,A-CO_2,B-H_2O$$

D. A - Acetyl CoA ,
$$B-H_2O$$

Answer: B



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14. In the polt of the species - area relationship for the co-efficient z, the axis X and Y, represents

A. x-axis y - axis Species richness Area

- y axis x-axis Species richness Area
- y axis x-axis C. Slope of the line Intercept
- y axis x-axis
- D. Intercept Slope of the line

Answer: B

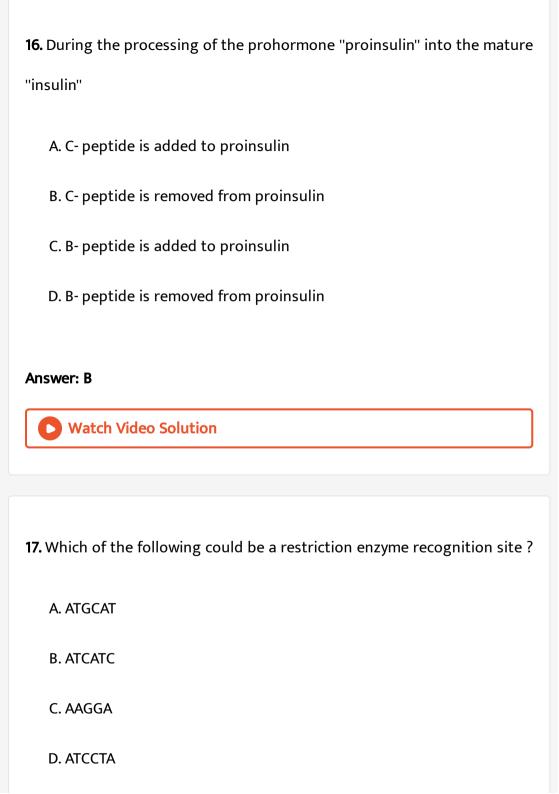


- 15. Skin color inheritance observed in man is an example of
 - A. Cytoplasmic inheritance
 - B. Mendel's inheritance
 - C. Plastid inheritance
 - D. Quantitative inheritance

Answer: D



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Answer: A



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- 18. The rate of synthesis of organic matter by consumers is
 - A. net primary productivity
 - B. gross primary productivity
 - C. standing state
 - D. secondary productivity

Answer: D



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19. What percentage of total area in hilly regions does the National

Forests Policy suggests to be under forests

B. 67 % C. 33 % D. 66 % **Answer: B Watch Video Solution** 20. Eukaryotic genome differs from prokaryotic genome in A. DNA being circular B. Possessing histones and non-histone proteins C. having single stranded DNA D. DNA is not organized inside nucleus. Answer: B **Watch Video Solution**

A. 30 %

21. Ecological niche is

A. the sum total of environmental factors or conditions, which determine the existence of organism, population, or community in a particular locality

- B. an ecologically adapted zone and is the address of an organism
- C. the physical position and functional role of a species within the community
- D. formed of all plants and animals living at the bottom of a lake

Answer: C



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22. In which of the following will be observed the webbed neck condition?

A. XXY
B. XY
C. XO
D. XXX
Answer: C
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23. Select the WRONG statement with respect to glycolysis.
A. It occurs outside mitochondria.
B. It is an anaerobic phase.
C. Glucose undergoes partial oxidation to form 2 molecules of pyruvic
acid.
D. Glucose is phosphorylated to glucose-6-phosphate by isomerase
enzyme.

Answer: D



- 24. Robert May places the global species diversity at about
 - A. 6 million
 - B. 7 million
 - C. Slightly more than 1.5 million
 - D. Slightly less than 1.5 million

Answer: B



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25. Which Indian plants have either been patented or attempts have been made to patent them by western nations for their commercial use ?

A. Basmati rice, neem and brazzeana B. Turmeric, cocus, brazzeana C. Neem, cardamom, pothos D. Basmathi rice, neem and turmeric Answer: D **Watch Video Solution** 26. Select the CORRECT match. A. Sedimentary cycle - Nitrogen cycle B. Guano deposit - phosphorus cycle C. Lithosphere - Reservoir pool of carbon D. Quercus - Species of woodland stage Answer: B **Watch Video Solution**

27. In the DNA strand undergoing transcription has a following base pair sequence. What would be the sequence of mRNA formed from this strand?

3' GAT CTT AGC GGG AAT TCG 5'

A. 5' GAU CUU AGC GGG AAU UCG 3'

B. 5' CAU GAA UGC CCC UUA AGC 3'

C. 5' CUA GAA UCG CCC UUA AGC 3'

D. 3' CUA GAA UGG CCC UUA AGC 5'

Answer: C



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28. All gens located on the same chromosome

A. form different groups depending upon their relative distance

- B. from one linkage group
- C. do not form any linkage group
- D. from interactive groups that affect the phenotype

Answer: B



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- 29. Which of the following statements is INCORRECT?
- I. The cell wall of plants is made up to homopolysaccharides while the cell wall of fungi is made up of heteropolysacchaerides.
- II. The function of enzyme will stop if its tertiary structure is destroyed.
- III. The cytoplasm contains r thymidylic acid and d-uridylic acid as building blocks of nucleic acids.
- IV. Arachidonic acid has 20 carbon atoms including the carboxyl carbon .
 - A. I and II
 - B. III and IV

C. I and III

D. II and IV

Answer: C



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a. Bicuspid and tricuspid valves are open

30. Which is correct about joint diastole?

- b. Bicuspid and tricuspid valves are closed
- c. Semilunar valves are open
- d. Semilunar valves are closed
 - A. a and c
 - B. b and d
 - C. a and d
 - D. b and c

Answer: C

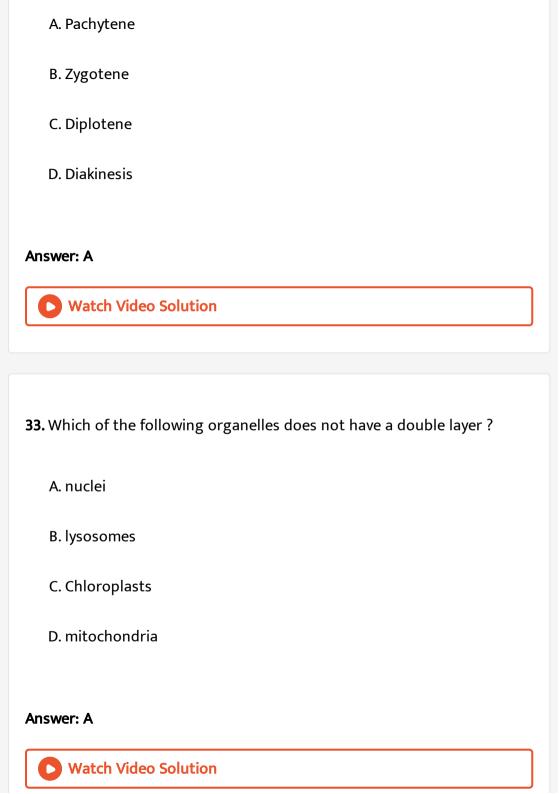
31. On a graph paper, we have plotted the oxygen haemoglobin curve of hemoglobin seen in the embryonic stage. A new oxygen hemoglobin curve of hemoglobin seen in a 10 - year - old child is plotted on the same graph paper. with respect to this graph, which one of the following statements is correct?

- A. The new curve is on the right of the old
- B. The new curve is on the left of the old curve.
- C. The new curve completely overlaps the old curve.
- D. Data is insufficient to comment on the position of graphs

Answer: A



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34. If pituitary is surgically removed, blood level of sodium falls and that of patassium rises due to

- A. atrophy of adrenal cortex
- B. atrophy of adenal medulla
- C. fact that ADH from pituitary is no longer available
- D. fact that TSH from pituitary is no longer available

Answer: A



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35. Select the INCORRECT match.

A. Clavicle - S-shaped collar bone having flat medial part and cylindrical outer parts.

B. Scapula -a large triangular bone situated dorsolaterally over

 2^{nd} to 7^{th} rib.

C. Acetabulum - a cavity formed by the fusion of illum, ischium and pubis.

D. Partella - cup shaped sesamoid bone making knee joint

Answer: A



36. Sudden addition or deletion of genes by chance in a small population is called

A. Sewall wright effect

B. Mutation

C. Gene flow

D. Gene migration

Answer: A



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37. A patient is diagnosed with internal bleeding, muscular pain, fever, anemia, blockage of intestinal passage. He is most likely suffering from

- A. Filariasis
- B. Amoebiasis
- C. Ascariasis
- D. Malaria

Answer: C



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38. Which of the following organelles is absent in human sperm?

A. Nucleus B. Mitochondria C. Centriole D. Endoplasmic reticulum Answer: D **Watch Video Solution** 39. What would happen if vasa defferentia of man are cut? A. Sperms are non - nucleate B. Spermatogenesis does not occur C. Semen is without sperms D. Sperms are non-motile Answer: C **Watch Video Solution**

40. Which one of the following statements is totally wrong about the occurrence of notochord, while the other three are correct?

A. It is present only in larval tail in Ascidians.

B. It is replaced by a vertebral column in frog.

C. It is absent throughout life in humans from the very beginning.

D. It is present throughout life in Amphioxus.

Answer: C



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- **41.** Which of the following statement are CORRECT?
- I. Renin is a proteolytic enzyme found in gastric juice of infants which helps in the digestion of milk proteins.
- II. No significant digestive activity occurs in the large intestine.

III. The egestion of faeces to the outside through the anal opening (

defecation) is a voluntary process and is carried out by a mass peristaltic movement. IV. Ejection of stomach contents through the mouth is a reflex action controlled by the vomiting center in the medulla. A. I, II and IV B. II, III and IV C. III and IV D. II and III **Answer: B Watch Video Solution** 42. Identify the correct statement regarding urine formation A. Countercurrent mechanism works around the PCT and glomerulus. B. To prevent diuresis, ADH facilitates water reabsorption from the

latter parts of the tubule.

C. Maximum reabsorption of electrolytes occurs in the Henley's loop.
D. A decrease in blood pressure can increase the GFR
Answer: B
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43. Which of the following is not an effect produced by parasympathetic
stimulation?
A. Promotes sugar release
B. Constriction of bronchi
C. Increased saliva secretion
D. Increased stomach peristalsis

Answer: A

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44. Read the following statements and mark the incorrect statem	ent
regarding cardiac muscle.	
A. It is a contractile tissue present in heart	

- B. They are not under the control of will of the animals
- C. They show relatively rapid contraction
- D. Muscle fibers are multinucleated

Answer: D



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45. Co- factor and prosthetic groups are compounds, bound to apoenzyme.

- A. organic, transiently
- B. inorganic, tightly
- C. organic, tightly

D. Inorganic, transiently
Answer: C
Watch Video Solution
46. Plasma protein which helps in osmotic balance is
A. Albumin
B. Globulin
C. Fibrinogen
D. Heparin
Answer: A
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47. A person has exhaled forcefully. The amount of air present in his lungs is

A. O litres

B. 3 litres

C. 1.2 litres

D. 0.5 litres

Answer: C



48. A cell divides every minute. It will fill a 100 ml beaker in one hour. How much time would it take to fill 50 ml beaker

A. 29 minutes

B. 30 minutes

C. 59 minutes

Answer: C Watch Video Solution		
49. In Mitochondria, Cristae	act as sites for	
A. protein synthesis		
B. oxidation-reduction re	eaction	
C. breakdown of macrom	olecules	
D. phosphorylation of fla	voproteins	
Answer: B		
Watch Video Solution		

50. Which is not a secondary messenger in hormone mediated action?

D. 60 minutes

A. IP_3 B. Ca^{2+} C. cAMP D. $NaHCO_3$ Answer: D **Watch Video Solution** 51. Which of the following statement is INCORRECT? A. Each actin filament is made of two G actin B. Each F actin is a polymer of G actin C. Troponin is a complex protein distributed at regular intervals on tropomyosin D. Tropomyosin run close to F-actin along its length Answer: A



52. Homologous organs are

A. Wings of pigeon and Butterfly

B. Wings of Pigeon and Housefly

C. Wings of Pigeon and arms of Humans

D. Wings of Bat, Housefly and Butterfly

Answer: C



53. Which of the following substance are misused by certain sportspersons to enhance their performance?

A. Narcotic analgesics

B. Anabolic steroids

- C. Diuretics and certain hormones
- D. All of the above

Answer: D



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- **54.** The fuction of ovary is
- a. To produce female gamete.
- b. To provide the site for fertilisationc. To provide the site for implantation
- c. To produce several steroid hormones
 - A. a and b
 - B. a, b and d
 - C. a, b and d
 - D. a and d

Answer: D



55. GIFT is for

A. embryo implantation after in vitro fertilization

B. egg implantation for in vivo fertilization

C. embryo implantation after in vitro fertilization

D. embryo implantation after in vitro fertilization

Answer: B



56. Which one of the following phyla is correctly matched with its two general characteristics?

A.

Annelida Notochord at some stage and sperate anal and urinary ope

В.

Echinodermata Pentamerous radial symmetry and mostly internal

C.

Mollusca Normally oviparous and development through a trochophe

D.

Arthropoda Body divided into head, thorax and respiration by trace

Answer: C



57. Renin is secreted by

A. juxtaglomerular cells of juxtamedullary nephrons in response to

high blood pressure

B. juxtaglomerular cells of juxtamedullary nephrons in response to low blood pressure

C. juxtaglomerular cells of cortical nephrons in response to high blood pressure

D. juxtaglomerular cells of cortical nephrons in response to increased osomolarity.

Answer: B



58. The spinal cord in man extends from the

A. medulla oblongata to the second thoracic vertebra.

B. level of third cervical vertebra to the coccyx

C. level of the axis to the lowest lumber vertebra

D. medulla oblongata to the level of the second lumbar vertebra

Answer: D



59. Read the given statements about the blood vascular system of cockroach

I. The circulatory system of cockroach is of closed type

II. It contains no blood vessels except aorta of the heart.

III. The heart is 6 - chambered.

IV The haemolymph is composed of coloruless plasma and haemocytes.

Which of the statement (s) given above is / are INCORRECT?

A. only I

B. I,II and III

C. I and III

D. only IV

Answer: C



60. Inulin is a polymer of A. amino acids B. glucose C. fructose D. nucleotides **Answer: C Watch Video Solution**

61. Middle lamella is

- A. plasma membrane covering the two cells together.
- B. made of calcium pectate or magnesium pectate.
- C. a pore in the plasma membrane of cell.
- D. a cell wall between to adjacent cells.

Answer: B



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- 62. Reception for protein hormones are located
 - A. in the nucleus
 - B. in the cytoplasm.
 - C. on the cell surface
 - D. on the endoplasmic reticulum.

Answer: C



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63. Resocurce partitioning in an environment with limited resources and interbreeding species leads to

B. divergent evolution C. parallel evolution D. non - stabilizing evolution. **Answer: B Watch Video Solution** 64. Which of the following cells is NOT a part of cellular barriers? A. Interferons B. Natural killer cell C. kupffer cell D. Polymorphonuclear lymphocytes Answer: A **Watch Video Solution**

A. convergent evolution

 $\textbf{65.} \ \, \text{Match the columns I and II , and choose the CORRECT combination}$ from the options given .

		Column I		Column II
	(a)	Testis	(i)	Erectile
	(b)	Infundibulum	(ii)	Oval
	(c)	Uterus	(iii)	Finger-like
	$\overline{(d)}$	Fimbriae	(iv)	Funnel-shaped
	(e)	Clitoris	(v)	Inverted pear like

Answer: C



A. To push the embryo in the nutritive zone				
3. To derive nutrition from the embryo				
C. To help in the fertilization.				
D. To help in maturation of the embryo.				
Answer: A				
Watch Video Solution				
67. Which plants part possesses polyarch condition of vasuclar bundles with a well developed pith?				
A. dicot root.				
B. monocot root.				
C. dicot root.				
D. monocot stem.				

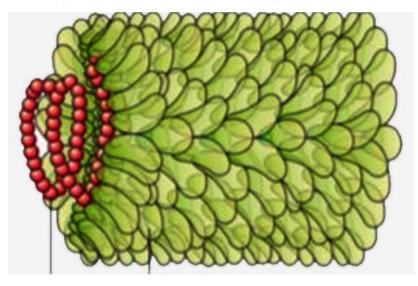
66. Role of suspensor is:

Answer: A



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68. The genetic material in the following organism is



A. double - stranded DNA.

B. single - stranded DNA.

C. double - stranded RNA.

D. single - stranded RNA.

Answer: D



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69. Match the following and choose the correct combination from the options given.

Column I Column II

A. Mustard 1. Polyadelphy

B. Brinjal 2. Diadelphy

C. Citrus 3. Variations in the length of filaments

D. Pea 4. Epipetalous stamens

A. A - 4, B - 3, C - 2, D - 1

B. A - 1, B - 2, C - 3, D - 4

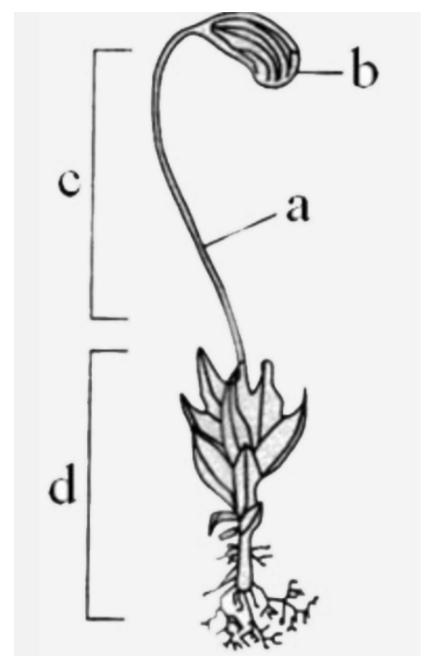
C. A - 2, B - 3, C - 4, D - 1

D. A - 3, B - 4, C - 1, D - 2

Answer: D



70. Reconginse the figure and find out the CORRECT matching:



A. a - Seta , b - Capsule, c - Gametophyte , d - Sporophyte

B. a - Capsule, b - Seta, c - Sporophyte, d - Gametophyte

C. a - Seta, b - Capsule, c - Sporophyte, d - Gametophyte

D. a - Capsule, b - Seta, c - Gametophyte, d - Sporophyte

Answer: C



71. The primary treatment basically involves the physical removal of particles from the sewage through

A. filtration

B. sedimentation

C. microbial treatment

D. Both (A) and (B)

Answer: D



72. If 2n=12, the number of chromosomes in nuclellus, integrument and egg cell would be:

- A. 12, 12, 6
- B. 12, 18, 24
- C. 12, 12, 12
- D. 12, 12, 24

Answer: A



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73. In which of the following, all three are macronutrients

- A. Boron, zinc , manganese
- B. Iron, copper, molybdenum
- $\hbox{C. Molybdenum, magnesium, manganese}\\$

D. Nitrogen, magnesium, phosphorus

Answer: D



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74. In C_4 plants ,

A. grana is present in mesophyll cells and absent in bundle sheath cells.

B. grana is absent in mesophyll cells and present in bundle sheath cells.

C. grana is present in both mesophyll and bundle sheath cells.

D. grana are absent in both mesophyll and bundle sheath cells.

Answer: A



Watch Video Solution 77. In tissue culture technique the source of carbon is A. fructose B. CO_2 C. maltose D. sucrose **Answer: D Watch Video Solution** 78. The collective used for phelloderm cork cambium and cork is A. pericycle

Answer: A

- B. periderm
 C. protoderm
- D. procambium

Answer: B



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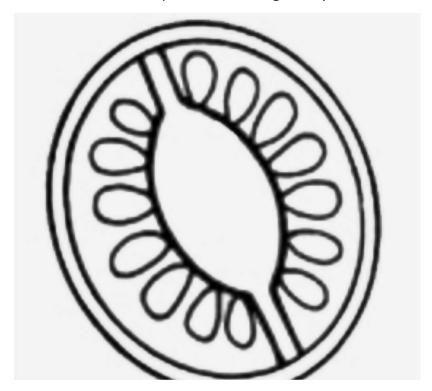
79. Azolla is used as a biofertilizer because it

- A. multiplies very fast to produce massive biomass.
- B. has an association of nitrogen fixing Rhizobium
- C. has an association of nitrogen fixing cyanobacteria
- D. has an association of mycorrhiza

Answer: C



80. The TS of the ovary shows in the figure represent



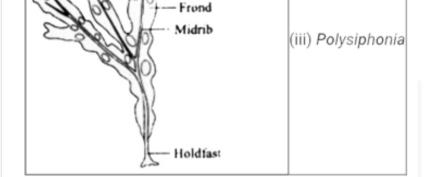
- A. Swollen placenta
- B. Binocular ovary
- C. Bicarpellary ovary
- D. All of these

Answer: D



81. Match the columns I and II, and choose the CORRECT combination from the options given.

Column I	Column II	
(a) Frond Stipe Holdfast	(i) Fucus	
Main axis Branches	(ii) Laminaria	
(c) Air bladder		



Find the CORRECT match.

Answer: D



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82. In human beings, monosomy of sex chromosomes causes:

A. Down's syndrome

- B. Kinefeter's syndrome

 C. Turner's syndrome

 D. Edward's syndrome

 Answer: C

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- 83. Parthenocarpic fruits are
 - A. dry and indehiscent
 - B. fleshy and seedless
 - C. multi seeded
 - D. provided with haploid embryo

Answer: B



- **84.** Select the INCORRECT match.
 - A. Morels and truffles Phycomycetes
 - B. Puff balls and toad stools Basidiomycetes
 - C. Early blight of potato Alternaria solani
 - D. Late blight of potato Phytophthora infestans

Answer: A



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the pulvinus

- **85.** Which of the following statement is incorrect?
 - A. In monocotyledons, the leaf base expands into a sheath covering the stem partially or wholly
 - B. In some grasses, the leaf base may become swollen , which is called

C. The leaf blade is the green expanded part of the leaf with verins and veinlets

D. Leaves originate from shoot apical meristems and are arranged in an acropetal order.

Answer: B



86. Commelina produces:

A. Cleistogamous flowers

B. Chasmogamous flowers

C. Both cleistogamous and chasmopamous types of flowers

D. Either cleistogamous or chsmogamous flowers at a time

Answer: C



- **87.** All the following are correct about enzymes, except:
 - A. Lower the energy of activation of reaction
 - B. Make the equilibrium more favourable for the organism
 - C. Lower the energy of product and increases the energy of reactant .
 - D. Are altered permanently in the reaction they catalyse

Answer: A



- 88. The main functions of the root is
 - A. absorption of water and minerals
 - B. to provide proper anchorage of plant

C. to store reserve food material and synthesis of plant growth regulators

D. All of the above

Answer: D



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89. Which of the following changes in earlier classification system were not brought about by R.H. Whittaker ?

A. Blue green algae are no longer considered as plants.

B. Chlorella, a unicellular alga is no longer considered as a plant.

C. Amoeba and Paramecium are no longer considered as animals

D. Yeast, a unicellular eukaryote, is no longer considered as fungus

Answer: D



- 90. Lupinus arcticus is an example of
 - A. 2000 years old viable seed
 - B. plants that produce flowers once in its lifetime.
 - C. plants that produces smallest pollen.
 - D. 10000 years old viable seed

Answer: D

