



BIOLOGY

AAKASH INSTITUTE ENGLISH

MOCK TEST 1



1. Select the mismatch

A. Nucleus - Robert Brown

B. Cell theory - Matthias Schleiden and

Theodore Schwann

C. Mesosomes - George Palade

D. Cell membrane - Singer and Nicolson

Answer: C

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2. Read the following statements and select

the correct option w.r.t cell theory.

(i) All living organisms are composed of cells

and products of cells.

(ii) Viruses are exception to cell theory because they are cellular particles.
(iii) All cells arise from pre-existing cells.
(iv) Activities of an organisms are the outcome of sum total of activities and interactions of its constituent cells.

(v) Rudolf Virchow gave final shape to cell theory.

A. All expect (ii)

B. All expect (ii) & (iii)

C. All expect (iii) & (v)

D. All expect (i) & (iv)

Answer: A

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3. Statement A : Ribosomes are membraneless organelles found in all cells.

Statement B : Cytoplasm is the main arena of

cellular activities.

A. Only statement A is incorrect

B. Only statement B is incorrect

C. Both the statement are incorrect

D. Both the statement are correct

Answer: D

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4. What is the outermost layer of cell envelope

in prokaryotic?

A. Cell Wall

B. Glycocalyx

- C. Plasma membrane
- D. Mesosomes

Answer: B

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5. Select the incorrect statement.

A. Egg of ostrich is the largest isolated

single cell

B. Ribosomes are organelle within the

organelle

C. The Shape of the cells may vary with the

function they perform

D. Genetic material is present in well

defined nucleus in both prokaryotes and

eukaryotes

Answer: D

6. Which of the following acts of mordant in

gram staining technique

A. Alcohol

B. Crystal violet stain

C. Safranine

D. Lodine

Answer: D

7. Select the odd one w.r.t functions of mesosome.

A. Helps in respiration and secretion

processes

B. Help in cell wall formation

C. Helps in formation of inclusion bodies

D. Helps in DNA replication

Answer: C

- 8. A flagellum is composed of
 - A. 1.Inclusion bodies, filament and hook
 - B. 2.Filament, hook and basal body
 - C. 3. Filament, cell wall and cell membrane
 - D. 4. Filament, mesosomes and basal body

Answer: B



9. (a) is the extrachromosomal DNA present in (b) of prokaryotic cell.

A. (a) Mesosome (b) Plasmamembrane

B. (a) Mesosome (b) Cell wall

C. (a) Plasmid (b) Nucleus

D. (a) Plasmid (b) Cytoplasm

Answer: D

10. What persentage of proteins and lipids respectively are present in the membrane of human erythrocyte cell?

A. 40% and 52%

B. 52% and 40%

C. 48% and 52%

D. 50% and 42%

Answer: B

11. Which one of the following is absent in plant cell?

A. Plastids

B. Large sap vacuole

C. Cell wall

D. Centriole

Answer: D

12. Select the incorrect statement w.r.t active transport.

A. Uphill movement of materials takesplace across the membraneB. Solute particles move against theconcentration gradient

C. Energy dependent process

D. Active transport do not requires energy







13. Select the incorrect statement w.r.t eukaryotic cell

A. Membrane bound organelles are present

B. Sap vacuoles are commonly found in

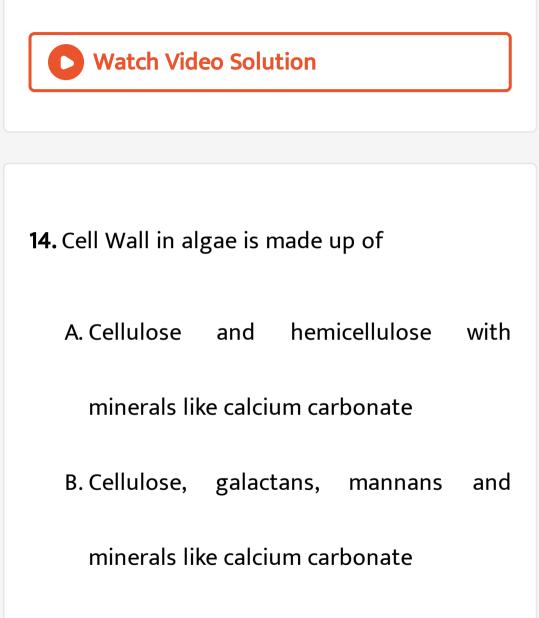
plant cells

C. Contains 80 S ribosomes

D. Plasma membrane is symmetrical in

nature

Answer: D



C. Cellulose, galactose, pectin and minerals

like magnesium carbonate

D. Celluloser, galactose, mannans and

chitin

Answer: B

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15. Cell organelle that divides intracellular space of a cell into two compartment luminal space and extra luminal space

A. Golgi body

- B. Endoplasmic reticulum
- C. Nuclear membrane
- D. Mitochondria

Answer: B

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16. Golgi apparatus is associated with

A. Post translational protein modification

B. Glycosylation of lipids

C. Gycosidation of proteins

D. Co-translational protein processing

Answer: A

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17. The inner mitochondrial membrane

contains

A. Enzymes

B. Electron carriers

C. 70 S ribosomes

D. Both (1) & (2)

Answer: D

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18. Lysosomes have

A. Hydrolases active at acidic pH

B. Lipases and proteases only

C. Hydrolases active at pH=7

D. Hydrolases active at basic pH

Answer: A

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19. ____ are called as suicidal bags.

A. Gas vacuoles

B. Autophagic vacuoles

C. Food vacuoles

D. Contractile vacuoles

Answer: B

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20. Endomembrane system includes

A. Endoplasmic reticulum, golgi apparatus,

lysosomes and vacuoles

B. Endoplasmic reticulum, plastids,

lysosomes and vacuoles

C. Endoplasmic reticulum, golgi apparatus,

peroxisomes and vacuoles

D. Endoplasmic reticulum, golgi apparatus,

sphaerosomes and vacuoles

Answer: A

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21. Choose incorrect option w.r.t chloroplast

A. Has enzymes for carbohydrate synthesis

B. Stroma-Light reaction

C. Has enzymes for protein synthesis

D. Thylakoid-Possess photosystem

Answer: B

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22. Cell wall is

A. A non-living, rigid structure that surrounds

the plasma membrane of plant cell.

B. Fungal cell wall is composed of N-

acetylglucosamine units.

A. Only A is correct

B. Only B is incorrect

C. Only A is incorrect

D. Both A and B are correct

Answer: D

23. Oxidative phosphorylation is done by

A. Mitochondria

B. Chloroplast

C. Plastids

D. Ribosomes

Answer: A

24. Contractile vacuole in Amoeba helps in

A. Osmoregulation

B. Excretion

C. Digestion

D. Both (1) & (2)

Answer: D

25. Vacuole in a plant cell can occupy upto

A. 90% of the cell volume

B. 20% of the cell volume

C. 10% of the cell volume

D. 35% of the cell volume

Answer: A

26. Semi-autonomous nature of mitochondria

is due presence of

A. 70S ribosome

B. ds DNA

C. Cardiolipin

D. Both (1) & (2)

Answer: D

27. Read the statement carefully and choose the correct option.

A. Primary cell wall of plant cells is incapable of growth and diminishes gradually as the cell matures.

B. RER is abundantly found in the cells which are actively involved in proteins synthesis and secretion.

C. SER is a major site for lipid synthesis.

D. A number of proteins synthesized by RER are modified inside the Golgi apparatus.

A. A , B & C

B. A , C & D

C.B,C&D

D. A , B & D

Answer: C

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28. Ribosomes are also called as

A. Palade particles

B. Oxysomes

C. F0-F1 particles

D. Cristae

Answer: A

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29. Choose the incorrect statement w.r.t ribosome.

A. It is composed of rRNA and proteins

B. It is not surrounded by any membrane

C. It is the smallest cell organelle

D. It helps in lipid synthesis

Answer: D

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30. Select the incorrect match

A. Phylloclade - Opuntia

B. Cladode - Asparagus

C. Leaf tendril - Vitis

D. Stem tendril - watermelon

Answer: C

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31. Select the mismatch w.r.t. modifications of leaf

A. Leaf tendrils - Sweet pea

B. Leaf spines - Cactus

C. Phyllodes - Aloe

D. Storage organ - Garlic

Answer: C

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32. Which of the following contains

insectivorous plants?

A. Aloe and Nepanthes

B. Pitcher plant and Acacia

C. Sarracecia - Nepanthes

D. Venus fly trap and Aloe

Answer: C

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33. which of the following modification of stem protects the plant from following animals and reduces transpiration?

A. Phyllodes

B. Thoms

C. Spines

D. Tendrils

Answer: B

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34. Unfoliate leaves are found in

A. Bignonia

B. Marsilea

C. Bombax

D. Citrus

Answer: D

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35. China rose is

- A. superimposed opposite
- B. Alternate
- C. Whorled
- D. Decussate opposite





36. More than two leaves arise at each node and form a whorl or a circle in

A. Nerium

B. Calotropies

C. Alstonia

D. Both (1) & (3)





37. Select the correct statement for racemose inflorescence

A. The shoot axis shows definite growth

B. Flowers are borne in basipetal

succession

succession

D. Older flowers are present towards the

apex and younger flowers are present at

the base

Answer: C

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38. Who is the father of medicine?





39. Verticillaster inflorescence is a cluster of

sessile or subsessile flowers borne on a

A. (a) Dichasial cyme ending in a

monochasial cyme

B. (b) Scorpioid cyme ending in a

monochasial cyme

C. (c) Scorpioid cyme ending in a dichasial

cyme

D. (d) Monochasial cyme ending in a

dichasial cyme

Answer: A



40. Select the mismatch

- A. Corymb Capsella
- B. Capitulum Sunflower
- C. Cyathium Salvia

D. Hypanthodium - Ficus

Answer: C

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41. Gall flowers present in between both male and female in hypanthodium cyme, are

A. Bisexual flowers

B. Male flowers

C. Sterile flowers

D. Both (2) & (3)

Answer: C

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42. Statement- A: Thalamus is the swollen end of the pedicel of a flower. Statement- B: In Lily, calyx and corolla are not distinct.

A. Both statement A and B are incorrect

B. Both statement A and B are correct

C. Only statement A is correct

D. Only statement B is correct

Answer: B

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43. Which of the following is an accessory organ of flower?

A. (a) & (c)

B. (b) & (c)

C. (a) & (d)

D. (b) & (d)

Answer: D



44. Select the odd plant hypogonous flowers.

A. Mustard

B. Rose

C. China Rose

D. Petunia

Answer: B

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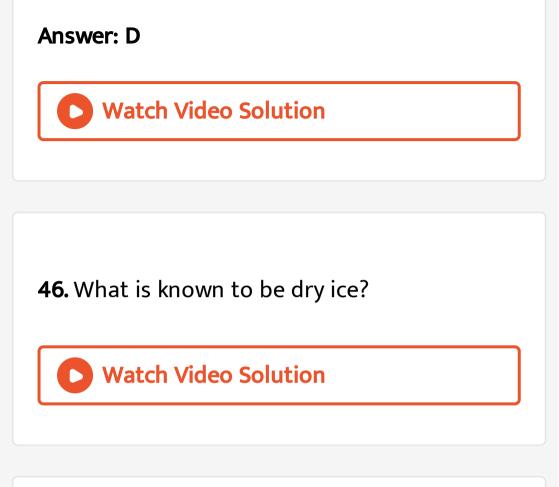
45. The ray florets of sunflower has

A. No ovary

B. Superior ovary

C. Half inferior ovary

D. Inferior ovary



47. Define the process of making food by the

plants.

48. Aestivation is the mode of arrangement of

A. Androecium or Gynoecium in a floral bud

B. Androecium or Calyx in a floral bud

C. Corolla or Gynoecium in a floral bud

D. Calyx or Corolla in a floral bud

Answer: D

49. In which of the following flowers, no overlapping between the sepals or petals is observed?

A. Cotton

B. Cassia

C. Calotropis

D. China Rose

Answer: C

50. In vexillary aestivation, largest petal, two smaller lateral petals and two smallest anterior petals are referred as ____, ___ and , respectively.

A. Wings, keel, standard

B. Standard, wings, keel

C. Standard, keel, wings

D. Keel, standard, wings

Answer: B

51. Select the incorrect option w.r.t. male reproductive system of a flower.

A. It is third whorl of the flower which arises just inner to the calyx and is composed of stamens.

B. A stamen consists of anther and filament

C. Anthers are usually bilobed

D. Staminode is the sterile stamen





52. Select the correct option w.r.t. flower with diadelphous stamen

A. Citrus

B. China Rose

C. Pea

D. Lily





53. Cohesion and adhesion

A. Lily and brinjal

- B. Pea and brinjal
- C. China rose and brinjal
- D. Brinjal and pea

Answer: D



54. In flowers which of the following plants, fused carpels are found?

A. Rose and Tomato

B. Mustard and tomato

C. Mustard and rose

D. Lotus and rose

Answer: B





55. In which of the following placentation, false septa is formed?

A. Marginal

B. Free central

C. Axial

D. Parietal

Answer: D

56. Match the following

 Column-I
 Column-II

 a. Hypodermis in dicot (i)
 Absent stem

 b. Pericycle in dicot stem
 (ii)

 c. Ground tissue in a monocot stem
 (iii)

3

d. Phloem parenchyma (iv) Sclerenchymatous in monocot stem

A. a(iv), b(v), c(ii), d(i), e(iii)

B. a(v), b(iv), c(iii), d(ii), e(i)

C. a(iv), b(v), c(i), d(ii), e(iii)

D. a(iv), b(v), c(ii), d(iii), e(i)

Answer: C



57. Read the following statements w.r.t. parthenocarpic fruits. (a) Ovary grows into a fruit without fertilization. (b) They are always formed from polycarpellary and apocarpous ovary. (c) They are seedless. (d) Are always true fruits. (e) Banana and grapes are parthenocarpic fruits. Select the incorrect option.

A. All except (b) & (d)

B. (b) , (c) & (d)

C. (d) only

D. (b) & (d)

Answer: D

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58. Select the mismatch option.

A. An etaerio of achenes - Strawberry

B. Hesperidum - Orange

C. Pome - Cucumber

D. Berry - Grapes

Answer: C

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59. Stony endocarp is a feature of

А. Реро

B. Drupe

C. Pome

D. Berry

Answer: B



60. Fruit of Mango and coconut develops from

A. Bicarpellary superior ovary

B. Monocarpellary superior ovary

C. Monocarpellary inferior ovary

D. Monocarpellary half inferior ovary

Answer: B

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61. Select the correct option w.r.t. plants bearing ovules which are borne on central axis and lack septa

A. Agremone and mango

B. Dianthus and primrose

- C. Tomato and lemon
- D. Primrose and marigold

Answer: B



62. which of the following plants bear flowers with variation in the length of filaments of stamens?

A. Salvia

B. Mustard

C. Lily

D. both (1) & (2)

Answer: D

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63. Syconus fruit found in Ficus develops from

__ inflorescence

A. Capitulum

- B. Hypanthodium
- C. Catkin
- D. Cyathium

Answer: B

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64. Outer and inner layer of seed coat are

___ and _____ respectively.

A. Tegmen and testa

B. Hilum and tegmen

C. Testa and tegmen

D. Testa and hilum

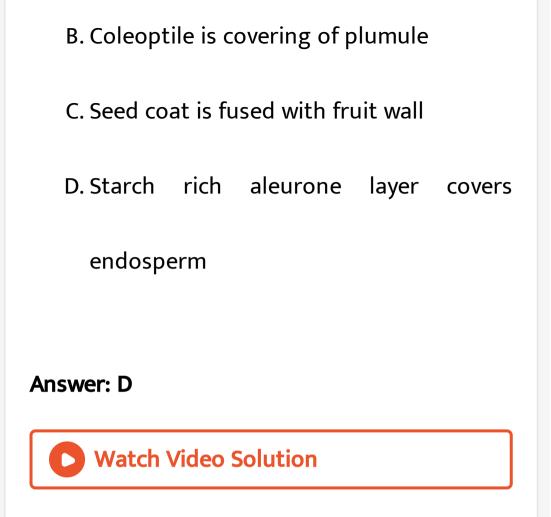
Answer: A

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65. Read the statements about monocot seed

and select the wrong one

A. Embryo has shield shaped scutellum



66. Select the odd one w.r.t non endospermic

seeds.

A. Bean

B. Castor

C. Groundnut

D. Pea

Answer: B

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67. _____is the outer covering of endosperm which separates the embryo in monocotyledonous seed.

A. Seed coat

B. Coleoptile

C. Coleorhiza

D. Aleurone layer

Answer: D

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68. Vexillary aestivation is seen in members of

A. Brassiceae

B. Fabaceae

C. Solanaceae

D. Liliaceae

Answer: B

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69. Which of the following member of fabaceae family has medicinal use?

A. Sesbania

B. Trifolium

C. Indigofera

D. Muliathi

Answer: D

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70. Give an account of the inflorescence seen

in the members of Solanceae family.

A. Umbellate clusters

B. Cymose

C. Racemose

D. Hypanthodium

Answer: B

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71. Define. Hibernation

72. which of the following meristems are referred as primary meristem and helps in primary growth of plant ?(a) intercalary meristem(b) apical meristem(c) lateral meristem

A. (b)&(c)

B. (a)&(b)

C. (a)&(c)

D. only (b)

Answer: B





73. Choose incorrect option w.r.t shoot apex

A. terminal position

B. produces nodes and internodes

C. primary meristem

D. differentiated into four histogens

Answer: D

74. Select the odd one w.r.t secondary meristem

A. (a) intrafascicular cambium

B. (b) wound cambium

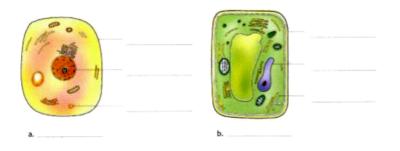
C. (c) interfascicular cambium

D. (d) cork cambium

Answer: A

75. Identify and label the diagrams given

below.



A. (a) Central cylinder (b) axillary bud (c) initials of root cap

B. (b)protoderm(c) initials of root cap(d)

root apical meristem

C. (a) cortex(c) root apical meristem (d)

root cap

D. (a) cortex(b) root apical meristem(c)

initial of root cap

Answer: B

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76. _____meristem found in grasses, helps to regenerate the parts removed by gazing herbivores

A. lateral

B. apical

C. intercalary

D. both(1)&(2)

Answer: C

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77. select the incorrect statement w.r.t lateral

meristem

A. found in natural regions of roots and

shoots

Β.

C.

D. helps in increasing length of the plant

Answer: D

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78. Mitotic poison is obtained from

A. Indigofera (fabaceae)

B. Asparagus(Liliaceae)

C. Colchicum autumnale(Liliaceae)

D. Pisum(Fabaceae)

Answer: C

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79. Collenchyma differs from parenchyma

A. as it forms the major component of plant organs
B. because it found in monocot plant
C. as it has generally isodiametric cells
D. because cells are thickened at the

corners

Answer: D

80. Which of the following is correct w.r.t the function of the sclerenchyma?

A. helps in food storage and secretion

B. provides mechanical support

C. performs photosynthesis

D. helps in conduction of H_2O

Answer: B

81. Parenchyma is a____ tissue with_____cell

wall.

A. Living,thick

B. Living, thin

C. Dead,thick

D. Dead,thin

Answer: B

82. Xylary element absent in most of the

gymnosperms

A. xylem parenchyma

B. tracheids

C. vessels

D. both(2)and(3)

Answer: C

83. The dead component of pholem

A. sieve tube elements

- B. Companion cells
- C. pholem parenchyma
- D. pholen fibres

Answer: D



84. In roots, the arrangement of xylem and vascular bundies is _ and _ respectively

A. Endarch, radial

B. Endarch, conjoint

C. Exarch, radial

D. Exarch, conjoint

Answer: C

85. How many of the given cells do not possess

nuclues? Companion cells Albuminous cells,

Mature seve tube, Xylary fibres. Scléreids.

Phloem parenchyma

A. One

B. three

C. four

D. two

Answer: B



86. Companion cells

A. Are specialised sclerenchymatous cells

B. Are specialised parenchymatous cells

C. Are associated with phloem fibres

D. Are without cell wall

Answer: B

87. Which of the following components of phloem is mostly absent in primary phloem?

A. Companion cells

B. Phloem fibres

C. Sieve tube elements

D. Phloem parenchyma

Answer: B

88. A waxy thick layer generally covers the epidermis which prevent water loss it is absent in

A. Stem

B. Root

C. Leaves

D. Flower

Answer: B

89. Ground tissue does not include

A. Epidermis

B. Cortex

C. Endodermis

D. Pericycle

Answer: A



90. In leaves, xylem and phloem are present

A. On different radii and arrangement is

called radial

B. On different radii and arrangement is

called conjoint

C. At the same radius and arrangement is

called radial

D. At the same radius and arrangement is

called conjoint

Answer: D

91. Dicot stems show scondary growth due to

A. Presence of cambium between xylem and

phloem

B. Presence of parenchyma between xylem

and phloem

C. Absence of cambium between xylem and

phloem

D. Absence of parenchyma between xylem

and phloem

Answer: A



92. All of the following statements are correct

for guard cell except

A. Bean shaped in dicots

B. Are green

C. Dumb-bell shaped in grasses

D. Outer walls are thick and the inner walls

are thin

Answer: D

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93. Ground tissue system of leaf is called

A. Conducting tissue

B. Mesophyll

C. Medullary rays

D. Spongy tissue

Answer: B



94. Casparian strips are seen in

A. Dicot root

B. Monocot stem

C. Monocot root

D. All except (2)

Answer: D

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95. Parenchymatous cells found between xylem and phloem in root represents

A. Conjunctive tissues

B. Medullary rays

C. Pith rays

D. Stele

Answer: A

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96. Read the following option

(a) Monocotyledonous roots have fewer xylem bundles (b) Monocotyledonous roots do not show secondary growth (c) Dicot root has small pith.

Select correct statement.

A. (a) & (c)

B. (b) & (d)

C. (b) & (c)

D. (C) & (d)

Answer: C

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97. Hypodermis is collenchymatous in

A. Monocot root

B. Sunflower stem

C. Monocot stem

D. dicot root

Answer: B

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98. Innermost layer of the cortex is called

A. Hypodermis

B. Pericycle

C. Endodermis

D. Cambium

Answer: C



99. Starch sheath is found in

- A. Sunflower stem
- B. Maize stem
- C. Mango root

D. Rice root

Answer: A

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100. The waxy layer covers the leaf epidermis

on

A. Adaxial surface only

B. Abaxial surface only

C. Both surfaces

D. Lower surface only

Answer: C

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101. Choose the incorrect statement w.r.t.

leaves

A. Nearly same size of vascular bundles are

seen in monocot leaf

B. The stomata are present on both

surfaces in isobilateral leaf

C. Mesophyll is not differentiated in dicot

leaf

D. Mesophyll is photosynthetic in leaves

Answer: C

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102. The bulliform cells are

A. Small

B. Empty

C. pigmented

D. Cortical cells

Answer: B

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103. All of the following tissues are involved in

secondary growth except

- A. Vascular cambium
- B. Lateral meristem
- C. Cork cambium
- D. Apical meristem

Answer: D



104. Cells of the cambium present between

primary xylem and primary phloem is

A. Intrafascicular cambium

- B. Interfascicular cambium
- C. Wound cambium
- D. Cork cambium

Answer: A

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105. Early wood

A. Is formed during autumn season

B. Has vessels of narrow cavities

C. Has large number of xylary elements

D. Is formed when cambium is less active

Answer: C

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106. Heartwood differs from sapwood as

A. It is peripheral

B. It is lighter in colour

C. It helps in conduction of water and

minerals

D. It comprises of dead elements with

highly lignified walls

Answer: D

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107. All tissues exterior to vascular cambium is

called bark which indudes

A. Phellogen + secondary xylem

B. Periderm + secondary xylem

C. Periderm + secondary phloem

D. Cork cambium + primary xylem

Answer: C

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108. Choose correct option w.r.t. origin of cork

cambium in dicot stem and root

- A. Completely primary
- B. Completely secondary
- C. Partly primary partly secondary
- D. Cambium is not formed at any stage

Answer: B



109. Read the following statements wrt artificial system of classification (a) Involves usage of one or few morphological characters

for grouping of organisms. (b) Aristotle used sexual characters as they are affected by environment. (c) Linnaeus gave sexual system of classification (d) Gave equal weightage to vegetative and sexual characteristics , Select the correct option

A. (b), (c) & (d)

B. (a), (b) & (c)

C. (a), (c) & (d)

D. (a), (b), (c) & (d)

Answer: C



110. Select the odd one out w.r.t. proponents of

phylogenetic system of classification

A. Hutchinson

B. Engler & Prantl

C. Joseph Dalton Hooker

D. Takhtajan







111. Study of raphides form the basis of

A. Phenetics

- B. Cytotaxonomy
- C. Karyotaxonomy
- D. Chemotaxonomy

Answer: D

112. Select the incorrect statement w.rt phenetics

A. Numbers and codes are assigned to all observable characters B. All observable characters are given equal Importance considering sexual characters on the topmost priority C. Organisation and analysis of data forms

core of numerical taxonomy

D. Notations like '0', + and - are used for

data not available, presence and absence

of character respectively

Answer: B

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113. Which of the following taxonomy is based

on chromosome structure and behaviour?

A. Chemotaxonomy

- B. Cytotaxonomy
- C. Karyotaxonomy
- D. Both (2) and (3)

Answer: D

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114. Choose the Incorrect option w.r.t. general

characters of algae.

A. Are mainly aquatic

B. Reproduces asexually only

- C. Shows variation in size
- D. Are atracheophytes

Answer: B

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115. Oogamous reproduction in algae involves

A. Male gamete- motile, female gamete -

non-motile

B. male gamete -non-motile, female gamete

motile

C. male gamete- non-motile, female gamete

non-motile

D. Both(1) and (3)

Answer: D

116. Family tree based on evolutionary relationship is called

A. (a) Karyogram

B. (b) Dendrogram

C. (c) Cladogram

D. (d) Idiogram

Answer: C

117. The most common method of asexual reproduction in algae involves formation of

A. Conidia

B. Aplanospores

C. Zoospores

D. Akinete

Answer: C

118. Which of the following is a colonial alga is

A. Spirogyra

B. Sargassum

C. Fucus

D. Volvox

Answer: D



119. Who is known as "the father of Phycology"?

A. H.A. de Bary

B. F.E. Fritsch

C. J. Eichler

D. John Ray

Answer: B

120. Sexual reproduction in Chlamydomonas is.

A. Oogamous

B. Isogamous

C. Anisogamous

D. All (1), (2) & (3)

Answer: D



121. Choose the odd one w.r.t. cryptogams

- A. Chlamydomonas
- B. Porphyra
- C. Anabaena
- D. Spirogyra

Answer: C



122. A natural system of classification is also

A. Anatomy, ultrastructure

B. Embryology, morphology

C. Phylogeny

D. Both (1) and (2)

Answer: D

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123. How many of the given features are associated with algae?Embryophytes,

Planogametes,

Tracheophytes,

Unicellular sex organs,

Zoospores

A. (a) Two

B. (b) Three

C. (c) Five

D. (d) Four

Answer: D

124. In green algae outer and inner layer of cell

wall is composed of (A) and (B) respectively

A. (A) Cellulose (B) Hemi cellulose

B. (A) Cellulose (B) Pectin

C. (A) Pectose (B) Cellulose

D. (A) Lignin (B) Cellulose

Answer: C

125. Select the correct option wrt motility and

origin of asexual spores of green algae.

A. Motile and endogenous

B. Non-motile and endogenous

C. Motile and exogenous

D. Non-motile and exogenous

Answer: A

and					
cholorophyll c are major pigments in					
andrespectively					
and					
and					
and					

D.	Ch	loro	phy	/ceae,
----	----	------	-----	--------

rhodophyceae and

phaeophyceae

Answer: D



127. Kelps are

- A. Filamentous brown algae
- B. Profusely branched brown algae

C. Profusely branched red algae

D. Colonial green algae

Answer: B

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128. Select the incorrect statement w.r.t. Dictyota.

A. Food is stored in the form of mannitol

B. Vegetative cells have coating of

algin, surrounding the cellulosic wall

C. Zoospores are pyriform and bear two

equal laterally attached fiagella

D. It is marine alga

Answer: C

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129. How many among the following are members of rhodophyceae and phaeophyceae, respectively?[Fucus, Ulothrix, Spirullina, Gelidium, Chalmydomonas nivalis, Porphyra, Chlorella, Polysiphonia Sargassum, Laminaria,

Ectocarpus, Gracilaria.]

A. 5,4

B. 3,5

C. 4,5

D. 4,4

Answer: D



130. Stored food in Polysiphonia is structurally

very similar to

A. Starch and amylose

B. Amylopectin and glycogen

C. Amylose and glycogen

D. Mannitol and amylopectin

Answer: B

131. Which of the following algae reproduce asexually by non-motile spores only?

A. Dictyota

B. Ectocarpus

C. Ulothrix

D. Polysiphonia

Answer: D

132. Which of the following algae are rich sources of iodine?

A. Polysiphonia and Dictyota

B. Laminaria and Fucus

C. Sargassum and Ectocarpus

D. Spirulina and Spirogyra

Answer: B

133. Hydrocolloids Carrageen" and "Algin" are

obtained

from_____ and

_respectively

A. Gelidium (red alga), Macrocystis pyrifera

(brown alga)

B. Chondrus crispus (brown alga), Gelidium

(red alga)

C. Chondrus crispus (red alga), Macrocystis

pyrifera (brown alga)

D. Macrocystis pyrifera (red alga), Gracilaria

(red alga)

Answer: C



134. Pear shaped gametes with two laterally

attached flagella are formed in

A. Polysiphonia

B. Ulothrix

C. Fucus

D. Spirogyra

Answer: C



135. Read the following statements.

(a) Algae are primary producers of energy rich compounds.

(b) Marine algae are producers of hydrocolloids.

(c) Stipe which is the leaf like photosynthetic

organ is found in Ectocarpus.

(d) Chlamydomonas shows only isogamous type of sexual reproduction.

(e) Atlantic Ocean's sargasso was named after

one of the brown algae.

Select the correct option:

A. All except (b) & (c)

B. All except (a) & (c)

C. All except (d)

D. All except (c) & (d)

Answer: D



136. Which photosynthetic pigment help members of Rhodophyceae to grow at great depths in oceans?

A. Phycocyanin

- B. Phycoerythrin
- C. Carotene
- D. Fucoxanthin





137. Agar is obtained from

A. Gracilaria

- B. Laminaria
- C. Gelidium
- D. Both (1) & (3)

Answer: D



138. _____and _____are unicellular algae, rich in proteins, that are used as food supplements even by space travellers.

A. Laminaria and Chlorella

- B. Spirogyra and Spirullina
- C. Spirullina and Chlorella
- D. Chlorella and Spirogyra

Answer: C



139. Select the incorrect statement w.r.t. plant body of bryophytes.

A. It is thallus like and may be prostrate or

erect

- B. It lack true roots, stems or leaves
- C. Xylem and phloem are present

D. It is attached to substratum by

unicellular or multicellular rhizoids





140. Dominant phase of bryophytes bear

- A. Multicellular sex organs
- B. Unicellular sex organs
- C. Spore mother cells
- D. Capsules

Answer: A



141. Read the following statements w.r.t. bryophytes.

(a) They are homosporous.

(b) They are first embryophytes.

(c) Zygote does not undergo equational division.

(d) Water acts as transfer medium for antherozoids to reach the archegonia.

(e) In mosses, spores germinate to form

filamentous gametophyte. Select the correct

option.

A. 1. (a), (b), (c) & (e)

B. 2. All except (c)

C. 3. (b), (c),(d) & (e)

D. 4. (a), (b) & (d) only

Answer: B

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142. which of the following form dence mats on the soil and play major role in preventing soil erosion?

A. Liverworts

B. Hornworts

C. Mosses

D. Algae

Answer: C

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143. How many among the following are haploid structure of bryophytes? Gametophyte, Zygote, Sporophyte, Seta, Rhizoid, Antheridium, Protonima, Antherozoid, Spore, NCC, Archegonium, Oosphere

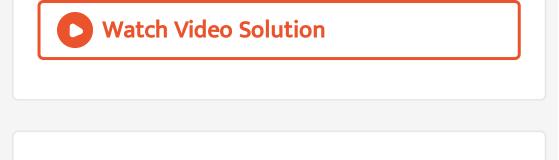
A. 6

B. 11

C. 9

D. 8

Answer: C



- 144. Gemmae are
 - A. non green, multicellular, asexual buds
 - B. green, multicellular, as exual buds
 - C. non green, unicellular, asexual buds
 - D. non green, multicellular, sexual buds

Answer: B



145. In Marchantia and Riccia, Antheridia and Archegonia are produced on - and - thalli respectively.

A. same, same

B. same, different

C. different, same

D. different, different

Answer: C

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146. which of the following features are true for bryophytes? (A) Zygotic meiosis (B) Zygotic mitosis (C) Sporic meiosis (D) Vegetative reproduction by fragmentation

A. (A),(B)&(C)

B. (B),(C)&(D)

C. Only (A)&(D)

D. (A),(B)&(D)

Answer: B



147. Statement-A: The mosses have an elaborate mechanism of spore dispersal.Statement-B: Leafy stage in mosses develops from secondary protonema as an apical bud.

A. Both statement-A and statement-B are

incorrect

B. Both statement-A and statement-B are

correct

C. Statement-B is incorrect

D. Statement-A is incorrect

Answer: C

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148. How many among the following are mosses and liverworts respectively?Sphagnum, Riccia, Polysiphonia, Fucus,Marchantia, Sargassum, Funaria,Porphyra,Porella, Polytrichum

A. 4,4

B. 4,5

C. 3,2

D. 3,3

Answer: D



149. Which bryophyte was used as a surgical

dressing during World war I?

A. Sargassum

- B. Funaria
- C. Sphagnum
- D. Porella

Answer: C



150. Select the odd one w.r.t. economic importance of bryophyte.

A. helps in water retention

B. used as Omamental

C. have medicinal uses

D. helps in overcoming soil alkalinity

Answer: B

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151. select the odd one w.r.t. the type of moss

which has great water holding capacity.

A. Bog moss

B. Peat moss

C. Cotton moss

D. Irish moss

Answer: D

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152. which bryophyte was employed in removing kidney stones?

A. Sphagnum

- B. Polytrichum commune
- C. Porella
- D. Funaria

Answer: B



153. which of the following is a dioecious bryophyte?

A. Riccia

- B. Marchantia
- C. Funaria
- D. Polytrichum

Answer: B

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154. select the incorrect match w.r.t.pteridophyta.

A. small leaves- microsporophyll in fems
B. large leaves- macrophyll in pteropsida
C. compactly arranged sporophylls- strobili
D. leaflets & leaves having sporanoiasporophylls

Answer: A

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155. Prothallus is

A. small,	multicellular,	free	living,
photosynthetic thalloid sporophyte			
B. small,	multicellular,	free	living,
photosynthetic gametophyte			
C. large,	multicellular,	, fre	e-living,
photosynthetic thalloid gametophyte			
D. large,	multicellular, fr	ee living	g, non
photosynthetic sporophyte			

Answer: B

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156. Read the following statements w.r.t. pteridophytes (a) they are soil binders (b) first terrestrial plants (c) first tracheophytes (d) dominant phase is differentiated into true stem, leaves and roots (e) sporophyte is an independent plant choose the correct answer.

A. a, b, c & d

B. all except d

C. all except b

D. b, c, d & e

Answer: C

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157. which of the following pteridophytes bear strobili?

A. equisetum

B. selaginella

C. dryopteris

D. both (1) & (2)

Answer: D

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158. Morphologically different types of spores are produced by

A. Lycopodium and Dryopoteris

B. Lycopodium and salvinia

C. Equisetum and Dryopoteris

D. Selaginella and salvinia

Answer: D

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159. Megaspores and microspores garminate to give rise to - and- respectively.

A. female and male sporophytes

B. male and female sporophytes

C. female and male gametophytes

D. male and female gametophytes

Answer: C

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160. Gametophyte of dryopteris is

A. monoecious

B. dioecious

C. trioecious

D. heterosporous





161. Which of the following has a dominant sporophytic generation?

A. funaria

B. selaginella

C. marchantia

D. both (1) and (3)

Answer: B



162. statement 1: In heterosporous pteridophytes, development of zygote into young embryo takes place within the female gametophyte. statement 2: Heterospory is one of the essentiality for seed habit in plants.

A. only statement-1 is correct

B. only statement-2 is correct

C. both the statements are incorrect

D. both the statements are correct

Answer: D



163. select the correct option w.r.t. Marsilea

A. Heterosporous vascular spermatophyte

B. Heterosporous vascular embryophyte

C. Homosporous vascular crytogam



embryophyte

Answer: B

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164. select the odd one w.r.t. members of class

'Pteropsida'.

A. dryopteris

B. pteris

C. Adiantum

D. selaginella

Answer: D



165. Simplest type of stele is

A. with Pith, siphonostele

B. without pith, protostele

C. without pith, siphonostele

D. with Pith, protostele

Answer: B

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166. which of the following statement is incorrect w.r.t. Azolla? (a) it is an aquatic water fern (b) it is used as biofertilizer (c) it is homosporous vascular cryptogam (d) it shows symbiotic association with alga Anabaena which fixes atmospheric nitrogen A. all except (c)

B. (a) & (b)

C. (c) only

D. (d) only

Answer: B

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167. which of the following pteridophyte is the

source of anthelmintic drug?

- A. Selaginella
- B. Equisetum
- C. Marsilea
- D. Dryopteris

Answer: D

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168. Is the tallest tree species

A. Cedrus

B. Pinus

C. Sequoia

D. Cycas

Answer: C

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169. Select the incorrect statement w.r.t. Cycas

A. Have specialised roots called coralloid

roots which are associated with N2 fixing

cyanobacteria

B. it is heterosporous

C. It has pinnate leaves which persist for

few years,(

D. It bears branched stems

Answer: D

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170. Read the following statements w.r.t. gymnosperms (a)Leaves in gymnosperms have thick cuticle and sunken stomata. (b)Zamia is the tallest gymnosperm. (c)Ginkgo biloba have fan shaped leaves (d)Microsporophyll are compactly arranged on central axis to form a microsporangia. (e) Two kinds of spores are produced within sporangia that are borne on male strobili

A. a),c),d),e)

B. a), c), d)

C. a), b), c) only

D. c), d),e) only

Answer: B

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171. Statement-A: male gametophyte in gymnosperms is highly reduced.Statement-B : Megasporophylls are compactly

arranged in Cycas.

- A. Only statement-A is incorrect
- B. Only statement-B is incorrect
- C. Both satements A and B are incorrect
- D. Both satements A and B are correct

Answer: B

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172. Select the correct agent of pollination in

gymnosperms

A. Water

B. Animals

C. Insects

D. Air

Answer: D

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173. Where does pollen tube discharge its

contents in gymnosperms?

A. On the microsporophyll

B. In the ovary

C. Near the mouth of archegonia

D. on the stigma

Answer: C

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174. Which structure among the following are

diploid structures of gymnosperms?

A. pollen grain

B. egg cell

C. microsporophyll

D. endosperm

Answer: A

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175. Select the correct features w.r.t. megasporangium of gymnosperms

A. have integument

B. also called ovule

C. have one archegonia always

D. Both 1 and 2

Answer: D

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176. Mark the odd option w.r.t. three generations in gymnospermic seed.

- A. Parental sporophyte
- B. Male sporophyte
- C. Female sporophyte
- D. Future sporophyte

Answer: B

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177. In gymnosperms, endosperm represent

A. Future sporophyte

B. Parental sporophyte

C. Male sporophyte

D. Female sporophyte

Answer: D

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178. Largest male and femal gamete are

formed by ____ and _____ respectively

A. Cycas, Pinus

B. Pinus, Cycas

C. Cycas, Cycas

D. Pinus, Pinus

Answer: C

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179. Which of the following plants is not present in order Gnetales?

A. Ephedra

- B. Metasequoia
- C. Gnetum
- D. Wetwitschia

Answer: B

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180. Which one of the following is not a living

fossil?

A. Cycas

- B. Metasequoia
- C. Gnetum biloba
- D. Wetwitschia

Answer: D

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181. Sulphur shower is the phenomenon related to

A. Reproduction in Cycas

B. Polination in Cycas

C. Polination in Pinus

D. Reproduction in Cedrus

Answer: C

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182. Drug used in curing respiratory ailments

is obtained from

A. Taxus

B. Ephedra

C. Pinus

D. Ginkgo

Answer: B

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183. Which is the female sex organ in a flower?

A. Pistil

B. Stamen

C. Carpel

D. both 1 and 3

Answer: D



184. Which of the following event is preceded

by formation of embryo-sac?

A. Division of megaspore mother cell by

mitosis

B. Endosperm formation

C. division of megaspore mother cell by

meiosis

D. Formation of female gamete

Answer: C

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185. How many egg cell, synergid(s), antipodal

cells and polar nulei are present in an embryo

sac?

A. 1,3,2,2

B. 1,2,3,2

C. 1,1,2,3

D. 1,3,3,2

Answer: B

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186. Primary endosperm nucleus is formed by

the fusion of _____ and _____

- A. Zygote and male gamete
- B. Male gamete and embryo
- C. Pollen grain and embryo
- D. Secondary nuclie and male gamete

Answer: D

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187. Select the option with incorrect satement

A. Bryophytes produce gametes by mitosis

B. Haploid spores are produced by diploid

sporophyte throgh meiosis

C. Life cycle of Spirogyra is haplodiplontic

D. Ulothrix shows zygotic meiosis

Answer: C

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188. Read the following statements.

(a) Volvox does not have a free living sporophyte.

(b) All alga show haplontic life cycle.

(c) Sporophyte of Fucus is dominant and photosynthetic.

(d) All seed bearing plants have diplontic life cycle

(e) Bryophytes have haplodiplontic life cycle

Select the option with correct set of statements.

A. (a), (b), (c) ,(d),(e)

B. all except (d)

C. all except (c)

D. all except (b)

Answer: D

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189. Find odd one wit haplontic life cycle

A. Ectocarpus

B. Kelps

C. Polysiphonia

D. Fucus

Answer: D



190. who introduced the idea of growing plants in soil-free and defined mineral solution ?

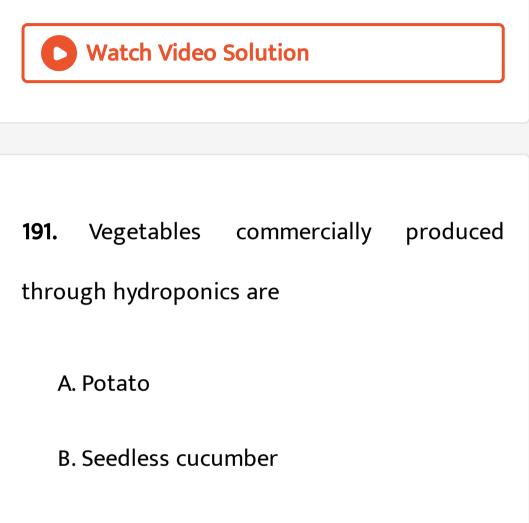
A. Juiius von Sachs

B. Joseph Priestley

C. Melvin-Calvin

D. Malpighi

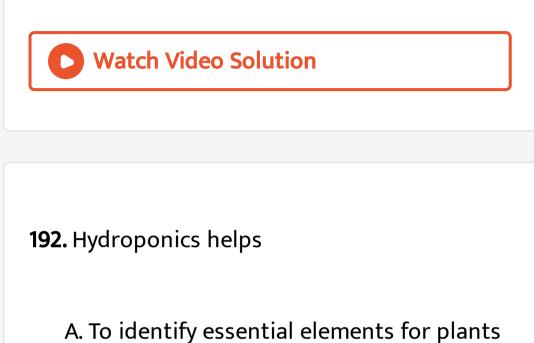
Answer: A



C. Lettuce

D. Both(2) and (3)





- B. To identify dficiency symptoms of element
- C. To study plant responses towards light
- D. All except (3)

Answer: D



193. A plant is growing in soil Which becomes nitrogen deficient due to some reason the deficiency symptoms due to nitrogen will b seen

A. First in young leaves

B. First in older leaves

C. Together in young and older leaves

D. First in developing tissues

Answer: B

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194. Beneficial mineral element accumulated by some plants is

A. Selenium

B. Copper

C. Iron





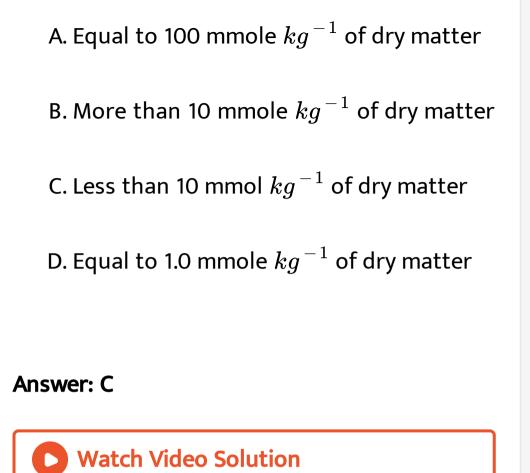
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195. Who is the father of Microbiology?

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196. The amount of mineral elements like iron,

copper and zinc are required by the plants is



197. Which of the following is not an essential

element but is required by the higher plants?

A. Nickel

B. Boron

C. Chlorine

D. Cobalt

Answer: D

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198. The element which plays an important role in opening and closing of stomata is

A. Cl

B. K

C. P

D. Ca

Answer: B



199. State true(T) or false (F) and choose the

correct option.

phosphorus is absorbed by the plants from

the soil in the from of phosphate ions.

cystine and methionine are sulphur containin

g amion acids.

iron is an important of ferredoxin.

A. T,F,T

B. F,T,F

C. T,T,T

D. F,F,F

Answer: C

200. How many of the following mineral elements are obtained from soil or crust of the earth?

Magnesium

sulphur

oxygen

phosphorus

carbon

potassium

B. 5

C. 6

D. 3

Answer: A

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201. Expand. PPLO

202. Deficiency symptom of N,K and Mg

appears first in

A. Younger leaves

B. Senescent leaves

C. Roots

D. Both(2) & (3)

Answer: B

203. Elements causing deiayed flowering at

low concentration are

A. N, S, P

B. N, S, Mg

C. N, S, Mn

D. N, S, Mo

Answer: D

204. At toxic levels of concentration of mineral element, the dry weight of tissue reduces by about

A. Half

B. 0.05

C. 0.1

D. 0.01

Answer: C

205. Symptoms of manganese toxicity are

A. Brown spots surrounded by chlorotic

veins

- B. Delayed flowering
- C. Synthesis of middle lamella
- D. White bud

Answer: A

206. The functions of epithelial tissue is/are

- (a) Protection
- (b) Absorption and secretion
- (c) Production of gametes
- (d) Transcellular transport

A. (a) , (b) & (c) Only

B. (a) & (b) Only

C. (a) , (b) , (c) & (d)

D. (a) Only

Answer: C





207. Which type of epithelium mainly provides

protection?

- A. Simple epithelium
- B. Compound epithelium
- C. Ciliated epithelium
- D. Pseudostratified epithelium

Answer: B

208. The cells of pavement epithelium when viewed from the surface appear ____ in shape

A. Polygonal

B. Cuboidal

C. Columnar

D. Ovoid

Answer: A

209. The trachea and bronchi are lined by

A. Pseudostratified ciliated columnar epithelium B. Stratified non-keratinised squamous epithelium

C. Brush bordered columnar epithelium

D. Ciliated cuboidal epithelium

Answer: A

210. Select the incorrect match w.r.t type of epithelium and its location

A. Transitional epithelium - Ureters are

urinary bladder

B. Brush-bordered columnar epithelium -

Intestinal mucosa

C. Stratified squamous epithelium - Alveoli

of the lungs

D. Brush-bordered cuboidal epithelium -

PCT (proximal convoluted tubule)

Answer: C

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211. Choose the incorrect statement w.r.t epithelium tissue

A. Basement membrane anchors the

epithelium to the underlying connective

tissue

B. Basement membrane is a cellular layer

C. Microvilli present on the free apical

surface of cells, increase the absorptive

surface area

D. Ducts of glands are mostly lined by

simple cuboidal epithelium

Answer: B

212. Which of the following glands is/are heterocrine gland(s)? (a) Pancreas (b) Sweat gland (c) Gonads (d) Mammary gland A. (a) & (c) Only B. (a) , (b) & (c) Only C. (b) & (d) Only

D. (a) , (b) , (c) & (d)

Answer: A

213. Salivary glands are examples of

A. Holocrine glands

B. Merocrine glands

C. Apocrine glands

D. Endocrine glands

Answer: B

214. Which of the following statements is incorrect?

A. Pseudostratified epithelium has multiple
layers of cells with nuclei at different
levels
B. Endocrine glands lack ducts, so they
secrete their products directly in the

blood

C. Buccal cavity is lined by stratified non-

keratinised squamous epithelium

D. In humans mammary gland is compound

tubuloalveolar

Answer: A

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215. The cellular junctions that join the epithelium cells to the basal lamina are

A. Desmosomes

B. Hemidesmosomes

C. Interdigitations

D. Tight Junctions

Answer: B



216. Tonofibrils are found in

- A. Desmosomes
- B. Tight junctions
- C. Gap junctions

D. Intermediate junctions

Answer: A

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217. The function/s of connective tissue is/are

to

(a) Connect different tissues or organs together.

(b) Provide strength, elasticity and support.

(c) Help in repair of tissues.

A. (a) , (b) & (c) Only

B. (b) & (c) Only

C. (b) Only

D. (a) Only

Answer: A

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218. White collagen fibres of connective tissue

are secreted by

A. Fibroblasts

- **B. Histiocytes**
- C. Plasma cells
- D. Macrophages

Answer: A

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219. Fibre-free matrix containing connective

tissue is

A. Bone

- B. Cartilage
- C. Blood
- D. Areolar tissue

Answer: C



220. The histiocytes of the connective tissue

are involved in

A. Heparin secretion

B. Phagocytosis

C. Inflammation

D. Absorption

Answer: B

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221. Tendon connects

A. Muscle to bone

B. Muscle to muscle

C. Muscle to skin

D. Bone to bone

Answer: A

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222. Ligament is

A. Dense irregular connective tissue

B. Loose connective tissue

C. Specialised connective tissue

D. Dense regular connective tissue

Answer: D

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223. Choose the correct statement

A. The organic content of bone is higher

than inorganic content

B. Tendon is elastic in nature

C. Hyaline cartilage is glass-like and opaque

D. Brown fat cannot be used as a

substitute of food

Answer: D

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224. Collagen fibres are

A. Unbranched and inelastic

B. Branched and inelastic

C. Unbranched and elastic

D. Branched and elastic

Answer: A

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225. Following are correct statements w.r.t. either bone of cartilage expect one. Mark the exception

A. Presence of calcium phosphate, calcium carbonate etc. makes the matrix of bone very hard and non-pliable B. Chondrocytes reside is spaces in the matrix called lacunae C. Haversian system consists os a central canal, surrounded by concentric layers of bony matrix D. Growth of cartilage occurs mainly by division of chondrocytes





226. Haversian system is a feature of

A. Compact bone

- B. Cancellous bone
- C. Both (i) & (ii)
- D. Spongy bone

Answer: A



227. Why do new-born mammals usually do not shiver in spite of lower temperature outside mother's womb?

A. Due to presence of areolar tissue

beneath the skin

B. Due to presence of brown fat

C. Due to presence of both brown fat and

white fat

D. Due to presence of white fat

Answer: B

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228. which of the following blood vessels have

valves to prevent the backflow of blood?

A. arteries

B. veins

C. capillaries

D. arterioies

Answer: B

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229. tunica media will be absent in the Wall of

A. arteries

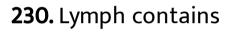
B. vena cava

C. capillaries

D. veins







- A. water soluble substances
- B. large proteins
- C. Red blood cells
- D. both 1 and 2





231. Consider the following statements. Choose the odd one:

A. High blood pressure affects vital organs

like brain and kidney

B. Left ventricle supplies oxygenated blood

to all parts of body.

C. In artherosclerosis lumen of arteries

that supplies blood to heart gets

narrower due to deposit of calcium, fat,

cholesterol etc.

D. Angina occurs due to condition that

affect the blood flow reaching the heart

muscle.

Answer: B

232. which of the following is characterize by

complete stoppage of heartbeat?

A. cardiac arrest

B. heart failure

C. heart attack

D. Angina poctoris

Answer: A

233. hypertension is characterized by

A. increase in systolic pressure beyond 80

mm Hg

B. increase in diastolic pressure beyond 120

mm Hg

C. increase in both systole and diastolepressure beyond 120 and 80 mm HgrespectivelyD. decrease in both systole and diastolepressures below 80 and 120 mm Hg

respectively

Answer: C

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234. find the incorrect match.

A. Angina pectoris - acute chest pain

B. heart failure - heart is not pumping

blood effectively to meet the needs of

the body

C. heart attack - heart muscles get damaged due to inadequate blood supply

D. myocardial infarction - heart stops

beating completely

Answer: D

235. which of the following is correct w.r.t lymphatic system of human?

A. lymph nodes are site of formation of

lymphocytes

B. lymph is devoid of all formed elements

which are present in blood

C. both right and left lymphatic duct drain

lymph into right subclavian vein

D. lymph transfers material from blood to

the body cells and vice versa therefore it

acts as a "middle man"

Answer: D

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236. which of the following set of organisms is

wrongly categorised as osmoconformers and

osmoregulators

A. palaemon(osmoconformers) and human

(osmoregulator)

B. frog (osmoconformer) and hagfish (

osmoregulator)

C. shark (osmoconformer) and lizard (

osmoregulator)

D. Torpedo(osmoconformers) and cow

(osmoregulator)

Answer: B

237. which of the following statements is correct w.r.t. osmoregulation in Marine environment?

A. entry of excess water in body followed by removal of large quantities of urine B. optic of monovalent and divalent ions by ionocytes actively C. loss of water from the body replenished by drinking sea water and eliminating

monovalent ions actively

D. loss of divalent ions are actively through

ionocytes

Answer: C

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238. which of the following is an incorrect match between organisms and their main excretory product

A. Cray fish (organisms) - Ammoria

(excretory product)

B. human (organisms) - urea (excretory

product)

C. birds(organisms) - uric acid (excretory

product)

D. frog (organisms) - ammonia (excretory

product)

Answer: D

239. which of the following metabolic waste is removed via ornithine cycle in human

A. NH_3

B. CO_2

C. Uric acid

D. both (1) & (2)

Answer: D

240. match the excretory products in column I and metabolic reactions during which they are produced in column II and choose the correct option. column I(excretory product) [a. ammonia, b. Guanines, c. creatinine, d. water] column II (metabolic reaction) [(i) carbohydrate metabolism, (ii) breakdown of creatine phosphate, (iii) protein metabolism, (iv) nucleotides metabolism]

A. a(iii), b(iv), c(ii), d(i)

B. a(iii), b(iv), c(i), d(ii)

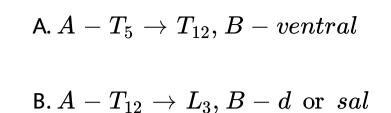
C. a(i), b(ii), c(iii), d(iv)

D. a(ii), b(i), c(iv), d(iii)

Answer: A



241. In humans ,kidneys are situated between A vertebra and close to the B inner wall of the abdominal cavity. A and B in the above mentioned statements are:



 $\mathsf{C}.\, A - T_{12}
ightarrow L_2, B - ventral$

 $\mathsf{D}.\, A-L_1
ightarrow L_5 B-d \,\,\, \mathrm{or} \,\,\, sal$

Answer: C

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242. extensions of cortex between the medullary pyramids of kidney and known as

A. columns of Bellini

B. Ducts of Bellini

C. Major calyces

D. renal papilla

Answer: A

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243. select the incorrect statement regarding

human excretory system

A. urothelium forms the internal lining of urinary bladder B. neck region of urinary bladder processes two sphincters, involuntary internal sphincter and voluntary external sphincter C in both male and female urethra acts as

urinogenital duct

D. kidneys are retroperitoneal in position

Answer: C



244. detrusor muscles are present mainly in

A. coat of kidney

B. muscular coat of urinary bladder

C. renal fascia of kidney

D. cortex of kidney

Answer: B

245. which of the following is an incorrect match regarding organisms, they are mood of excretion and their respective structure involve significantly in removal of nitrogenous excretory waste?

A. cockroaches (organism),

uricortelism(mode of excretion),

malpighiam tubules (structure involved

in nitrogenous waste removal)

B. prawns(organism), Ammonotelism (mode of excretion), green glands (structure involved in nitrogenous waste removal) C. Bony fishes (organism), ureotelism (mode of excretion), kidneys (structure involving nitrogenous waste removal) D. human (organism), ureotelism (mode of excretion), kidney (structure in was a nitrogenous waste removal)

Answer: C



246. how many renal corpuscles are approximately present in each kidney of human

A. one million

B. two million

C. three million

D. four million

Answer: A



247. which of the following set includes the correct location of different parts of cortical nephron inside kidney?

A. cortex (malpighiam corpuscles), cortex

(PCT), medula (DCT), medula (loop of

Henie)

B. cortex (malpighiam corpuscles), medula (PCT), medula (DCT), medula (loop of Henie) C. medula (Malpighiam corpuscles), medula (PCT), cortex(DCT), cortex (loop of Henie) D. cortex (Malpighiam corpuscles), cortex (PCT), cortex (DCT), medula (loop of Henie)

Answer: D

248. select the correct option: a. Glomerulus is a a tuft of capillaries formed by the afferent articles which is a fine branch of renal vein b. Giomerulus along with the bowman's capsule forms renal corpuscle c. Vasa recta is a find branch of afferent arteriole which runs parallel to Henie's loop d. in human kidney, cortical nephron and juxtamedullary nephrons are in equal proportion

A. a and b are correct

B. b and c are correct

C. a, b and d are correct

D. a and d are correct

Answer: B

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249. Which of the following cannot be considered as a point of difference between cortical and juxtamedullary nephrons?

A. length of the loop of Henie

B. presence or absence of Vasa recta

C. presence or absence of renal corpuscle

D. degree of extension of loop of Henie in

medulla

Answer: C

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250. podocytes are

A. epithelial cells and bowman's capsule

B. modified smooth muscles fibres of DCT

C. modified smooth muscles fibres of PCT

D. epithelial cells

Answer: A

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251. Which of the following steps of urine formation takes place in malphigian body?

- A. Glomerular filtration
- B. reabsorption
- C. Tubular secretion
- D. counter current mechanism

Answer: A

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252. Read the following statements:

Statement A: ultrafiltration of blood occurs in

renal corpuscles.

Statement B:during ultrafiltration, almost all the constituents of blood plasma except the proteins pass into the lumen of Bowman's capsule.

A. statement A is incorrect and B is correct

B. statement A is correct and B is incorrect

C. Both statement A and B is incorrect

D. Both statement A and B is correct

Answer: D

253. On an average, about <u>___</u>A__of blood pumped out by each ventricle in <u>___</u>B___ is filtered by the kidneys per minute. choose the option which correctly filled the blanks labelled as A and B

A. One fifth(A),Cardiac cycle(B)

B. One tenth(A), One minute(B)

C. One fifth(A),One minute(B)

D. One tenth(A),Cardiac cycle(B)





254. Which of the following is not a part of malpighian body?

A. glomerulus

B. podocytes

C. bowman's capsule

D. macula densa





255. Glomerular filtration rate (GFR) is :

A. amount of blood filtered by kidneys in an

hour

B. amount of filtrate formed by kidneys per

minute

C. only decreased by action of JGA

D. about 125 L/minute

Answer: B

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256. Choose the correct statement

A. during ultrafiltration, blood color osmotic pressure fever the glomeruler hypothetic pressure while capsular hydrostatic pressure opposes it

B. nearly 99% of filtrate is re-absorbed in PCT C. difference in diameter of afferent and efferent arterioles helps in development of filtration pressure in malphigian body D. about 1.5L filtrate is formed by kidneys in

a day

Answer: C

257. Which of the following is the correct match regarding cell as components of JGA A. Epithelial cells of PCT(macula densa), modified cells of vasa recta (juxtaglomerular cell) B. Epithelial cells of DCT(macula densa), modified cells of afferent arteriole(juxtaglomerular cells) C. Modified smooth muscle fibres of

afferent arteriole(macula densa),

epithelial cells of PCT(juxtaglomerular cell)

D. Epithelial cells of PCT(macula densa),

epithelial cells of DCT(Juxtaglomerular

cells)

Answer: B

258. Read the following statements (a)in tubular reabsorption, substances like glucose, amino acid,Na⁺, nitrogenous waste etc are reabsorbed by active transport, while reabsorption of water occur by passive transport (b) 50 -60% of electrolytes and water are absorbed by brush bordered cuboidal epithelium of PCT(c) conditional reabsorption of Na⁺ and selective secretion of H⁺ and K⁺ occurs in DCT(d) filtrate gets concentrated as it moves upward in ascending

limb of loop of henle. find the correct option

regarding true or false statement.

A. a(T),b(T),c(F),d(F)

B. a(F),b(T),c(F),d(F)

C. a(F),b(F),c(T),d(F)

D. a(T),b(F),c(T),d(f)

Answer: C

259. Which of the following plays a major role in maintaining a osmolarity gradient in medula of kidney?

A. NaCl and KCl

B. Urea and HCl

C. HCl and KCl

D. NaCl and Urea

Answer: D

260. Find the incorrect match regarding different segments of nephron and their concerned function

A. PCT-reabsorption of electrolytes and water

B. Descending limb of loop of henlereabsorption of water

C. ascending limb of loop of henle-

reabsorption of electrolytes

D. DCT-reabsorption of H^+ and K^+

Answer: D



261. Human kidneys can produce urine nearly ____A___times concentrated than initial filtrate formed . Select the option which correctly describes 'A' in the above statement.

A. Two

B. Four

D. Ten

Answer: B

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262. Match the column I and column II and choose the correct option (Column I) a.ADH b.Renin c.ANF d.angiotensin II (Column II) i.Vasoconstrictor ii.Vasodilator iii.Released from pituitary gland iv.Released by JG cells

- 1) a(iii),b(iv),c(I),d(ii)
- 2) a(iv),b(iii),c(ii),d(i)
- 3) a(iv),b(iii),c(i),d(ii)
- 4) a(iii),b(iv),c(ii),d(i)
 - A. a(iii),b(iv),c(I),d(ii)
 - B. a(iv),b(iii),c(ii),d(i)
 - C. a(iv),b(iii),c(i),d(ii)
 - D. a(iii),b(iv),c(ii),d(i)

Answer: D



263. Which of the following is true w.r.t diabetes insipidus?

A. caused due to excess secretion of ADH

B. increased loss of glucose via urine

C. diuresis and intense thirst

D. caused by deficiency of aldosterone

Answer: C

264. Which of the following acts as a check on

RAAS?

A. ANF

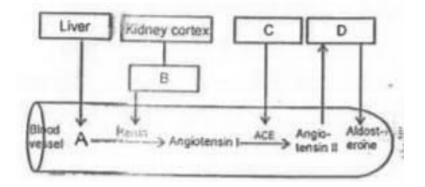
B. Aldosterone

C. ACE

D. Renin

Answer: A

265. Given below is flow chart of RAAS:



choose the option which correctly fills the blanks labelled as A,B,C and D

A. Angiotensin(A),Renal

artery(B),Lungs(C),Adrenal medulla(D)

B. Angiotensinogen(A), Renal vein(B), Kidney

medulla(C),Adrenal cortex(D)

C. Angiotensin(A), Renal artery(B), Kidney

medulla(C).Adrenal medulla(D)

D. Angiotensinogen(A),Renal

vein(B),lungs(C),adrenal cortex(D)

Answer: D

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266. Which of the following change is likely to occur in urine composition during diabetes mellitus?

A. Decrease in osmolanty of urine

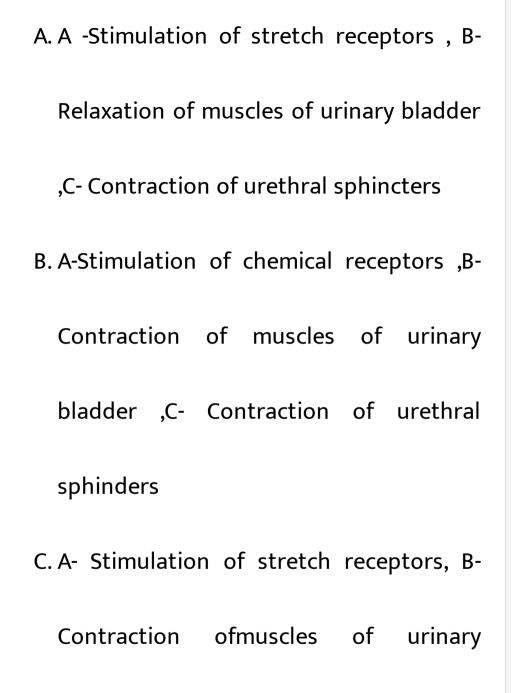
- B. Decrease in amount of urea in urine
- C. Presence of glucose in urine
- D. Presence of blood in urine

Answer: C

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267. Choose the correct option for the steps in

regard to the process of micturition



bladder ,C- Relaxation of urethral
sphincters
D. A-Stimulation of chemical receplors ,B-
Contraction of muscies of urinary
bladder, C-Relaxation of urethral
sphincters

Answer: C

268. Which of the following structures plays an important role in the elimination of diolesterol and degraded steroid hormones?

A. Lungs

B. Liver

C. Sweat gland

D. Sebaceous gland

Answer: B

269. Read the following steps of haemodialysis

: (a) Blood is taken out of the patient and is cooled to to 0°C ,

(b) Blood is mixed with anti-heparin.

(c) Blood is then pumped to artificial kidney.

(d) Blood is filtered,

(e) Blood is warm to study temperature and mixed with heparin ,

Which of the mentioned steps incorrect regarding dialysis ?

A. (a) & (e)

B. (C) & (d)

C. (b) & (e)

D. (e) & (f)

Answer: C

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270. In which of the following disorders, there

is an increase concentration of urea in blood ?

A. Uremia

B. Haematuria

C. Pyuria

D. Polyures

Answer: A

271. Match the column I with column II

Column I

- a. Glyoxysome
- b. Sphaerosome
- c. Mitochondria
- d. Peroxisome

Column II

- (i) Plant lysősomes
 - (ii) Glyoxylate cycle
 - (iii) Photorespiration
 - (iv) Succinate
 - dehydrogenase

A. a(iv), b(i),c(ii), d(iii)

B. a(i). b(iv), c(iii), d(ii)

C. a(iv). b(i). C(iii), d(ii)

D. a(iv), b(i),c (i), d (iii)

Answer: A





272. The composition of blood plasma and dialysing fluid is same w.r.t. all components except

A. Glucose

B. Nitrogenous wastes

C. Amino acids

D. Na⁺ ions

Answer: B



273. Which type of movement is performed by

spermatozoa of humans?

A. Ciliary movement

B. Amoeboid movement

C. Muscular movement

D. Flagellar movement

Answer: D



274. Individual muscle bundle is known as A_ and many bundles are held together by a collagenous sheath of connective tissue called_ B Choose the option which gives the correct answer for blanks in above statement.

A. (A) Fascia -(B) Fasciculi

B. (A) Fascia -(B) Endomysium

C. (A) Fascicle -(B)Endomysium

D. (A) Fascicle -(B) Fascia

Answer: D



275. Intercalated disc is characteristic feature of which type of muscle fibres?

A. Skeletal muscles

- B. Smooth muscles
- C. Both (1) & (2)
- D. Cardiac muscles

Answer: D



276. Among the following proteins : Tropomyosin, Troponin, F-actin, Meromyosin How many are present in I-band and H-zone respectively?

A. 3, 1

B. 3,2

D. 1,3

Answer: A

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277. Which of the following parts of contractile

proteins has ATPase activity?

A. G-actin

B. LMM

C. HMM

D. Tropomyosin

Answer: C

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278. Which of the following events leads to the breakdown cross-bridges during muscle contraction?

A. ATP hydrolysis

B. Binding of ATP to troponin

C. Binding of myosin head with new ATP

D. Binding of ATP to actin

Answer: C

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279. Which of the following statements is incorrect regarding Sliding Filament Theory?

A. Contraction of muscle is initiated by a

signal from motor neuron

B. in Ca2+ ion uptake by muscle fibre from ECF, leading to increase in intracellular Ca2+ level C. Ca2+ causes change in shape of troponin tropomyosin complex, thus exposing myosin binding sites on actin filaments D. Length of A-band remains unchanged during muscle contraction

Answer: B



280. In which of the following structures, $Ca2^+$ is sequestered when muscles are relaxed?

- A. Cell membrane
- B. Sarcoplasmic reticulum
- C. Mitochondia
- D. Golgi body

Answer: B



281. Which of the following statements is true regarding all or none principle?

A. All stimuli irrespective of their strength

can cause contraction of muscles

B. By increasing the strength of stimulus

strength of muscle fibre's contraction

increase

C. All stimuli which are above the threshold

D. Both (2) & (3)

Answer: C

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282. A single isolation of muscle fibre is known

as

A. Twitch

B. Tetany

C. Cramp

D. Muscle tone

Answer: A

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283. a_ donates high energy and phosohate to ADP, production of ATP. B_ is again formed in relaxing muscle is using c_ and b_ . Choose the option which correctly fills up the blanks a, b,c,

A. a = Creatin ,b=Phosphocreatine , c=ADP ,

d= creatine

B. a=Phosphocreatine ,b=Phosphocreatine ,

c= ATP ,d=creatine

C. a = Creatin ,b= Creatin ,c=ADP, d= Creatin

D. a=Phosphocreatine, b =Creatine, c=ATP d=

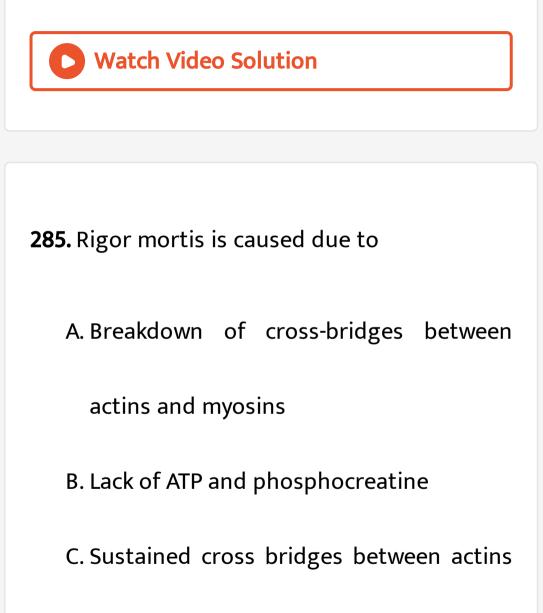
Phonephocreatine

Answer: B

284. Select the correct statement regarding Cori's cycle

A. Entire lactic acid is converted into glucose in muscles B. About 1/5th of lactic acid is oxidised to CO, and water C. Oxidative breakdown of glucose in muscles produces lactic acid D. Both (1) & (3)





and myosins

D. Both (2) & (3)

Answer: D

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286. Red muscle fibres can be distinguished from white muscle fibres as the former have

A. Less amount of mitochondria

B. Fast rate of contraction for short period

C. Less sarcoplasmic reticulum

D. Anaerobic respiration as main mode of

ATP generation

Answer: C

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287. Which of the following statements is incorrect?

A. Calmodulin and calsequestrin are calcium binding proteins found in

smooth muscles and skeletal muscles respectively B. Length of a muscle fibre shortens during isometric contraction while it remains same during isotonic contraction C. Summation occurs when a second stimulus is given before complete relaxation of muscle in response to the first stimulus

D. Muscle fatigue and cramps are caused

due to accumulation of lactic acid in

them

Answer: B

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288. Which of the following disorders is characterised by rapid spasm in muscles due to lack of Ca in body fluids?

A. Tetany

B. Muscle atrophy

C. Muscular dystrophy

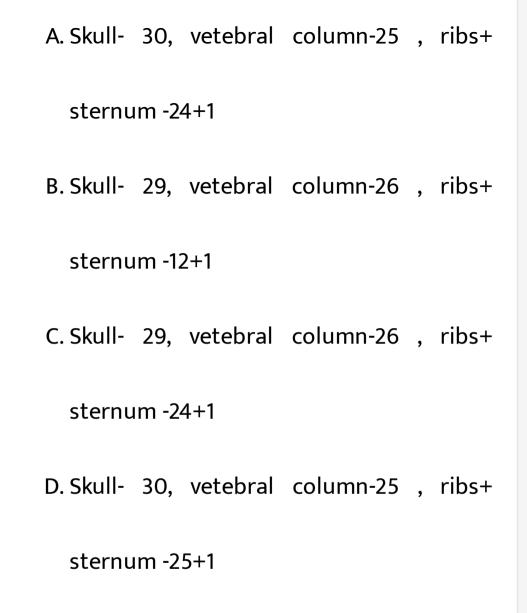
D. Myasthenia gravis

Answer: A

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289. Find the correct option regarding the number of bones present in given part of axial

skeleton



Answer: C

290. Which of the following skull bones articulates with the atlas vertebrae?

A. Parietal

B. Temporal

C. Ethmoid

D. Occipital

Answer: D

291. Match the column I with column II and choose the correct option :

a. Mandible -(i) Prominence of cheek ,

b. Zygomatic -(iii) Has sella turcica which lodges the pituitary gland ,

c.. Sphenoid -(iv) Amplification of sound. d.Incus -(ii) Strongest facial bone

A. a(ii), b(iii), c(i), d(iv)

B. a(iii), b(i), c(i), d(iv)

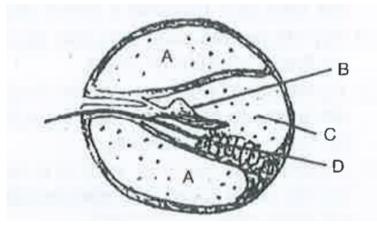
C. a(i), b(iii), c(i), d(iv)

D. a(i), b(ii), (iii), (iv)

Answer: A

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292. Given below is a diagrammatic cross section of a single loop of human cochlea



Which one of the following options correctly

represents the names of three different parts

A. A&B

?

B. B&D

C. C&D

D. A&C

Answer: D

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293. Which of the following is a correct match between a vertebra and its characteristic feature which helps in its identification? A. Atlas - Has odontoid peg B. Thoracic vertebrae - 12 pairs C. Lumbar vertebrae - Centra have articulation facets for ribs D. Vertebra prominens (7th cervical vertebra) - Undivided spinous process with tubercle at the tip

Answer: C



294. Read the following statements regarding Rib cage and its components, a-Formed by ribs, sternum and thoracic vertebrae, b- Ribs articulate with sternum on dorsal side and thoracic vertebrae on ventral side. c- Vertebral ribs articulate with thoracic vertebrae only.

d- First 8 pairs of ribs directly articulate with

sternum. Choose the option which includes

only incorrect statements

A. (a) & (b)

B. (a) only

C. (b) & (d)

D. (b), (c) & (d)

Answer: C



295. All ribs are bicephalic which means

A. They articulate with both sternum and

vertebral column

B. They articulate with sternum only with

two aticulation points

C. They have two articulation points on dorsal side

D. They have one articulation point on

dorsal side and one on ventral side





296. Glenoid cavity is

A. A depression which articulates with head

of femur

B. A depression present in pelvic girdle

C. A depression present in femur

D.A depression of pectroal girdle which

articulates with the head of humerus

Answer: D

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297. How many bones are present in human palm?

A. 8 Carpals + 5 Metacarpals

B. 5 Metacarpals + 14 Phalanges

C. 5 Metacarpals only

D. 8 Carpals + 5 Metacarpals + 14 Phalanges

Answer: C

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298. The coxal bone of the pelvic girdle is

formed by the fusion of

A. b&d

B. c & e

C. a & d

D. b&e

Answer: D



299. WHICH OF THE FOLLOWING IS NOT

ASSOCIATED WITH PELVIC GIRDLE?

А. соха

B. acetabulum

C. patella

D. acromion

Answer: A



300. Bones present in cranium are Linked to each other by

A. Amphiarthrose joints

B. Synarthrose joints

C. Synovial joints

D. Diarthrose joints

Answer: B



301. Which of the following is a correct match

between disease and its respective cause

A. Gout- Deposition of urea in synovial

joints

B. Rheumatoid arthritis - Deficiency of dystrophin protein
C. Osteoporosis - Imbalance between calcitonin and parathyroid hormone levels

D. Rickets - Autoimmune disorder

Answer: C

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302. Resting membrane potential of a neuron

is

A. -55 mV

B. -60 mV

C. -70 mV

D. 90mV

Answer: C

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303. Read the following statements, A.)Action potential propagates across the neuronal membrane B) Repolarisation decreases the responsiveness of neuronal membrane to further stimulus C) At resting stage, neuronal membrane is negatively charged on the inside and positively charged on the outside. D) For every $2Na^+$ ions which are transported inside the cell, $Na^+ - K^+$ pump transports $3K^+$ ions to outside, Choose the option which includes correct statements only,

B. a & c

C. b&d

D. a & d

Answer: B

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304. Depolarisation of neuron is caused due to

1) Opening of K + leak channels

2) Opening of voltage gated K + channels

3) Opening of voltage gated N a + channels

4) Both (2) & (3)

A. Opening of K^+ leak channels

B. Opening of voltage gated K^+ channels

C. Opening of voltage gated Na^+ channels

D. Both (2) & (3)

Answer: C

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305. Read the following statements. Statement A: Action potential generation in neurons follow all or none principle. Statemont B: Higher than threshold stimulus causes larger amount of voltage change in neuron's interior Choose the correct option

A. Both statements A and B are correct

B. Statement A is correct and B is incorrect

C. Statement A is incorrect and B is correct

D. Both statements A and B are incorrect

Answer: B



306. Find the incorrect match between various events during nerve impulse generation and their reason

A. Depolarisation - Opening of voltage

gated Na^+ channels

B. Repolarisation - Opening of voltage

gated K^+ channels

C. Hyperpolarisation - Closure of voltage

gated K^+ channels

D. Polarized state - Mainly K^+ leak

channels and Na^+K^+ pump work

Answer: C

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307. Which of the following is an incorrect statement?

A. A threshold stimulus is required for the opening of voltage gated channels B. As soon as threshold stimulus is applied, it causes depolarisation of the entire axonal membrane simultaneously C. In myelinated nerve fibre, the nerve impulse does not travel as continuous wave of depolarisation due to presence of myelin sheath

D. Initially, polarity of neural membrane is

reversed only at the site where

threshold stimulus is applied

Answer: B

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308. How do nerve impulses on a neuron travel

only in one direction?

A. Presence of
$$Nrac{a^+}{K^+}$$
 pump

B. Presence of myelin sheath C. Change in polarity of membrane occuring only in one direction, away from the site of stimulus D. Change in polarity of membrane occurring only from axon terminals towards axon Hillock

Answer: C

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309. Which of the following changes occur in axon membranes during repolarisation? A. Decrease in permeability of K^+ leak

channels

B. Opening of Na^+ voltage gated channels

C. Inhibition of
$$Nrac{a^+}{K^+}$$
 pump

D. Opening of voltage gated K^+ channels

Answer: D

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310. What is myelin ? How are myelinated neurons differnet from unmyelinated neurons ?

A. Lack both Schwann cells and myelin sheath

B. Lack only myelin sheath

C. Lack only Schwann cells

D. Lack neurilemma and Nissl's granules

Answer: B



311. Read the following statements, br (a)Unipolar neurons are found in retina of eye and olfactory epithelium, br (b) Except microglial cells, all cells of nervous tissue develop from ectoderm, br (c) Astrocytes and neurolemmocytes perform functions like phagocytosis and providing nutrition to the neurons respectively, br (d) Unmyelinated neurons are commonly found in autonomous

neural system, br Choose the option which

includes correct statements only,

A. (b) & (d)

B. (a), (b) & (d)

C. (b),(C) & (d)

D. (a) & (c)

Answer: A



312. Which of the following is not true w.r.t electrical synapse?

A. Transmission of impulse across an electrical synapse is faster as compared to chemical synapse
B. Electrical synapse is rare in human nervous system

C. Two neurons having electrical synapse communicate via tight junctions

D. Synaptic cleft is greatly reduced in

electrical synapse

Answer: C

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313. Exocytosis of synaptic vesicles containing

neutransmitters at synaptic cleft occurs due

to

A. Influx of Ca^2 + ions into dendrites

B. Efflux of Ca^2 + ions from axon

terminals

C. Influx of $\hat{} 2 +$ Ca ions into the synaptic

knobs

D. Efflux of Ca^2 + ions from dendrites

Answer: C

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314. At neuromuscular junction,(a) released by (b) binds to its receptors present on (c) thus generating action potential in latter.Choose the option which gives the correct answer for the blanks in the statement given above.

A. a - Glycine, c- dendrites

B. b-Axon terminals, c- Sarcolemma

C. a- Acetylcholine, b- Myocytes

D. b - Myocytes, a - Axon terminals

Answer: B



315. Read the following statements, Statement:-{ A:}Somatic neural system (SNS) and Autonomic nervous system (ANS) are parts of PNS. Statement:-{ B} SNS controls the actions of skeletal muscles while ANS controls the activity of involuntary organs like smooth muscles and glands of body. Choose the correct option

A. Both statements are correct

B. Only statement A is correct

C. Only statement B is correct

D. Both statements are incorrect

Answer: A

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316. Sub-arachnoid space is present between

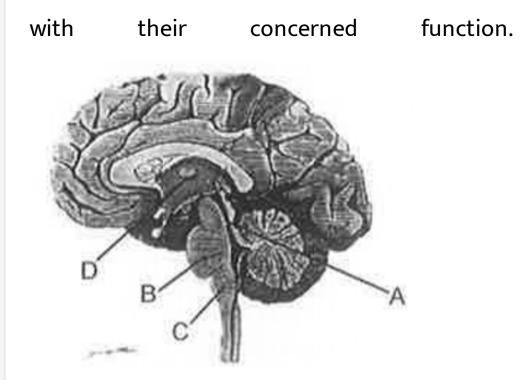
A. Cranium and duramater

- B. Duramater and arachnoid
- C. Arachnoid and pia mater
- D. Two lateral ventricles

Answer: C

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317. Given below is the diagram of human brain. Choose the correct match between various structures labelled as A, B, C and D



A. B- rapid eye movement(REM) sleep

B.A- Connects third ventricle to fourth

ventricle

C. C- Controls emotions

D. D- Execution of stereotyped movements

Answer: B



318. A person got injured in the head and afterwards. was not able to feel hot, cold and pain sensations. Which of the following structures of cerebrum probably got injured?

A. Frontal lobe

- B. Temporal lobe
- C. Occipital lobe

D. Parietal lobe

Answer: D

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319. Limbic system is concerned with all of the following, except

A. Regulation of sexual behaviour

B. Expression of emotional reactions

C. Conversion of short term memory to

long term memory

D. Regulation of breathing

Answer: D

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320. Find the correct match.

A. Foramen of Monro- Connects lateral

ventricles to third ventricle

B. Iter- - Connects two lateral ventricles

C. Foramina of Luschka- Connects third

ventricle to fourth ventricle

D. Foramen of Magendie- Opening in the

roof of third ventricle

Answer: A

321. Read the following statements and find the wrong statement (a) Optic lobes in humans are represented by two inferior colliculi of mid-brain. (b) Destruction of GABA secreting neurons leads to Parkinson's while Huntington's chorea is caused due to degeneration of dopamine secreting neurons. br (c) Human brain is greatly convoluted, consisting of numerous gyri and sulci. br (d) Amygdala is concerned with regulating moods, especially anger and rage.



322. Which of the following parts of brain is concerned with regulating body posture, equilibrium and coordinated rapid muscular activity?

- A. Diencephalon
- B. Pons
- C. Medulla
- D. Cerebellum

Answer: D



323. Amygdala is

- A. Component of limbic system
- B. Characteristic arrangement of gray and

white matter in cerebellum

C. Tree-like arrangement of neurons in

cerebrum

D. Component of mid-brain

Answer: A



324. Select the correct statement regarding spinal cord.

1) it has butterfly shaped gray matter which is

present outside white matter

2) It extends from medulla oblongata upto last

coccygeal vertebra

Its white matter consists chiefly of long,
 myelinated nerve fibers

4)Dorsal root ganglia contain cell bodies of motor neurons

A. it has butterfly shaped gray matter

which is present outside white matter

B. It extends from medulla oblongata upto

last coccygeal vertebra

C. Its white matter consists chiefly of long,

myelinated nerve fibers

D. Dorsal root ganglia contain cell bodies

of motor neurons





325. Which of the following cranial nerves is purely sensory in nature?

A. Spinal accessory

B. Hypoglossal

C. Vagus

D. Auditory

Answer: D



326. Find the incorrect match w.r.t. number of spinal nerves arising from different parts of it

A. Cervical nerves -7 pairs

B. Lumbar nerves- 5 pairs

C. Sacral nerves- 5 pairs

D. Coccygeal nerves - 1 pairs

Answer: A



327. Read the following statements carefully and choose the option including correct statements only (a) cranial nerves are motor in nature. (b)Lumbar plexus innervates chest and arms. (c) Lateral movements of eve are controlled by 3rd cranial nerve. (d)Cauda equina is a bunch of only cranial nerves which exit at the level of last sacral vertebra.

A. (b) & (d)

B. (a) & (b)

C. (a) & (c)

D. (b) & (C)

Answer: C

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328. Which of the following is not an example

of reflex action?

A. Withdrawal of limb upon touching a hot

object

B. Closing of eyes when strong light is

flashed across them

C. Watering of mouth on seeing favourite

food

D. Walking on a busy road

Answer: D

329. In a reflex arc, impulse from receptors is carried by afferent neurons towards

A. Ventral root ganglion

B. Dorsal root ganglion

C. Lateral horns

D. Lateral funiculi

Answer: B

330. Which is the incorrect statement w.r.t the

Unconditioned reflex

A. Is an inbom reflex

B. Can be inherited from one generation to

next

C. Does not depend on any learning

process

D. Needs the development of a new reflex

arc by a process of continuous repitition

Answer: D

331. In knee jerk reflex, A functions as receptor organ while B functions as effector organ, Choose the option which gives the correct answer for the blanks in above statement.

A. A-Patella bone B-Biceps muscles

B. A-Quadriceps femoris muscle B-

Hamstring muscle

C. A-Hamstring muscle B-Quadricep femoris

muscle

D. A-Patellar tendon B-Quadriceps femoris

muscle

Answer: D

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332. In Pavlov's experiments, which of the following was used as a stimulus for development of an acquired reflex?

A. Food

B. Smell of food

C. Sound of bell

D. Both (1) and (2)

Answer: C

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333. Read the following statements and select

the correct option

Statement 1 : The SA node acts as pacemaker

Statement 2 : The SA node is located in the wall of the right atrium near the interatrial septum

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334. Which of the following is an incorrect match regarding effects of sympathetic and parasympathetic nervous systems on different organs?

335. Consider the following characteristics wrt ANS. (a) Cranio-sacral outflow.br (b) Post ganglionic nerve fibres are shorter than preganglionic nerve fibres. br (c) Has adrenergic post ganglionic fibres. br (d) Has collateral ganglia situated in abdominal cavity. How many among the above mentioned characteristics describe the parasympathetic nervous system?

A. 1

C. 4

D. 2

Answer: D



336. Read the following statements. Statement

A: Post-ganglionic nerve fibres of sympathetic

nervous system are adrenergic. Statement B:

Acetylcholine decreases the heart rate but

adrenaline increases it. Choose the correct

option

A. Both statements are correct

B. Only statement A is incorrect

C. Only statement B is incorrect

D. Both statements are incorrect

Answer: A

337. Which of the following organs / structures lacks innervation from parasympathetic nervous system? A. Iris muscles B. Arrector pili muscles C. Liver D. Salivary glands

Answer: B

338. All of the following are under regulation of sympathetic and parasympathetic nervous systems except

A. Heart rate

- B. Digestive tract activity
- C. Learning
- D. Micturition

Answer: C



339. Match the columns and the correct answer Column 1 Receptor a.Staroreceptor b.Caloreceptor c.Phonordceptor d.Proprioreceptor Column 2 Examples 1.organ of Corti 2.cristae and maculae in internal ear 3.Ruffinis organs in skin 4.Golgi Mazzoni organ

A. a2 b3 c1 d4

B. a1 b3 c2 d4

C. a1 b2 c3 d4

D. a3 b2 c 1 d4





340. End bulbs of Krause in skin belong to the category of

A. Chemoreceptors

B. photoreceptor

C. Frigidoreceptors

D. Nociceptors





341. Choose the incorrect match between receptors their functions and examples

A. Receptor 1. Mechanoreceptors Function

Detect mechanical stimuli Examples

Meissner's corpuscles, Pacinian

corpuscles

B. Photoreceptors Function Detect visual stimuli Example Retina ommatidia C. Thermoreceptors Detect temperature changes Example end bulb of Krause Ruffinis organ in skin D. Chemoreceptors Function Detect chemical stimuli Example Nerve endings

Neuromost organs

Answer: D

342. State the incorrect statement with regard to the plant groups

A. Gymnosperms bear seeds but no fruits

B. Bryophytes bears seeds but no true

roots, stem or leaves

C. Ferns were the first plants to have

conducting tissue

D. Endosperm in gymnosperms is haploid

but in angiosperms is triploid





343. Which of the following statements are correct?

A. Bowman's gland

B. Mitral cells

C. Glomerulus

D. Basal cells

Answer: C



344. Nerve fibres from olfactory receptor transmit their impulses to A while impulses from gustatory receptors are transmitted to B of cerebrum.Choose the option which gives the correct answer for A and B

A. A Temporal lobe B Parietal lobe

B. Parietal lobe A Temporal lobe

C. A Frontal lobe B occipital lobe

D. A occipital lobe B Temporal lobe

Answer: D

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345. The order of the three layers of cells in

the retina of human eye from inside to outside

is

A. 1.ScleragtChoroidgtRetina

- B. Retinagtscleragtchoroid
- C. Retinagtchoroidgtsclera
- D. ChoroidgtRetinagtsclera

Answer: A

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346. Find the incorrect match

A. cornea acts as refracting structure of

B. Choroid prevents internal reflection of

light rays within eye

C. Lens regulates the amount of light

entering the eye

D. Suspensory ligaments attach the lens to

ciliary bodies

Answer: C

347. Following changes occur when we try to

look at a distant object except

A. 1.Suspensory ligaments are streched

B. lens becomes more curved

C. lens becomes thin and it's radius of

curvature increases

D. cilliary muscles are relaxed

Answer: C

348. When we migrate from dark to light, we fail to see for sometimes but after a time visibility becomes normal. It is example of

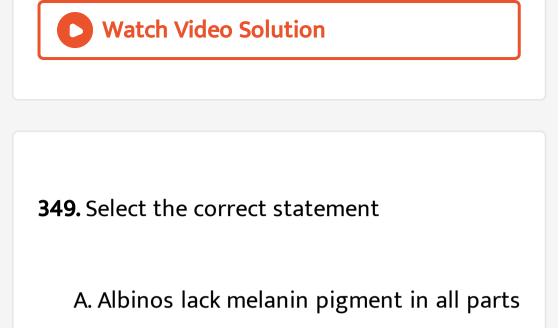
A. complete bleaching of pigments of bipolar cells

B. deformation of lens proteins

C. Time taken in dilation of pupil

D. Time taken for light adaption

Answer: B



of the body except eye

B. Ora serrata is the point where choroid

fuses with cilliary body

C. Opsin protein is continuously being manufactured in the eye by oxidation of

vitamin A

D. The relationship of photoreceptor cells

to bipolar cells to gangilon cells is 1:1:1

within the fovea

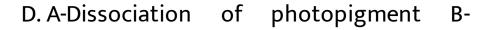
Answer: D

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350. Various steps involved in mechanism of vision are given below in the form of a flow chart light>photoreceptor cells>A>generate potential difference in photoreceptor

cells>B>C>visual cortex in brain CHOOSE THE OPTION WHICH GIVES THE ANSWER FOR A B and C

A. A---Formation of photopigment B-Ganglion cell C-Bipolar cells B. A-Dissociation of photopigment B-**Bipolar cells C-Ganglion cells** C. A-Formation of photopigment B-Bipolar cellsC-Ganglion cells



Ganglion cells C-Bipolar cells

Answer: D

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351. Which of the following disorders is caused due to shortening of eyeball in anteroposterior axis and can be corrected using convex lens?

A. Myopia

- B. Glaucoma
- C. Astigmatism
- D. Hypermetropia

Answer: B



352. Select the incorrect match between the

given structures and their locations.

A. Glands of Moll edges of eyelids

B. Glands of Zeis Follicles of eye lashes

C. Meibomian glands edges of eyelids

D. Bowman's glands upper eyelids

Answer: D

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353. Pink eye is caused due to

A. Blockage of canal of Schlemn

B. Damage to retina

C. Inflammation of conjunctiva

D. Opaqueness of lens

Answer: D

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354. Sudoriferous glands present in external

auditory meatus are

A. Meibomian glands

B. Glands of Zeis

C. Glands of Moll

D. Ceruminous glands

Answer: D

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355. Among the three ear ossicles. A receives the sound vibration from tympanum while B passes them to fenestra ovalis

A. A stirrup B Malleus

B. A Anvil B Stapes

C. A Malleus B Anvil

D. A Malleus Bstapes

Answer: C

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356. Read the following statements STATEMENT (A) Middle ear, which is filled with endolymph contains three ossicles which

increases the amplitude of sound. Statement-

(B) Eustachian tube helps in equalising the pressure on either side of ear drum

A. Both statements are correct

B. only statement A is correct

C. only statement B is correct

D. both statements are correct

Answer: D

357. All of the below are true w. r. t organ of Corti except

A. located on Reissner's membrane

B. pressing of stereocilia against tectonical

membrane generates nerve impulses

C. impulses are carried to brain by cochlear

branch of auditory nerve

D. it does not have any role in balancing

Answer: D

358. choose the correct answer with regard to

Helicotrema

A. 1.connection between scala vestibuli and

scala tympani

- B. 2.Dynamic balance of body
- C. 3.Static balance of body
- D. 4.part of middle ear connecting to

pharynx





359. Read the following statement.State whether true or false

A.scala media is also known as cochlear duct

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360. Read the following statement

Statement A Neural impulses generated in

response to sound are received by the brain from ears. Statement B Neural impulses for equilibrium are by the brain from ears as well as receptor present in the muscles, tendons, joints, skin and eyes

A. Both statement are correct

B. Both statement are incorrect

C. only statement A is incorrect

D. only statement B is correct

Answer: A





361. Hormone that does not pass through hypophyseal portal veins is

A. GnRH

B. TRH

C. Oxytocin

D. GHRH

Answer: C

362. Find the correct match between hormone and its source gland

A. Oxytocin - Anterior pituitary

B. Gonadotropins - Hypothalamus

C. PRL - Adenohypophysis

D. ADH - Neurohyphophysis

Answer: C

363. Read the following statements. Statement -A : Giagantism and acromicria are both caused due to over secretion of growth hormone. Statement-B : Gigantism occurs due to overactivity of pituitary before puberty while acromocria occurs due to pituitary hyposecretion after pubrty. Choose the correct option.

A. Both statements are incorrect

B. Only statement A is incorrect

C. Only statement B is incorrect

D. Both statements are correct.

Answer: B

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364. Which of the following is a correct match between hormone, its source gland and the disorder caused due to its over secretion.

A. Oxytocin (Hormone) Pars intermedia

(Source gland) Addison's disease

(Disorder)

B. Thyroxine (Hormone) Thyroid gland (Source gland) Grave's disease (Disorder) C. TSH (Hormone) Pars distalis (Source gland) Guli's disease (Disorder) D. Calcitonin (Hormone) Thyroid gland (Source gland) Cretinism (Disorder)

Answer: B

that stimulates 365. Hormone spermatogenesis in males and follicular development in overies in female is A. FSH B. ADH C. PRL D. ACTH Answer: A

366. Select the correct statement.

A. stimulating hormones produced by adenohyphophysis control the activities

of other glands

B. adenohypophysis does not produce any

hormones

C. Diabetes insipidus is characterised by

hypertonic urine, diuresis and polydipsia

D. All endocrine glands store their hormones in glandular space before secreting them into blood supply Answer: B Watch Video Solution

367. Consider the following symptoms of a disorder.

(a) Mental retardation (b) Abnormal skin (c) Deaf-mutism (d) Stunted growth Which disorder is correctly described by these

symptoms?

A. Acromegaly

B. Myxedema

C. Exophthalmic goitre

D. Cretinism

Answer: D

368. Which of the following hormones is synthesised by using tyrosine as a precursor?

A. Thyrocalcitonin

B. Thyroxine

C. GH

D. ACTH

Answer: B

369. Which of the following characteristcs cannot be attributed to Collip's hormone?

A. Causes bone demineralisation

B. Antagonistic to calcitonin

C. Hypocalcemic hormone

D. It is a peptide hormone

Answer: C

370. All of the following pairs of hormones are

antagonistic, except

A. Calcitonin and parathormone

B. Cortisol and insulin

C. Insulin and glucagon

D. Calcitriol and Collips hormone

Answer: D

371. Match the columns and choose the correct answer.(a) Aldosterone (Column I) (i) Zona fasciculata(Column II) (b) DHEA (Column I) (ii) Zona

glomerulosa (Column II) (c) Cortisol (Column I)

(iii) Zona reticulans (Column II) (d) Adrenaline

(Column I) (iv) Adrenal medulla (Column II)

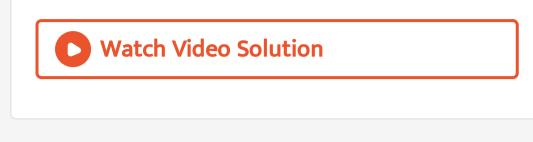
A. a(i), b(ii), c(iii), d(iv)

B. a(ii), b(iii), c(i), d(iv)

C. a(iii), b(ii), c(i), d(iv)

D. a(iii), b(i), c(ii), d(iv)





372. Cortisol does not cause

- A. Anti-flammatory reactions
- B. Proteolysis
- C. Enhanced RBC production
- D. Enhanced phagocytic activity of WBCs

Answer: D



373. Select the correct statement.

A. Thymus acts as factory for the synthesis

of both B and T cells

B. Melanin produced by epiphysis plays an

important role in maintaining circadian

rhythm of the body

C. Melatonin hormone delays puberty in

humans by opposing the action of LH

and FSH

D. Thymus acts a secondary lymphoid

organ

Answer: C

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374. Which of the following pairs of hormonal

disorders are caused due to hypersecretion of

hormones?

A. Osteoporosis and Addison's disease

B. Conn's syndrome and diabetes mellitus

C. Eunuchoidism and aldosteronism

D. Cushing's syndrome and adrenal virilism

Answer: D

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375. NIDDM is caused due to

A. Deficiency of insulin

B. Destruction of beta-cells

C. Reduced in number or lack of insulin

receptors on target cells

D. Deficiency of secretions from Islet of

Langerhans

Answer: C

376. Insulin produced by endocrine cells of pancreas, causes all except

A. Enhanced glucose uptake by the cells

B. Enhanced glycogenesis in liver and

muscles

C. Enhanced amino acid uptake and protein synthesis

D. Enhanced fat utilization for energy production

Answer: D



377. Which of the following disorders is characterised by bronze pigmentation of skin, low Na⁺ and blood sugar levels, high K⁺ level and nausea?

A. Conn's syndrome

B. Gull's disease

C. Addison's disease

D. Cushing's disease

Answer: C

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378. Which one of the following hormones is

not involyed in sugar metabolism

A. Glucagon

B. Cortisone

C. Thymosin

D. Insulin

Answer: C

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379. All sponges without any exception are

A. Sessile

B. Aquaic

C. Asymmetric

D. Both (1) & (2)





380. Pinacoderm in sponges is made by

A. Pinacocytes

B. Porocytes

C. Amoebocytes

D. Both (1) & (2)

Answer: D



381. Which of the following is not a characteristic feature of poriferans?

A. Endoskeleton

B. Motile larva

C. Internal and self fertilisation

D. Archaeocytes







382. Digestion in Hydra occurs

A. Intracellularly in gastrodermal cells only

B. Extracellularly in gastro-vascular cavity

followed by intracellular digestion within

gastrodermal cells

C. Extreacellularly in gastrovascular cavity

only

D. Intracellular in gastrodermal cell

followed by extracellular digestion in

coelenteron

Answer: B

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383. Euplectella

A. Has skeleton of siliceou spicules which

are triaxon with three rays

B. Live in commensal relationship wth shrimp and shrimps are benefited in this relationship C. Provide shelter for male and female shrimp and till death both male and female shrimp live together. So it is a precious marriage gift in japan

D. Both (2) & (3)

Answer: D

384. In sycon , choanocytes form lining of

A. Incurrent canal

B. spongocoel

C. Radial canal

D. Flagellated chamber

Answer: C

385. Choose the correct statement w.r.t. poriferans A. Gemmule is an asexual reproductive structure which develops inside the body B. Ther are classified into three classes based on symmetry and locomotory structures C. calcarea and hexactinellida animals are

exclusively marine and are found in deep

sea

D. Demospongiae animals occur exclusively

in fresh water

Answer: A

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386. Gastrovascular cavity is not the

characteristic feature of

A. Adamsia

B. Aurelia

C. Hydra

D. Cliona

Answer: D

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387. Ciliated solid larva is the characteristic feature of

A. Scypha

B. Obelia

C. Sycon

D. Hydra

Answer: B

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388. Consider the following structures

Nerve cells

Sensory cells

Interstitial cells

Cnidoblast

Gland cells

How many of above are common in epidermis

and gastrodermis of coelenterates?

A. A,B and C

B. D and E

C. A,B,C and E

D. A,C and E

Answer: C

389. Which of the following is true w.r.t. cnidoblast?

a. These oval shaped cells are abundant on tentacles than body surface

b. cnidocyte is a part of cnidoblast which is
 filled with a poisonous fluid

c. once nematoblast is used, it migrates to

gastrovascular cavity and digested

d. Nucleus is present in the centre of cell

A. (A) only

B. (A) and (B)

C. (A) and (C)

D. (B) (C) and (D)

Answer: C

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390. Choose the correct statement.

a. Hydra and Adamsia both belongs to same

class and exhibit only polyp from

b. Planula larva of Obelia is formed from polyp

from

c. planula larva is ciliated and formed from

zygote through cleavage

d. In most coelenterates fertilisation is external

A. Only (a)

B. (a) and (b)

C. (c) and (d)

D. Only (d)

Answer: C





391. Choose the correct match 戻

A. Metrdium - Blue coral

B. Pennatula - sea pen

C. Corallium - brain coral

D. Gorgonia - sea pen

Answer: B

392. Which of the folloing is not a function of cnidoblast?

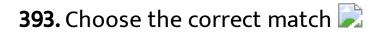
A. Anchorage

B. Capturing the prey

C. Defense

D. Digestion

Answer: D



A. Spongilla - Marine water sponge

B. Cliona - Dead man's fingers

C. Chalina - The boring sponge

D. Hyalonema - Glass rope sponge

Answer: D

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394. Mesoglea of ctenophores contain

A. Colloblast

- B. Cnidoblast
- C. Amoebocytes
- D. Germ cells

Answer: C



395. Which of the following statement is

correct regarding ctenophores?

A. Eight pairs of median comb plates help in locomotion B. They exhibit indirect development via phyra larval stage C. Statocyst is located at oral end D. They are hermaphrodite animals

Answer: D

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showing extrnal fertillisation

396. Ctenophores exhibit

- A. Bioluminescence
- **B. Sessile nature**
- C. Paedogenesis
- D. Both (1) & (3)

Answer: D



397. Organism which shows radial symmetry

and lack tentacles is

A. Hydra

B. Beroe

C. Homiphora

D. Ctenoplana

Answer: B

398. Read the following statement

All ctenophores have solid tentacles which

possess lasso cell without exception State true

or false



399. Consider the following characters : Marine habitat , Statocyst, Cnidoblast, Colloblast cells, Comb plates, tentacles How many characters are present in all adult ctenophores without any exception? A. Four

B. Five

C. Three

D. Six

Answer: D