BIOLOGY

NEET & AIIMS

TEST 3

Example

1. Select the correct match.

A. Sesbania - Fabaceae

B. Belladonna - Liliaceae

C. Aloe - Solanaceae

D. Asparagus - Brassicaceae

Answer: C

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2. The $C_{\widehat{(5)}}A_5$ condition is found in the floral formula or family

A. Liliaceae

B. Poaceae

C. Fabaceae

D. Solanaceae

Answer: D

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3. Lateral meristem may be

A. Primary in origin

B. Secondary in origin

C. Intercalary in position

D. Both (1) & (2)

Answer: D

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4. Which of the following characters is/are related isobilateral leaf?

(a) Stomata are present on both surfaces.

(b) Mesophyll is differentiated into palisade and spongy parenchyma.

(c) Sub-stomatal cavity is present below the stoma of the abaxial epidermis.

A. Only (a)

B. Only (c)

C. Only (a) & (c)

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

Answer: B

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5. Which one is the incorrect match?

A. Phylloclade - Opuntia

B. Stem thorn - Citrus

C. Rhizome - Potato

D. Com - Zaminkand

Answer: C

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6. Pulvinus is

A. Swollen leaf base

B. Cylindrical stalk that joins the leaf base with lamina

C. Lateral small leaf like structure

D. Modified petiole

Answer: D

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7. In vexillary aestivation, keel represents

A. The largest posterior petal

B. Two smaller lateral petals

C. Two smallest anterior petals

D. The largest anterior petal

Answer: D

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8. Supporting roots of maize stem, which arise from the lower nodes are called

A. Pneumatophores

B. Prop roots

C. Stilt roots

D. Contractile roots

Answer: A

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9. The endodermis of dicot stem is also referred as

A. Bundle sheath

B. Phellogen

C. Conjunctive tissue

D. Starch sheath

Answer: B

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10. State true(T) or false(F) to the given statements and select the correct option.

(a) All tissue layers exterior to the vascular cambium constitute bark.

(b) Root podermis is sclerenchymatous.

(c) Ground tissue of leaves is called mesophyll.

(d) Due to presence of casparian strips, endodermis is impervious to water.

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

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

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

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

Answer: D

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11. Read the following statements and choose the correct option.

Statement 1 : Coconut fruit develops from monocarpellary superior ovary and is one seeded.

Statement 2 : In drupe type of fruits, endocarp is stony.

A. Only statement 1 is correct

B. Only statement 2 is correct

C. Both statements are correct

D. Both statements are incorrect

Answer: A

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12. Choose the incorrect match

A. Axile placentation - China rose

B. Free central placentation - Dianthus

C. Polyadelphous stamens - Citrus

D. Tetradynamous condition of staments - Pea

Answer: D

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13. In litchi (Litchi chinensis), edible part is

(a) Fleshy mesocarp

(b) Aril

(c) Succulent testa

(d) Fleshy receptacle

A. Fleshy mesocarp

B. Aril

C. Succulent testa

D. Fleshy receptacle

Answer: D

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14. Tricarpellary, syncarpous, trilocular, superior ovary with axile placentation is found in

A. Mustard family

B. Grass family

C. Lily family

D. Potato family

Answer: D

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15. Select incorrect feature(s) from (a)-(d) regarding collenchyma tissue.

(a) Living mechanical tissue

(b) Absent in monocots

(c) May be photosynthetic

(d) Living non-mechanical tissue

A. Only (c)

B. Only (d)

C. Both (c) & (d)

D. Both (a) & (b)

Answer: A

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16. Exarch type of arrangement of primary xylem is seen in

A. Root

B. Monocot Stem

C. Leaf

D. Dicot Stem

Answer: C

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17. What is incorrect for companion cell?

A. It is specialised parenchymatous cell

B. It helps in maintaining the pressure gradient in the sieve tubes

C. It does not retain nucleus throughout the life

D. It is absent in gymnosperms

Answer: C

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18. In maize, the outer covering of endosperm separates the embryo by a protenous layer called

A. Coleoptile

B. Aleurone layer

C. Scutellum

D. Coleorhiza

Answer: B

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19. Which one is odd regarding endospermic seeds?

A. Orchid

B. Rice

C. Coconut

D. Wheat

Answer: C

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20. Floral formula of family fabaceae is

A.

$$Oplusma \leq \quad \text{or} \quad fema \leq K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$$

B.

$$\%\, ma \leq \quad \text{or} \quad fema \leq K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$$

C.

$$Oplusma \leq \quad \text{or} \quad fema \leq K_{(5)} C_{1+2+2} A_{(9)+1} \underline{G}_1$$

D. $\%\, ma \leq \quad \text{or} \quad fema \leq K_{(5)} C_{1+2+(2)} A_{9+1} \overline{G}_1$

Answer: A

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21. In grasses, guard cells of stomata are

A. Bean-shaped

B. Kidney-shaped

C. Sickle shaped

D. Dumb-bell shaped

Answer: D

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22. Root hairs are

A. Unicellular and endogenous in origin

B. Multicellular and endogenous in origin

C. Unicellular and exogenous in origin

D. Multicellular and exogenous in origin

Answer: D

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23. Read the following statements about dicot stem and choose the correct option

(a) Vascular bundles are arranged in a ring

(b) Vascular bundles are conjoint, collateral and open type

(C) Endarch type of arrangement of secondary xylem

A. Only (b) is correct

B. Only (c) is correct

C. Both (a) & (b) are correct

D. All (a), (b) & (c) are correct

Answer: C

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24. Select the mis-matched pair

A. $P \frown A$ - Epiphyllous stamens

B. $\overline{G}_n$ - Superior ovary

C. $C_{(n)}$ - Gamopetalous corolla

D. Ebr - Ebracteate flower

Answer: D

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25. Replum is a

A. Pseudoseptum

B. True septum

C. Feature of family Brassicaceae

D. Both (1) and (3)

Answer: A

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26. Identify the wrongly matched pair

A. Betel nut - One seeded berry

B. Bitter taste of some pepo fruits - Triphenyl tetrazolium chloride

C. Pome fruit - Pseudocarp

D. Syconus fruit - Develops from hypanthodium inflorescence

Answer: D

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27. Cymose inflorescence is not found in

A. Dianthus

B. Solanum

C. Triticum

D. Begonia

Answer: B

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28. In Cassia, symmetry of flower is

A. Radial

B. Bilateral

C. Asymmetric

D. Irregular

Answer: B

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29. During secondary growth, amount of

(a) Heartwood increases

(b) Sapwood increases

(c) Sapwood decreases

(d) Sapwood remains almost constant

A. Only (d)

B. (a) and (b)

C. (a) and (c)

D. (a) and (d)

Answer: B

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30. State true(T) or false(F) to the given statements and select the correct option.

(a) Annual rings are distinct in plants growing in

temperate regions.

(b) Lenticels occur in most woody trees and permit the exchange of gases.

(c) Due to stelar secondary growth, central cylinder of wood surrounded by secondary phloem is formed.

(d) The cells of endodermis opposite to protoxylem divide to give rise vascular cambium in dicot roots.

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

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

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

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

Answer: B

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31. Which of the following is an incorrect difference between heartwood and sapwood?

A. (Heartwood) Cannot conduct water. (Sapwood) Involved in conduction of water.

B. (Heartwood) Darker in colour. (Sapwood) Lighter in colour.

C. (Heartwood) Less durable & succeptible to attack of pathogens. (Sapwood) Durable & resistant to attack of pathogens.

D. (Heartwood) Occupies large central region. (Sapwood) Occupies peripheral region.

Answer: D

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32. Choose the mis-matched pair

A. Whorled phyllotaxy - Alstonia

B. Phyllode - Australian Acacia

C. Opposite phyllotaxy - Calotropis

D. Leaf tendril - Cucurbits

Answer: A

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33. The roots which arise from parts of the plant other than the radicle are called

A. Conical roots

B. Adventitious roots

C. Tap roots

D. Pneumatophores

Answer: A

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34. All the given statements w.r.t. flower are correct, expect

A. It is a modified shoot

B. It is a reproductive unit of angiosperms

C. It is trimerous in potato family

D. Calyx and corolla are accessory whorls of a flower

Answer: C

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35. Among soyabean, brinjal, tulip, rose, cucumber, chilli and guava, how many plants have superior ovary?

A. Three

B. Five

C. Seven

D. Four

Answer: C

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36. Read the following statements w.r.t. Pericycle and choose the suitable option

(a) It is the outermost portion of stele, that may be parenchymatous or sclerenchymatous.

(b) It is present in monocot stems.

(c) It is always single layered.

A. Only (a) is correct

B. Only (b) Is Incorrect

C. Only (c) is incorrect

D. Both (a) & (b) are incorrect

Answer: D

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37. Lateral roots

A. Develop from pericycle

B. Are endogenous in origin

C. Are formed by dicots only

D. Both (a) & (b)

Answer: B

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38. In monocot stem

(a) Vascular bundles are scattered.

(b) Hypodermis is sclerenchymatous.

(c) Endodermis is well developed.

(d) Stele is atactostele.

A. Only (a) & (b) are correct

B. Only (c) & (d) are correct

C. Only (c) is incorrect

D. All (a), (b), (c) & (d) are correct

Answer: D

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39. Caryopsis type of fruit occurs in

A. Triticum aestivum

B. Allium cepa

C. Trifolium

D. Solanum melongena

Answer: C

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40. In seed perisperm is

A. Modified integument

B. Consumed nucellus after fertilization

C. Persistent nucellus

D. Modified endosperm

Answer: A

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41. Which is incorrect about compound leaf?

A. Lamina is completely broken into distinct leaflets

B. Incision of lamina reaches upto the midrib

C. Midrib forms a common axis called rachis

D. It contains bud at the axil of leaflets

Answer: D

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42. What is true about cork cambium?

A. It is extrastelar cambium in dicot stem

B. In dicot roots it arises from the cells of cortex region

C. It is also known as phellogen

D. Both (a) & (c)

Answer: C

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43. Select the incorrect statement w.r.t. meristem

A. It is a group of immature cells

B. It is the area of active cell division in a plant

C. It is responsible for the formation of primary plant body

D. Lateral meristems occur in all plants

Answer: C

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44. Serum is

A. Plasma - formed elements

B. Blood - formed elements

C. Plasma - clotting factors

D. Blood - fibrinogen

Answer: B

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45. Read the following statements and select the correct option stating which one is true (T) and which one is false (F).

A. ABO grouping is based on the presence or absence of two surface antigens on leucocytes.

B. During first pregnancy there is least chance of occurrence of erythroblastosis fetalis due to Rh incompatibility

C. During blood clotting, conversion of fibrinogen to fibrin occurs by action of enzyme thrombokinase

D. All chordates possess chambered, muscular dorsal heart to pump blood throughout the body

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

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

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

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

Answer: A

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46. Most toxic nitrogenous waste product among following is

A. Ammonia

B. Urea

C. Uric acid

D. Amino acids

Answer: C

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47. Plasma proteins which protect our body from pathogens are

A. Albumins

B. Globulins

C. Fibrinogen

D. Heparin

Answer: C

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48. Even under the influence of ADH. maximum reabsorption of water occurs in which of the following segments of a nephron?

A. Distal convoluted tubule

B. Collecting duct

C. Loop of Henle

D. Proximal convoluted tubule

Answer: C

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49. Read the following statements and select the correct option A. Damage to chordae tendinae of semilunar valves in aorta causes back flow of blood in left ventricle.B. Closure of atrio-ventricular valves during ventricular systole generates first heart sound,

A. Both statements are correct

B. Only statement A is correct

C. Only statement B is correct

D. Both statements are incorrect

Answer: D

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50. Select the correct match between different formed elements of blood and their respective features in man

A. 

B. 

C. 

D. 

Answer: B

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51. Extensions of cortex in between renal medullary pyramids are known as

A. Columns of Bertini

B. Ducts of Bellini

C. Collecting ducts

D. Juxta glomerular apparatus

Answer: D

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52. All of the following statements are correct, expect

A. RCBs of human are not capable of metabolising glucose to carbon dioxide aerobically

B. No mixing of blood occurs in heart of a fish

C. With increase in heart rate, duration of a single cardiac cycle decreases

D. Pacemaker of human heart is a specialised neural tissue which maintains rhythmic activity of heart

Answer: D

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53. Ram's blood cells do not agglutinate with addition of either anti-A or anti-B serum. However, serum collected from Ram causes agglutination of RCBs collected from another person.

Based on the above information, blood group of Ram is most likely.

A. A

B. B

C. O

D. AB

Answer: C

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54. Select the incorrect statement in following given options in relation to human kidney.

A. Glomerular filtrate is isotonic in comparision to blood plasma

B. Due to maximum absorption in PCT filtrate becomes hypertonic

C. Active secretion of $H^+ \& K^+$ ions takes place in DCT

D. Some amount of urea passes from collecting duct to medullary interstitium and enters ascending limb of loop of Henle

Answer: C

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55. Find the odd one among the following substances which promote or are involved in coagulation of blood.

A. Thrombin

B. Heparin

C. Ca^{2+}

D. Thrombokinase

Answer: B

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56. How many among the given statements are incorrect?

a. All of the nodal tissue in human heart is capable of generating 70-75 action protentials in a minute.

b. Lymph is devoid of all formed elements of blood.

c. Cardiac output is defined as the volume of blood pumped by each ventricle in a cardiac cycle.

d. Wall of left ventricle is thickest among all four chambers of human heart.

A. Four

B. Three

C. Two

D. One

Answer: A

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57. Which of the following is not considered as component of tubular parts of nephron?

A. PCT

B. DCT

C. Glomerulus

D. Loop of Henle

Answer: B

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58. Read the following statements and select the correct option.

Statement-I : Erythroblastosis foetalis occurs between Rh+ve mother and Rh-ve foetus after first pregnancy.

Statement-II : Erythroblastosis feotalis can be avoided by administering Rh antigens to mother immediately after delivery of first child in all cases.

A. Both statements are correct

B. Only Statement-II is correct

C. Only statement-I is correct

D. Both statements are incorrect

Answer: C

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59. Read the following statements regarding various steps of urine formation.

A. Blood flows through glomerular capillaries under a pressure created due to difference in diameter of afferent and efferent arterioles.

B. Filtrate formed after ultrafiltration is isotonic to blood plasma.

C. Reabsorption of glucose occurs throughout the tubules of nephron.

D.Selective tubular secretion of H and K ions help in

maintaining ionic balance of body.

Select the option having only correct statements

A. A and C

B. B , C and D

C. A , B and D

D. C and D

Answer: B

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60. Find the odd one among the following taxa w.r.t presence of double circulation.

A. Pisces

B. Aves

C. Reptiles

D. Mammalia

Answer: B

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61. Given the folloeing values, calculate the net filtration pressure and select the correct option

GHP = 60 mm Hg, BCOP = 30 mm Hg , CHP = 20 mm Hg.

A. 70 mm Hg

B. 50 mm Hg

C. 10 mm Hg

D. 110 mm Hg

Answer: C

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62. Which of the following remains unchanged during strenous exercise?

A. Stroke volume

B. Heart rate

C. Number of action potentials generated by pacemaker

D. Sequence of events in a cardiac cycle

Answer: B

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63. Mark the incorrect statement w.r.t ECG

A. It is recorded with the help of electrocardiograph

B. While recording a standard ECG, Einthoven's triangle is created by placing electrical leads on both wrists and on left angle

C. T-wave represents the and of joint diastole

D. By counting the number of QRS complexes one can determine the heart rate of an individual

Answer: C

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64. When damage of kidney causes accumulation of urea in blood, the condition is known as

A. Uremia

B. Polyuria

C. Cystinuria

D. Hematuria

Answer: C

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65. Heart disorder in which cardiac muscles are suddenly damaged by inadequate supply of blood is

A. Heart failure

B. Cardiac arrest

C. Heart attack

D. Atherosclerosis

Answer: B

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66. Which of the following statement is incorrect?

A. The amount of blood pumped each minute by heart often can be increased by more than 100% due to parasympathesis stimulation

B. Lumen of arteries is narrower as compared to veins due to presence of thicker smooth muscle layer

C. Cardiovascular centre is located in medulla oblongata of brain

D. Waves indicating repolarisation of atria are not represented in a standard ECG

Answer: C

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67. Which of the following animals are not uricotelic?

A. Reptiles and birds

B. Birds and land snails

C. Land snails and terrestrial insects

D. Aquatic insects and marine fishes

Answer: B

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68. In order for the blood to flow right atrium to left ventricle in mammalian heart, it must flow through

A. Right ventricle $\rightarrow$ Pulmonary vein $\rightarrow$ Lungs $\rightarrow$ Pulmonary artery

B. Right ventricle $\rightarrow$ Pulmonary artery $\rightarrow$ Lungs $\rightarrow$ Pulmonary vein

C. Right ventricle $\rightarrow$ Pulmonary trunk $\rightarrow$ Lungs $\rightarrow$ Aorta

D. Right ventricle $\rightarrow$ Aorta $\rightarrow$ Lungs $\rightarrow$ Pulmonary trunk

Answer: D

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69. Which of the following is not associated with micturition reflex?

A. Relaxation of urethral sphincter

B. Contraction of detrusor muscle

C. Activation of stretch receptors in wall of ureters

D. Neural mechanism govern micturition reflex

Answer: C

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70. Erythropoiesis in human adults occurs in

A. Bone marrow

B. Kidney

C. Liver

D. Spleen

Answer: A

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71. Stimulation from sympathetic nervous system to heart causes decrease in

A. Cardiac output

B. Duration of cardiac cycle

C. Stroke volume

D. Heart rate

Answer: D

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72. How many double circulations are normally completed by the human heart in one minute

A. Eight

B. Sixteen

C. Seventy two

D. Thirty six

Answer: B

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73. Mark the incorrect statement w.rt counter current mechanism.

A. Osmolarity of filtrate increases while moving down the descending limb of loop of Henle

B. There will be no urine formation if loop of Henle is absent in mammalian nephrons

C. NaCl and urea maintain the osmolarity gradient in medulla

D. Osmolarity of fluid moving out from the collecting duct is four times that of plasma

Answer: C

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74. Duration between first and second heart sound is nearly equal to duration of

A. Atrial systole

B. Atrial diastole

C. ventricular systole

D. ventricular diastole

Answer: C

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75. The end of T-wave marks the end of

A. ventricular diastole

B. ventricular systole

C. Auricular systole

D. Auricular diastole

Answer: D

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76. Blood vessels carrying least and maximum amount of urea are & respectively.

Choose the option that fills the blanks correctly.

A. Renal vein and Hepatic vein

B. Hepatic vein and renal vein

C. Renal artery and hepatic portal vein

D. Hepatic vein and renal artery

Answer: B

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77. which of the following cannot be considered as a difference between conical and juxtamedullary nephrons?

A. Their number

B. Length of loop of Henle

C. Presence of vasa recta

D. Presence of peritubular capillaries

Answer: D

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78. Mark the feature/function which is not associated with bundle of His?

A. Carry cardiac impulses from AV node to ventricles

B. Modified muscle fibres, exhibits autoexcitability

C. It is bundle of neurons affecting heart rate

D. Helps to spread impulses in ventricular musculature

Answer: B

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79. Identify the correct statement regarding lymphatic system.

A. Lymphatic vessels have valves to prevent backflow of blood

B. Left and right subclavian veins drain lymph into inferior vena cava

C. Right lymphatic duct collects lymph from most of the parts of gastrointestinal tract

D. Lymphatic vessels return lost plasma protein in blood stream

Answer: D

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80. The type of portal system absent in humans is

a. Renal

b. Hepatic

c. Hypophyseal

A. a & b

B. b & c

C. a

D. c

Answer: D

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81. Renin is released from JGA in response to

A. High glomerular blood pressure

B. Fall in glomerular blood flow

C. High GFR

D. Decrease in osmolarity

Answer: B

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82. Point of difference beteen artery and vein excludes

A. Nature of muscle in tunica media

B. Diameter of lumen of blood vessels

C. Presence and absence of valves

D. Thickness of tunica media

Answer: A

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83. Select the correct statement w.r.t cardiac cycle.

A. Increase in atrial pressure causes the closure of atrioventricular valves

B. Upon receiving stimulation from SA node, atria and ventricles contract simultaneously

C. Major filling of ventricles occurs during atrial systole

D. Fall in ventricular pressure during ventricular diastole causes closure of semilunar valves

Answer: D

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84. Artificial pacemaker is required during treatment of

A. CAD

B. Myocardial infarction

C. Cardiac arrhythmia

D. Angina pectoris

Answer: C

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85. The correct route through which pulse-making impulse travels in the heart is

A. SA node $\rightarrow$ Purkinje fibres $\rightarrow$ Bundle of his $\rightarrow$ AV node

B. SA node $\rightarrow$ AV node $\rightarrow$ Bundle of his $\rightarrow$ Purkinje fibres

C. SA node $\rightarrow$ AV node $\rightarrow$ Purkinje fibres $\rightarrow$ Bundle of his

D. SA node $\rightarrow$ Bundle of his $\rightarrow$ AV node $\rightarrow$ Purkinje fibres

Answer: C

86. Angiotensin-II is responsible for all of the following except

A. Vasoconstriction

B. Increase in blood pressure

C. Release of mineralocorticoids

D. Decreased reabsorption of Na^+ from renal tubules

Answer: D

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87. Which greenhouse gas from the following has highest contribution to the total global warming ?

A. CO_2

B. CH_4

C. CFCs

D. N_2O

Answer:

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88. Biodiversity Hotspots

A. how low degree of endemism

B. were intially twenty five in number

C. can be exemplified by Khasi and Jaintia hills in Madhya Pradesh

D. are ex-situ conservation strategies for organisms

Answer:

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89. Ecosystem which can have both spindle shaped or inverted pyramid of number is

A. pond ecosystem

B. tree ecosystem

C. grassland ecosystem

D. desert ecosystem

Answer:

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90. Phosphorus cycle differs from carbon cycle as the former

A. has volcanic activity as the additional source

B. does not have role of decomposition bacteria in mineral recycling

C. has much smaller in ports through rainfall

D. is significantly affected by deforestation and burning of fossil fuels

Answer:

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91. A population of organism growing in a habitat with limited resources

A. shows exponential growth

B. does not show any competition between individuals

C. shoes asymptote when population density reaches carrying capacity

D. is described by equation $N_t=N_0e^{(er)}$

Answer:

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92. Ophrys employs 'sexual deceit' to get pollinated by a species of bee. This interaction is considered as

A. competition

B. mutualism

C. commensalism

D. parasitism

Answer:

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93. During sewage treatment, methanogens are used in

A. primary treatment

B. tertiary treatment

C. aeration tanks

D. anaerobic sludge digesters

Answer:

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94. In tissue culture capacity to generate a whole plant from any cell/explant is called

A. biofortification

B. totipotency

C. regeneration

D. micropropagation

Answer:

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95. Which of the following is incorrect regarding DNA fingerprinting ?

A. it is based on the use of Satellite DNA with high degree of polymorphism called VNTR

B. sensitivity of this technique is increased by use of PCR

C. in this process, characteristic pattern of DNA band differs from individual to individual even for monozygotic twins

D. it has application in forensic science

Answer:

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96. The DNA extraction was done from an E. Coli culture, 60 min after its transfer from 15_N to 14_N medium. What will be the fraction of hybrid DNA in the total extracted DNA ?

A. $\frac{1}{4}$

B. $\frac{1}{8}$

C. $\frac{1}{2}$

D. $\frac{1}{16}$

Answer:

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97. Match the columns and select the correct option column-I a. Kornberg enzyme b. DNA ligase c. Snurps d. Peptidyl transferase column-II (i) removal of introns (ii) ribozyme (iii) joining of okazaki fragments (iv) removal of RNA primers

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

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

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

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

Answer:

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98. In which of the following mendelian crosses both dominant and recessive phenotypes will be observed in the progeny?

A. AABB × aabb

B. AaBb × aabb

C. AaBb × AABB

D. aabb × aabb

Answer:

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99. An individual suffering from a particular genetic disorder, has (a) short stature (b) rudimentary ovaries (c) underdeveloped feminine characters what will be the chromosome complement of such individual ?

A. 45 + XY

B. 44 + XO

C. 45 + XX

D. 44 + XXY

Answer:

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100. Read the following statements, state true (T) or false (F) for them and select the correct option.

(a) Cleistogamous flowers prevent geitonogamy as well as xenogamy. (b) Double fertilisation occurs in all spermatophytes. (c) In pea family, the single cotyledon is

called scutellum. (d) Seeds of castor and coconut retain a part of endosperm during embryo development.

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

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

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

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

Answer:

Watch Video Solution

101. Egg apparatus of embryo sac

A. Is 7 celled and 8 nucleated

B. contains diploid cells

C. consists of 2 synergids and an egg cell

D. Is formed by mitosis in microspores

Answer:

Watch Video Solution

102. pollen grains

A. Are independent, photosythetic gametophytes of angiosperms

B. Are shed at 3 - celled stage in most flowering plants

C. Lose viability in 30 minutes always

D. of carrot grass may cause allergies and bronchial afflictions

Answer:

Watch Video Solution

103. Organisms showing internal fertilisation

A. Are majority of algae, fishes and amphibians

B. Have syngamy inside the female body

C. produce motile male gametes always

D. produce equal number of male and female gametes

Answer:

Watch Video Solution

104. A perennial monocarpic plant is

A. Marigold

B. Neelakuranji

C. wheat

D. Mango

Answer:

Watch Video Solution

105. Select the mismatches pair

A. Cytokinins - Delay in senescence

B. Auxins - prevention of abdcission

C. Gibberellins - internode elongation

D. ABA - breaking of seed dormancy

Answer:

Watch Video Solution

106. Total number of ATP produced through ETS only from one molecule of 3-phosphoglycerate in aerobic respiration is

A. 12 ATP

B. 16 ATP

C. 15 ATP

D. 14 ATP

Answer:

Watch Video Solution

107. select the correct set of decarboxylation steps, occuring inside the mitochondria during aerobic respiration.

(a) formation of acetyl CoA from pyruvic acid (b) formation of fumaric acid from succinic acid (c) formation of alpha- ketoglutaric acid from oxalosuccinic acid (d) formation of succinyl CoA from alpha - ketoglutaric acid

A. (a) and (b) only

B. (a) and (c) only

C. (a),(c) and (d) only

D. (c) and (d) only

Answer:

Watch Video Solution

108. Alcoholic fermentation is similar to lactic acid fermentation in

A. having complete oxidation of glucose

B. producing equal number of ATP and NADPH

C. exhibiting activity of dehydrogenase enzyme

D. producing CO_2as by - product

Answer:

Watch Video Solution

109. select the odd one w.r.t plants having spatial Separation of two sequential carboxylation events.

A. sorghum

B. maize

C. pineapple

D. sugarcane

Answer:

Watch Video Solution

110. plamts with kranz anatomy do not have/show

A. double carboxylation

B. calvin cycle

C. 4C acids in their mesophyll cells

D. oxygenase activity of RuBisCO

Answer:

Watch Video Solution

111. which of the following statement is incorrect w.r.t non- cyclic photosphorylation ?

A. it takes place under optimum light

B. it is associated with evolution of oxygen

C. both ATP and NADPH are the product of this process

D. it takes place only in stroma lemellae of chloroplasts

Answer:

Watch Video Solution

112. match the following column and select the correct option

a. potassium (column I) b. manganese (column I) c. calcium (column I) d. molybdenum (column I). (i) component of nitrogenase (column II) (ii). activation of

alpha- amyalse (column II) (iii). splitting of water (column II) (iv). maintains turgidity of cells (column II)

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

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

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

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

Answer:

Watch Video Solution

113. Rod-shaped bacteria, Rhizobium cannot be present on the root nodulea of

A. Alfalfa

B. Alnus

C. Sweet clover

D. Lentils

Answer:

Watch Video Solution

114. The positive pressure which is responsible for pushing up water to small heights is

A. known as transpiration pull

B. Responsible for guttation in herbaceous plants

C. Highest during day time

D. Also the reason behind loss of most absorbed water through stomata of leaves

Answer:

Watch Video Solution

115. Solute potential of a solution

A. Is always positive

B. Increases with increase in amount of solutes

C. Is numerically equal to osmatic pressure

D. Is zero for a solution at atmospheric pressure

Answer:

Watch Video Solution

116. Living mechanical tissue is

A. parenchyma

B. sclerenchyma

C. Xylem

D. collenchyma

Answer:

Watch Video Solution

117. In which stage of prophase -I, dissolution of synaptonemal complex occurs?

A. pachytene

B. Diplotene

C. Zygotene

D. Diakinesis

Answer:

Watch Video Solution

118. If a meiocyte of a diploid organism on G, phase has 20 chromosomes and 40 pg DNA then what will be the

number of chromosomes (a) and amount of DNA (b) in each cell after completion of meiosis-I?

A. (a)-20 (b)-40pg

B. (a)-10 (b)-20pg

C. (a)-10 (b)-40pg

D. (a)-20 (b)-80pg

Answer:

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119. Read the following statements and select the correct option. Statement A: Polar molecules can move across the membrane by the process of simple diffusion

along the concentration gradient. Statement B: The nuclear matrix or nucleoplasm contains nucleolus and chromatin.

A. Only statement A is correct

B. Only statement B is correct

C. Both statement A and B are correct

D. Both statement A and B are incorrect

Answer:

Watch Video Solution

120. A prokaryotic cell does not have

A. Ribosomes

B. Microtubules in flagella

C. Circular genomic DNA

D. Inclusion bodies

Answer:

Watch Video Solution

121. In dicot stems

A. Vascular cambiumis completely secondary in origin

B. Ground tissue is not well differentiated

C. Hypodermis is either sclerenchymatous or absent

D. Vascular bundles are of endarch and open type

Answer:

Watch Video Solution

122. How many of the following features are associated with pea? (a) Basal placentation (b) non-endospermous seed (c) leaf sendrilis (d) Moncadalphous stamens (e)papllionaceous corolla (f) Actinomorphic flowers

A. Two

B. Three

C. Five

D. Six

Answer:

Watch Video Solution

123. Select the correctly matched pair

A. Mango-stony mesocarp

B. euphorbia - flattened phylioclade

C. Mustard - Cymose inflorescence

D. Alstonia - Whorled phylotaxy

Answer:

Watch Video Solution

124. A feature, common between 'amphibians of plant kingdom ' and 'vascular cryptogams' is

A. Presence of independent and photosynthetic gametophyte

B. Occurrence of haptantic life cycle and zygotic melosis

C. presence of true root, stem and leaves in main plant body

D. formation of non-mobile male and female gametes

Answer:

Watch Video Solution

125. Which of the following algae is used to obtain agar?

A. Porphyra

B. Laminaris

C. Gelidium

D. Sargassum

Answer:

Watch Video Solution

126. Select the correct set of statements for the virus first crystallized by Stanley.

(a) It has either single or double standard DNA as its genetic material

(b) Subunits of their protein cost are arranged helically

(c) It is an obligate plant parasite.

(d) First discovered by M.W. Beijerinck

A. only (b) and (c)

B. only (a) and (b)

C. All except (d)

D. All (a),(b),© and (d)

Answer:

Watch Video Solution

127. Sac fungi differ from imperfect fungi in having

A. Septate and branched mybelum

B. Disaryophase

C. Chitinous cell wall

D. Conidia as asexual spores

Answer:

Watch Video Solution

128. The smallest bacteria

A. Have cellulosic cell wall

B. Have photosynthetic pigments similar to green plants

C. Can survive without oxygen

D. Are sensitive to penicilin

Answer:

Watch Video Solution

129. The taxonomic aid that serves as quick referral system in taxonomical studies

A. is ex-situ conservation statergy of plants

B. has collections of skeletons of animals

C. has plant specimens that are dried, pressed and preserved on sheets

D. keeps wild animals in protected environments under human care

Answer:

Watch Video Solution

130. Scientific name of mango is correctly written as

A. Mangifera indica

B. mangifera indica

C. Mangifera indica

D. Mangifera indica

Answer:

Watch Video Solution

131. Select the correct statement.

A. GM plants exhibit reduced reliance on chemical pesticides

B. Bt protoxin upon ingestion by an insect gets converted into an insective form

C. Bt toxin is coded by a gene named cry

D. RNAI takesplace in all eukaryotic organisms as a method of cellular defense

Answer:

Watch Video Solution

132. Select the mismatch.

A. Flavr Savr - Transgenic potato

B. Gene therapy - ADA

C. Tracy - α -1 anstrypsin

D. Humulin - E.coli

Answer:

Watch Video Solution

133. Read the following statements. Statement A: In agarose gel electrophoresis, the smaller the fragment size of DNA , the farther it moves from the wall. Statement B: Separation of proteins in normal electrophoresis is based on both size and charge. Choose the correct option.

A. Both statements are correct

B. statement B is correct and A is incorrect

C. Statement B is incorrect

D. Statement A is incorrect

Answer:

Watch Video Solution

134. EcoRi is a restriction endonuclease, derived from

A. Entamoeba hisfolytica

B. Entamoeba coli

C. Escerichia coli

D. Enterobius vermicularis

Answer:

Watch Video Solution

135. _____ is a thermophilic bacterium that can survive temperature upto 95◦C. Select the option which fills the blank correctly

A. Thermus aquatious

B. Salmoneila typhl

C. E.coli

D. Lactobacilus

Answer:

Watch Video Solution

136. Exotic breed of poultry is

A. Jersey

B. Leghorn

C. Mule

D. Hisardale

Answer:

Watch Video Solution

137. Incorrect statement regarding AIDS is

A. Macrophage acts like an HIV factory

B. there is always a time lag between the infection by HIV and Appearance of symptoms of AIDS

C. Caused by nonenvalopedsetrovirus

D. The attachment of virus to CD_4receptor site is by the help of GP-120 on the lipid brayer of viru

Answer:

Watch Video Solution

138. Select the odd one w.r.t. ringworms

A. Microsponum

B. Epidermophyton

C. Salmonella

D. Trichophyton

Answer:

Watch Video Solution

139. Cocaine is obtained from the extract of

A. Cannabi's sative

B. Atropa beliadone

C. Erythroxylum coca

D. Papaver somniferum

Answer:

Watch Video Solution

140. Select the incorrect match w.r.t. placental mammals and Australian marsupials.

A. Lemur :Spotted cuscus

B. Bobcat: Tasmarian tiger

C. Anteatar : Numbat

D. Koala : Flying squirrel

Answer:

Watch Video Solution

141. According to the Hardy- Weinberg principle, the frequency of homozygous recessive (aa) indivituals in a population is denoted by

A. p^2

B. 2pq

C. q^2

D. p+q

Answer:

Watch Video Solution

142. Match column I and column II w.r.t. cranial capacity (a)Homo erectus (Column I) (i) 650-800 cc (Column II) (b) Homosapians (Column I) (ii)1650 cc (Column II) (c) Cro-magnon (Column I) (iii) 1400 cc (Column II) (d) Homo habitats (Column I) (iv) 900 cc (Column II) .Choose the correct option

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

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

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

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

Answer:

Watch Video Solution

143. Failure in male partner to achieve erection is called

A. Sterility

B. Castration

C. Impotency

D. Cryptorchidism

Answer:

Watch Video Solution

144. Identify the STI (Sexually Transmitted Infection) caused due to a protozoan.

A. Trichomoriasis

B. Gonorrhoea

C. Chancroid

D. Syphilis

Answer:

Watch Video Solution

145. Male reproductive system does not comprise of

A. Prostate gland and cowper's glands

B. Bulbourethal glands and seminal vesicles.

C. Seminal vesicles and urinogenital duct

D. Bartholin's gland and paraurethral gland

Answer:

Watch Video Solution

146. During oogenesis. Meiosis I in a female is completed in _____ within _____ respectively.

A. Secondary oocyte, tertiary follicle

B. Primary oocyte, tertiary follicle

C. primary oocyte, graffian follicle

D. secondary oocyte, graffian follicle

Answer:

Watch Video Solution

147. Read the given statements.

Statement A: Umbilical cord carries only foetal blood.

Statement B: Structure which connects foetus to placenta is umbilical cord. Choose the correct option.

A. Both statements are correct

B. Statement A is incorrect

C. Only statement B is correct

D. Both statements are correct.

Answer:

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148. In human beings and fruit fly chromosome number in meiocytes are respectively

A. 23,4

B. 46,8

C. 12,46

D. 8,23

Answer:

Watch Video Solution

149. Disease not related with hypersecretion of hormone from adrenal cortex is

A. Adrenal virilism

B. Conn's syndrome

C. Cushing's syndrome

D. Addison's disease

Answer:

Watch Video Solution

150. Membrane bound receptors are required for action by

A. Cortisol

B. Testosterone

C. Epinephrine

D. Progesterone

Answer:

Watch Video Solution

151. Read the following statements

(Statement A: Endocrine glands are ductless amd release their secretion into the venous blood,

Statement B: Endocrine system is slower than nervous

system in terms of coordination and regulation) Choose the correct option

A. Both statements are correct

B. Both statements are incorrect

C. Statement A is incorrect but B is correct

D. Statement B is incorrect

Answer:

Watch Video Solution

152. Choose the incorrect match

A. Blind Spot - Area on the sclera at which photoreceptor cells are absent

B. Aqueous chamber - Space between the cornea and the lens

C. Choroid - Highly vascular layer that appears bluish in colour

D. Retina - Consists of photopigment cells and neurons

Answer:

Watch Video Solution

153. Sympathetic nervous system does not inhibit secretion of

A. Gastric juice

B. Saliva

C. Pancreatic juice

D. Sweat gland

Answer:

Watch Video Solution

154. Lateral ventricles of human brain are connected to third ventricle by ____ and third ventricle is connected

with fourth ventricle by ____ respectively.Select the option which fill the blanks correctly.

A. Foramen of Monro and Iter

B. Foramen of Luschka and Foramen of Monro

C. Foramen of Magendie and Foramen of Magnum

D. Iter and Foramen of Monro

Answer:

Watch Video Solution

155. Among the following which bone is not a part of pelvic girdle?

A. Ilium

B. Clavicle

C. Pubis

D. Ischium

Answer:

Watch Video Solution

156. Choose the incorrect statement w.r.t cardiac muscle fibers.

A. Show autorhythmic contractions

B. Uninucleated non-striated muscle fibers

C. Innervated by autonomic nervous system

D. Intercalated discs are present

Answer:

Watch Video Solution

157. Select the closest relative of man among following

A. Gibbon

B. Orangutan

C. Gorilla

D. Chimpanzee

Answer:

Watch Video Solution

158. Flagellar movement is seen generally in

A. Spermatozoa

B. Amoeba

C. Kupffer cells

D. Leucocytes

Answer:

Watch Video Solution

159. Which one is not in contact with juxtaglomerular apparatus?

A. PCT

B. DCT

C. Afferent arteriole

D. Efferent arteriole

Answer:

Watch Video Solution

160. Formation of angiotensin-II results in all except

A. Vasoconstriction leading to increase in blood pressure

B. Increased reabsorption of NaCl

C. Decrease in diameter of efferent arteriole

D. Decrease in GFR

Answer:

Watch Video Solution

161. Which of the following option gives the correct categorisation according to the type of nitrogenous waste they excrete out?

A. (Uricotelic - Marine fishes),(Ammonotelic - Land sails),(Ureotelic - Insects)

B. (Uricotelic - Aquatic amphibians),(Ammonotelic - Reptiles),(Ureotelic - Birds)

C. (Uricotelic - Forg),(Ammonotelic - Cockroach), (Ureotelic - Pheretima)

D. (Uricotelic - Land snails),(Ammonotelic - Aquatic insects),(Ureotelic - Many terristial amphibians)

Answer:

Watch Video Solution

162. The end of T-wave in standard ECG of a normal person represents

A. Contraction of both the atria

B. End of ventricular systole

C. Beginning of the ventricular systole

D. Initiation of the atrial contraction

Answer:

Watch Video Solution

163. The state of heart when it is not pumping blood effectively enough to meet the needs of the body is

: —

A. Angina Pectoris

B. Heart Failure

C. Heart Attack

D. Cardiac Arrest

Answer:

Watch Video Solution

164. Choose the odd one w.r.t heart should dub.

A. High pitched

B. Short duration

C. Closure of AV valves during ventricular systole

D. Closure of semilunar valves at the beginning of ventricular diastole

Answer:

Watch Video Solution

165. Condition not responsible for shifting the oxygen dissociation curve towards left side is

A. Low temperature

B. Low partial pressure of CO_2

C. High partial pressure of O_2

D. Decrease in pH

Answer:

Watch Video Solution

166. In humans,route passage of air from lungs to atmosphere is

A. Alveoli rarr Bronchiloes rarr Bronchi rarr Trachea rarr Larynx rarr Pharynx rarr Nasal cavity

B. Alveoli rarr Bronchi rarr Bronchioles rarr Trachea rarr Pharynx rarr Larynx rarr Nasal cavity

C. Alveoli rarr Bronchiloes rarr Bronchi rarr Trachea rarr Pharynx rarr Larynx rarr Nasal cavity

D. Alveoli rarr Bronchi rarr Bronchioles rarr Trachea rarr Larynx rarr Pharynx rarr Nasal cavity

Answer:

Watch Video Solution

167. Deficiency of which of the following vitamin causes megaloblastic anemia?

A. Panthothenic acid

B. Nicotinic acid

C. Ascorbic acid

D. Folic acid

Answer:

Watch Video Solution

168. A person eats 10gm of butter,10gm of pulses and 50gm of rice.The person also eats 5gm of spinach along with 100ml water.Gross calorific value of food consumed by the person is

A. 380 kcal

B. 330 kcal

C. 356 kcal

D. 500 kcal

Answer:

Watch Video Solution

169. Heart of cockroach consists of elongated muscular tube lying along-

A. Mid dorsal

B. Mid ventral

C. Lateral

D. Dorsolateral

Answer:

Watch Video Solution

170. Choose the incorrect statement w.r.t epithelial tissue.

A. The cells are compactly packed with little intracellular matrix

B. Simple squamous epithelium is made up of a single layer of flattened cells with irregular boundaries

C. Compound epithelium has a limited role in secretion and absorption

D. Columnar or cuboidal cells get specialised for secretion

Answer:

Watch Video Solution

171. Select the mismatch

A. Hemichordata - Saccoglossus

B. Urochordata - Doliolum

C. Cephalochordata - Branchiostoma

D. Cyclostomata - Pterophyllum

Answer:

Watch Video Solution

172. Choose the odd one w.r.t Chondrichthyes

A. Mouth located ventrally

B. Air bladder is present which regulates buoyancy

C. In males,pelvic fins bear claspers for copulation

D. Gill slits are separate and without operculum

Answer:

Watch Video Solution

173. Read the following statements.

(Statement A : Body molluscs is unsegmented with a distinct head, muscular foot and visceral hump.)

(Statement B : In mantle cavity of molluscs,lungs are responsible for respiration and excretion)

A. Statement A is correct

B. Statement B is correct

C. Statement B is correct explanation of A.

D. Both statements are correct

Answer:

Watch Video Solution

Watch Video Solution

174. Match Column I with Column II. (a) Physalia (Column I),(i) Devil fish (Column II),(b) Ascaris (Column I),(ii) King crab (Column II),(c) Limulus (Column I),(iii) Roundworm (Column II),(d) Octopus (Column I),(iv) Portuguese man of war (Column II)

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

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

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

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

Answer:

Watch Video Solution

Watch Video Solution

Exercise

1. In seed perisperm is

A. Modified integument

B. Consumed nucellus after fertilization

C. Persistent nucellus

D. Modified endosperm

Answer:

Watch Video Solution

2. Caryopsis type of fruit occurs in

A. Triticum aestivum

B. Allium cepa

C. Trifolium

D. Solanum melongena

Answer:

Watch Video Solution

3. In monocot stem

(a) Vascular bundles are scattered.

(b) Hypodermis is sclerenchymatous.

(c) Endodermis is well developed.

(d) Stele is atactostele.

A. Only (a) and (b) are correct

B. Only (c) and (d) are correct

C. Only (c) is incorrect

D. All (a). (b). (C) and (d) are correct

Answer:

Watch Video Solution

4. Lateral roots

A. Develop from pericycle

B. Aro endogonious in origin

C. Are formed by dicots only

D. Both (1) and (2)

Answer:

Watch Video Solution

5. In seed perisperm is

A. Modified integument

B. Consumed nucellus after fertilization

C. Persistent nucellus

D. Modified endosperm

Answer:

Watch Video Solution

6. Caryopsis type of fruit occurs in

A. Triticum aestivum

B. Allium cepa

C. Trifolium

D. Solanum melongena

Answer:

Watch Video Solution

7. Among china rose, mustard, Brinjal, potato, guava,cucumber onion and tulip, how many plants have superior ovary

A. Three

B. Five

C. Seven

D. Four

Answer:

Watch Video Solution

8. All the given statements w.r.t. flower are correct, expect

A. It is a modified shoot

B. It is a reproductive unit of angiosperms

C. It is trimerous in potato family

D. It is trimerous in potato family

Answer:

Watch Video Solution

9. The roots which arise from parts of the plant other than the radicle are called

A. Conical roots

B. Adventitious roots

C. Tap roots

D. Pneumatophores

Answer:

Watch Video Solution

10. Choose the mis-matched pair

A. Whorled phyllotaxy-Alstonia

B. Phyllode-Australian Acacia

C. Opposite phyllotaxy-Calotropis

D. Leaf tendril-Cucurbits

Answer:

Watch Video Solution

11. Which of the following is an incorrect difference between heartwood and sapwood?

A.

	Heartwood	Sapwood
(1)	Cannot conduct water	Involved in conduction of water
(2)	Darker in colour	Lighter in colour
(3)	Less durable & susceptible to attack of pathogens	Durable & resistant to attack of pathogens
(4)	Occupies large central region	Occupies peripheral region

B.

C.

D.

Answer:

Watch Video Solution

12. State true(T) or false(F) to the given statements and select the correct option.

(a) Annual rings are distinct in plants growing in temperate regions.

(b) Lenticels occur in most woody trees and permit the exchange of gases.

(c) Due to stelar secondary growth, central cylinder of wood surrounded by secondary phloem is formed.

(d) The cells of endodermis opposite to protoxylem divide to give rise vascular cambium in dicot roots.

A. 

B.

C.

D.

Answer:

Watch Video Solution

13. During secondary growth, amount of

(a) Heartwood increases

(b) Sapwood increases

(c) Sapwood decreases

(d) Sapwood remains almost constant.

Read the above statements and choose the option with correct statements.

A. Only (d)

B. (a) and (b)

C. (a) and (c)

D. (a) and (d)

Answer:

Watch Video Solution

14. In Cassia, symmetry of flower is

A. Radial

B. Bilateral

C. Asymmetric

D. Irregular

Answer:

Watch Video Solution

15. Cymose inflorescence is not found in

A. Dianthus

B. Solanum

C. Triticum

D. Begonia

Answer:

Watch Video Solution

16. Identify the wrongly matched pair

A. Betel nut - One seeded berry

B. Bittor taste of some pepo fruits-Triphenyl tetrazolium chloride

C. Pome fruit-Pseudocarp

D. Syconus fruit-Develops from hypanthodium inflorescence

Answer:

Watch Video Solution

17. Replum is :-

A. Pseudoseptum

B. True septum

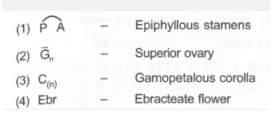
C. Feature of family Brassicaceae

D. Both (1) and (3)

Answer:

Watch Video Solution

18. Select the mis-matched pair

A. 

B.

C.

D.

Answer:

Watch Video Solution

19. Read the following statements about dicot stem and choose the correct option

(a) Vascular bundles are arranged in a ring

(b) Vascular bundles are conjoint, collateral and open

type

(C) Endarch type of arrangement of secondary xylem

A. Only (b) is correct

B. Only (c) is incorrect

C. Both (a) and (b) are incorrect

D. All (a). (b) and (c) are correct

Answer:

Watch Video Solution

20. Root hairs are the

A. Unicellular and endogenous in origin

B. Multicellular and endogenous in origin

C. Unicellular and exogenous in origin

D. Multicellular and exogenous in origin

Answer:

Watch Video Solution

21. In grasses, guard cells of stomata are

A. Bean-shaped

B. Kidney-shaped

C. Sickle shaped

D. Dumb-bell shaped

Answer:

Watch Video Solution

22. Floral formula of family fabaceae is

A. 

B.

C.

D.

Answer:

Watch Video Solution

23. Which one is odd regarding endospermic seeds?

A. Orchid

B. Rice

C. Coconut

D. Wheat

Answer:

Watch Video Solution

24. In maize, the outer covering of endosperm separates the embryo by a protenous layer called

A. Coleoptile

B. Aleurone layer

C. Scutellum

D. Coleorhiza

Answer:

Watch Video Solution

25. What is incorrect for companion cell?

A. It is specialised parenchymatous cell

B. It helps in maintaining the pressure gradient in the sieve tubes

C. It does not retain nucleus throughout the life

D. It is absent in gymnosperms

Answer:

Watch Video Solution

26. Exarch type of arrangement of primary xylem is seen in

A. Root

B. Monocot stem

C. Leaf

D. Dicot stem

Answer:

Watch Video Solution

27. Select incorrect feature(s) from (a)-(d) regarding collenchyma tissue.

(a) Living mechanical tissue

(b) Absent in monocots

(c) May be photosynthetic

(d) Living non-mechanical tissue

A. Only (c)

B. Only (d)

C. Both (c) and (d)

D. Both (a) and (b)

Answer:

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28. Tricarpellary, syncarpous, trilocular, superior ovary with axile placentation is found in

A. Mustard family

B. Grass family

C. Lily family

D. Potato family

Answer:

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29. In litchi (Litchi chinensis), edible part is

A. Fleshy mesocarp

B. Aril

C. Succulent testa

D. Fleshy receptacle

Answer:

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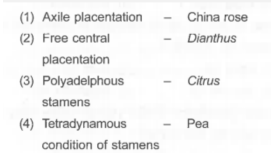
30. Choose the incorrect match

A. 

(1) Axile placentation	–	China rose
(2) Free central placentation	–	*Dianthus*
(3) Polyadelphous stamens	–	*Citrus*
(4) Tetradynamous condition of stamens	–	Pea

B.

C.

D.

Answer:

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31. Read the following statements and choose the correct option.

Statement 1 : Coconut fruit develops from

monocarpellary superior ovary and is one seeded.

Statement 2 : In drupe type of fruits, endocarp is stony.

A. Only statement 1 is corect

B. Only statement 2 is correct

C. Both statements are correct

D. Both statements are incorrect

Answer:

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32. State true(T) or false(F) to the given statements and select the correct option.

(a) All tissue layers exterior to the vascular cambium

constitute bark.

(b) Root podermis is sclerenchymatous.

(c) Ground tissue of leaves is called mesophyll.

(d) Due to presence of casparian strips, endodermis is impervious to water.

A. 

B.

C.

D.

Answer:

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33. The endodermis of dicot stem is also called :

A. Bundle sheath

B. Phellogen

C. Conjunctive tissue

D. Starch sheath

Answer:

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34. Supporting roots of maize stem, which arise from the lower nodes are called

A. Pneumatophores

B. Prop roots

C. Stilt roots

D. Contractile roots

Answer:

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35. In vexillary aestivation, keel represents

A. The largest posterior petal

B. Two smaller lateral petals

C. Two smallest anterior petals

D. The largest anterior petal

Answer:

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36. Pulvinus is

A. Swollen leaf base

B. Cylindrical stalk that joins the leaf base with lamina

C. Lateral small leaf like structure

D. Modified petiole

Answer:

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37. Which one is the incorrect match?

A. Phylloclade-Opuntia

B. Stem thom-Citrus

C. Rhizome-Potato

D. Corm-Zaminkand

Answer:

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38. Which of the following characters is/are related isobilateral leaf?

(a) Stomata are present on both surfaces.

(b) Mesophyll is differentiated into palisade and spongy parenchyma.

(c) Sub-stomatal cavity is present below the stoma of the abaxial epidermis.

A. Only (a)

B. Only (c)

C. Only (a) and (c)

D. (a), (b) and (c)

Answer:

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39. Lateral meristem may be

A. Primary in origin

B. Secondary in origin

C. Intercalary in position

D. Both (1) and (2)

Answer:

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40. The $C_{\widehat{(5)}}\, A_5$ condition is found in the floral formula or family

A. Liliaceae

B. Poaceae

C. Fabaceae

D. Solanaceae

Answer:

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41. Select the correct match

A. Sesbania-Fabaceae

B. Belladonna-Liliaceae

C. Aloe-Solanaceae

D. Asparagus-Brassicaceae

Answer:

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42. Angiotensin-1 is responsible for all of the following except

A. Vasoconstriction

B. Increase in blood pressure

C. Release of mineralocorticoids

D. Decreased reabsorption of Na from renal tubules

Answer:

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43. The correct route through which pulse-making impulse travels in the heart is

A. SA node $\rightarrow$ Purkinje fibres $\rightarrow$ Bundle of His $\rightarrow$ AV node

B. SA node $\rightarrow$ AV node $\rightarrow$ Bundle of His $\rightarrow$ Purkinje fibres

C. SA node $\rightarrow$ AV node $\rightarrow$ Purkinje fibres $\rightarrow$ Bundle of His

D. SA node $\rightarrow$ Bundle of His $\rightarrow$ AV node $\rightarrow$ Purkinje fibres

Answer:

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44. Artificial pacemaker is required during treatment of

A. CAD

B. Myocardial infarction

C. Cardiac arrhythmia

D. Angina pectoris

Answer:

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45. Which of the following cases of blood transfusion will not lead to clumping of RBCs?

A.

	Donor	Acceptor
(1)	A^+	O^+
(2)	B^+	B^-
(3)	O^+	B^+
(4)	AB^+	O^+

B.

C.

D.

Answer:

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46. Select the correct statement w.r.t cardiac cycle.

A. Increase in atrial pressure causes the closure of atrioventricular valves

B. Upon receiving stimulation from SA node, atria and ventricles contract simultaneously

C. Major filling of ventricles occurs during atrial systole

D. Fall in ventricular pressure during ventricular diastole causes closure of semilunar valves

Answer:

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47. Point of difference between artery and vein excludes

A. Nature of muscle in tunica media

B. Diameter of lumen of blood vessels

C. Presence and absence of valves

D. Thickness of tunica media

Answer:

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48. Renin is released from JGA in response to

A. High glomerular blood pressure

B. Fail in glomerular blood flow

C. High GFR

D. Decrease in osmolarity

Answer:

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49. The type of portal system absent in humans is

a. Renal

b. Hepatic

c. Hypophyseal

A. a & b

B. b&c

C. a

D. c

Answer:

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50. Identify the correct statement regarding lymphatic system.

A. Lymphatic vessels have valves to prevent backflow of blood

B. Left and right subclavian veins drain lymph into inferior vena cava

C. Right lymphatic duct collects lymph from most of the parts of gastrointestinal tract

D. Lymphatic vessels return lost plasma protein in blood stream

Answer:

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51. Mark the feature/function which is not associated with bundle of His?

A. Carry cardiac impulses from AV node to ventricles

B. Modified muscle fibres, exhibits autoexcitability

C. It is bundle of neurons affecting heart rate

D. Helps to spread Impulses in ventricular musculature

Answer:

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52. which of the following cannot be considered as a difference between conical and juxtamedullary nephrons?

A. Their number

B. Longth of loop of Henle

C. Presence of vasa recta

D. Presence of peritubular capillaries

Answer:

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53. Blood vessels carrying least and maximum amount of urea are & respectively.

Choose the option that fills the blanks correctly.

A. Ronal vein and Hepatic vein

B. Hepatic vein and renal vein

C. Renal artery and hepatic portal vein

D. Hepatic vein and renal artery

Answer:

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54. The end of T-wave marks the end of

A. Ventricular diastole

B. Ventricular systole

C. Auricular systole

D. Auricular diastole

Answer:

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55. Duration between first and second heart sound is nearly equal to duration of

A. Atrial systole

B. Atrial diastole

C. Ventricular systole

D. Ventricular diastole

Answer:

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56. Mark the incorrect statement w.rt counter current mechanism.

A. Osmolarity of filtrate increases while moving down the descending limb of loop of Henle

B. There will be no urine formation If loop of Henle is absent in mammalian nephrons

C. NaCl and urea maintain the osmolarity gradient in medulla

D. Osmolarity of fluid moving out from the collecting duct is four times that of plasma

Answer:

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57. How many double circulations are normally completed by the human heart in one minute

A. Eight

B. Sixteen

C. Seventy two

D. Thirty six

Answer:

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58. Stimulation from sympathetic nervous system to heart causes decrease in

A. Cardiac output

B. Duration of cardiac cycle

C. Stroke volume

D. Heart rate

Answer:

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59. Erythropoiesis in human adults occurs in

A. Bone marrow

B. Kidney

C. Liver

D. Spleen

Answer:

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60. Which of the following is not associated with micturition reflex?

A. Relaxation of urethral sphincter

B. Contraction of detrusor muscle

C. Activation of stretch receptors in wall of ureters

D. Neural mechanism govern micturition reflex

Answer:

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61. In order for the blood to flow right atrium to left ventricle in mammalian heart, it must flow through

A. Right ventricle $\rightarrow$ Pulmonary vein $\rightarrow$ Lungs $\rightarrow$ Pulmonary artery

B. Right ventncie $\rightarrow$ Pulmonary vein $\rightarrow$ Lungs $\rightarrow$ Pulmonary artery

C. Right ventricle $\rightarrow$ Pulmonary trunk $\rightarrow$ Lungs $\rightarrow$ Aorta

D. Right ventricle $\rightarrow$ Aorta $\rightarrow$ Lungs $\rightarrow$ Pulmonary trunk

Answer:

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62. Which of the following animals are not uricotelic?

A. Reptiles and birds

B. Ventricular systole

C. Land snails and terrestrial insects

D. Aquatic insects and marine fishes

Answer:

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63. Which of the following statement is Incorrect?

A. The amount of blood pumped each minute by heart often can be increased by more than 100% due to parasympathetic stimulation

B. Lumen of arteries is narrower as compared to veins due to presence of thicker smooth muscle layer

C. Cardiovascular centre is located in medulla oblongata of brain

D. Waves indicating repolarisation of atria are not represented in a standard ECG

Answer:

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64. Heart disorder in which cardiac muscles are suddenly damaged by inadequate supply of blood is

A. Heart failure

B. Cardiac arrest

C. Heart attack

D. Atherosclerosis

Answer:

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65. When damage of kidney causes accumulation of urea in blood, the condition is known as

A. Uremia

B. Polyuria

C. Cystinuria

D. Hematuria

Answer:

Watch Video Solution

66. Blood vessels through which systemic circulation begins from heart and terminates in heart are A andB

respectively.

A. 

B.

C.

D.

Answer:

Watch Video Solution

67. Mark the incorrect statement w.r.t ECG

A. It is recorded with the help of electrocardiograph

B. While recording a standard ECG Einthoven's triangle is created by placing electrical leads on both wrists and on left ankle

C. T-wave represents the end of joint diastole

D. By counting the number of QRS complexes one can determine the heart rate of an individual

Answer:

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68. Which of the following remains unchanged during strenous exercise?

A. Stroke volume

B. Heart rate

C. Number of action potentials generated by pacemaker

D. Sequence of events in a cardiac cycle

Answer:

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69. Given the folloeing values, calculate the net filtration pressure and select the correct option

GHP = 60 mm Hg, BCOP = 30 mm Hg , CHP = 20 mm Hg.

A. 70mm Hg

B. 50 mm Hg

C. 10 mm Hg

D. 110mm Hg

Answer:

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70. Find the odd one among the following taxa w.r.t presence of double circulation.

A. Pisces

B. Aves

C. Reptiles

D. Mammalia

Answer:

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71. Read the following statements regarding various steps of urine formation.

A. Blood flows through glomerular capillaries under a pressure created due to difference in diameter of afferent and efferent arterioles.

B. Filtrate formed after ultrafiltration is isotonic to blood plasma.

C. Reabsorption of glucose occurs throughout the tubules of nephron.

D.Selective tubular secretion of H and K ions help in maintaining ionic balance of body.

Select the option having only correct statements

A. A and C

B. B, C and D

C. A,B and D

D. C and D

Answer:

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72. Read the following statements and select the correct option.

Statement-I : Erythroblastosis foetalis occurs between Rh+ve mother and Rh-ve foetus after first pregnancy.

Statement-II : Erythroblastosis feotalis can be avoided by administering Rh antigens to mother immediately after delivery of first child in all cases.

A. Both statements are correct

B. Only statement-II is correct

C. Only statement-I is correct

D. Both statements are incorrect

Answer:

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73. Which of the following is not considered as component of tubular parts of nephron?

A. PCT

B. DCT

C. Glomerulus

D. Loop of Henle

Answer:

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74. How many among the given statements are incorrect?

a. All of the nodal tissue in human heart is capable of generating 70-75 action protentials in a minute.

b. Lymph is devoid of all formed elements of blood.

c. Cardiac output is defined as the volume of blood pumped by each ventricle in a cardiac cycle.

d. Wall of left ventricle is thickest among all four chambers of human heart.

A. Four

B. Three

C. Two

D. One

Answer:

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75. Find the odd one among the following substances which promote or are involved in coagulation of blood.

A. Thrombin

B. Heparin

C. Ca^{2+}

D. Thrombokinase

Answer:

Watch Video Solution

76. Select the incorrect statement in following given options in relation to human kidney.

A. Glomerular filtrate in isotonic in comparison to blood plasma

B. Due to maximum absorption in PCT filtrate becomes hypertonio

C. Active secretion of H^+ & K^+ lons takes place in DCT

D. Some amount of urea passes from collecting duct to medullary interstitium and enters ascending limb of loop of Henle

Answer:

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77. Ram's blood cells do not agglutinate with addition of either anti-A or anti-B serum. However, serum collected from Ram causes agglutination of RCBs collected from another person.

Based on the above information, blood group of Ram is most likely.

A. A

B. B

C. O

D. AB

Answer:

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78. All of the following statements are correct, except

A. RBCs of human are not capable of metabolising glucose to carbon dioxide aerobically

B. No mixing of blood occurs in heart of a fish

C. With increase in heart rate, duration of a single cardiac cycle decreases

D. Pacemaker of human heart is a specialised neural tissue which maintains rhythmic activity of heart

Answer:

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79. The extended region of cortex in between the medullary pyramids forms the

A. Columns of Bertini

B. Ducts of Bellini

C. Collecting ducts

D. Juxta glomerular apparatus

Answer:

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80. Read the following statements and select the correct option A. Damage to chordae tendinae of semilunar valves in aorta causes back flow of blood in left ventricle.B. Closure of atrio-ventricular valves during ventricular systole generates first heart sound,

A. Both statements are correct

B. Only statement A is correct

C. Only statement B is correct

D. Both statements are incorrect

Answer:

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81. Even under the influence of ADH. maximum reabsorption of water occurs in which of the following segments of a nephron?

A. Distal convoluted tubule

B. Collecting duct

C. Loop of Henle

D. Proximal convoluted tubule

Answer:

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82. Plasma proteins which protect our body from pathogens are

A. Albumins

B. Globulins

C. Fibrinogen

D. Heparin

Answer:

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83. Most toxic nitrogenous waste product among following is

A. Armonia

B. Urea

C. Uric acid

D. Amino acids

Answer:

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84. Read the following statements and select the correct option stating which one is true (T) and which one is

false (F).

A. ABO grouping is based on the presence or absence of two surface antigens on leucocytes.

B. During first pregnancy there is least chance of occurrence of erythroblastosis fetalis due to Rh incompatibility

C. During blood clotting, conversion of fibrinogen to fibrin occurs by action of enzyme thrombokinase

D. All chordates possess chambered, muscular dorsal heart to pump blood throughout the body

A. 

B.

C.

D.

Answer:

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85. Serum is

A. Plasma - formed elements

B. Blood - formed elements

C. Plasma - clotting factors

D. Blood - fibrinogen

Answer:

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