BIOLOGY

BOOKS - NTA MOCK TESTS

NEET MOCK TEST 9

Biology

1. Under the unfavourable condition, the Amoeba withdraws its pseudopodia and secretes a three-layered hard covering or cyst around itself . This phenomenon is termed as

A. Binary fission

B. Sporulation

C. Budding

D. Encystation

Answer: D

2. Malignant malaria is caused by

A. Plasmodium vivax

B. Plasmodium malaria

C. Plasmodium falciparum

D. Plasmodium ovale

Answer: C

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3. Gas vacuoles are found in

A. Green photosynthetic bacteria

B. Blue -green algae

C. Purple bacteria

D. All of these

Answer: D

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4. Energy transfer from one trophic level to other , in a food chain , is

A. 0.01

B. 0.02

C. 0.1

D. 0.2

Answer: C

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5. Arrange the following plants in the ascending order of evolution.

Cycads, monocotyledons, dicotyledons, progymnosperms, seed ferns, psilophyton

A. Psilophyton, seed ferns, progymnosperms, cycads, dicotyledons, monocotyledons

B. Psilophyton, progymnosperms, seed ferns, cycads, dicotyledons, monocotyledons

C. Psilophyton, progymnosperms, seed ferns, cycads, monocotyledons, dicotyledons

D. Progymnosperms, psilophyton, seed ferns, cycads, dicotyledons, monocotyledons

Answer: B

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6. Match the organelles in column-I with their function in column -II and choose the correct option .

	Column I		Column II
(a)	Golgi bodies	(i)	Helps in spindle formation
(b)	RER	(ii)	Synthesis and storage of fats
(c)	Microtubules	(iii)	Secretory proteins
(d)	Sphaerosomes	(iv)	Helps in pseudopodia formation
		(v)	Acrosome of sperms

A. $a-i, b-ii, c-iv, d-v$

B. $a-v, b=iii, c-i, d-ii$

C. $a-v, b-iii, c-iv, d-ii$

D. $a - iv, b - iii, c - v, d - ii$

Answer: B

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7. Which of the following is correct, for the mitochondrial ETS ?

A. Number of ATP molecules synthesized does not depend on nature of electron donor

B. Ubiquinon receives reducing equivalents via $FADH_2$ also

C. Cytochrome c is a large protein, attached to outer surface of inner mitochondrial membrane.

D. Complex IV has cyt a and cyt a_3, but no copper centres.

Answer: B

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8. Select the odd one from the following .

A. Anabaena

B. Nostoc

C. Oscillatoria

D. Rhizobium

Answer: D

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9. Plants reproducing by spores such as mosses and ferns are grouped under the general term:-

A. Cryptogams

B. Bryophytes

C. Sporophytes

D. Thallophytes

Answer: A

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10. Highest DDT deposition shall occur in

A. Phytoplankton

B. Birds

C. Crab

D. Eel

Answer: B

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11. A high density of protected animals in National Park can result in :

A. Mutualism

B. Intraspecific competition

C. Emigration

D. Predation

Answer: B

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12. Exon part of m-RNA code for

A. Protein

B. Lipid

C. Carbohydrate

D. Phospholipid

Answer: A

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13. Recombinant protein not used in medical practice is

A. Human growth hormone

B. Interferon (α, β and γ)

C. Insulin

D. Heparin

Answer: D

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14. The causative organism for brown rust of wheat is ?

A. Aspergillus

B. Colletotrichum

C. Xanthomonas

D. Puccinia

Answer: D

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15. Select the distinguishable characters of Ophiura from Balanoglossus

A. Has an endoskeleton of calcareous ossicles

B. Has water vascular system

C. Is radially symmetrical

D. All of the above

Answer: D

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16. The most immediate source of energy for living cells is generally in the form of

A. Lipids

B. Proteins

C. Vitamins

D. Carbohydrates

Answer: D

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17. The main factor responsible for increasing the population is

A. More reproductive capacity

B. Early marriage

C. Higher natality and lower mortality

D. Suitable and favourable environment

Answer: C

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18. Which one of the following statements about human sperm is correct?

A. Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in

fertilization.

B. Acrosome serves as a sensory structure leading the sperm towards the ovum

C. Acrosome serves no particular function.

D. The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilization.

Answer: D

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19. The testes in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for

A. Maintaining the scrotal temperature lower than the internal body temperature

B. Escaping any possible compression by the visceral organs

C. Providing more space for the growth of epididymis

D. Providing a secondary sexual feature for exhibiting the male sex

Answer: A

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20. Family planning programme was initiated in

A. 1941

B. 1951

C. 1961

D. 1981

Answer: B

21. Bacteria are included in which of the following kingdoms

A. Monera

B. Protista

C. Animalia

D. Fungi

Answer: A

22. Arrange the following in the order of their location from the periphery to center in the dicotyledons body

I. Endodermis

II. Metaxylem

III. Trichoblasts

IV. Phloem

A. IV,I,II,III

B. IV,II,III,I

C. I,II,III,IV

D. III,I,IV,II

Answer: D

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23. Where can we find major and minor grooves ?

A. RNA

B. DNA

C. Both RNA and DNA

D. None of these

Answer: B

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24. Which of the following is not a chemically modified sugar ?

A. Glucosamine

B. N-acetyl galactosamine

C. Galacturonic acid

D. Dihydroxyacetone

Answer: D

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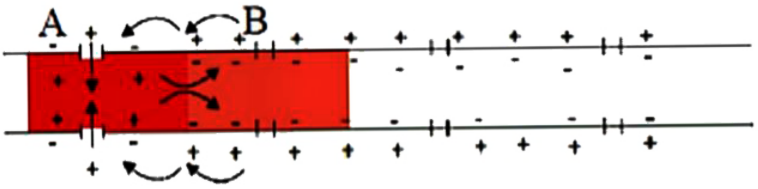
25. Given below is the diagrammatic representation of impulse conduction through an axon.



Select the option with the incorrect information about impulse conduction at points A and B.

A. An electric current flows on the inner surface from site A to B and on outer surface, from site B to A to complete the circuit.

B. Action potential generated at site A arrives at site B

C. Permeability to Na^+ decreases and is quickly followed by a rise in permeability to K^+ at site A. Polarity at the site B is reversed and hence called repolarised.

D. Na^+ channels get closed and K^+ channels get opened at site -A. Depolarization and opening of K^+ channel at site -B

Answer: C

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26. Which of the following pairs of gases is mainly responsible for green house effect?

A. Ozone and Ammonia

B. Oxygen and Nitrogen

C. Nitrogen and Sulphur dioxide

D. Carbon dioxide and Methane

Answer: D

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27. Read the following statements (I-III) about human skeletal system and select the option that correctly

justify the statements.

I. In man, vertebral column has 33 bones organized as 28 bones.

II. Pectoral girdle is made up of two bones only.

III. Osteoporosis is characterized by micro-architectural deterioration of the bone.

A. I is correct

B. II is correct

C. III is correct

D. I is incorrect

Answer: D

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28. Artificial induction of roots on stems before it is separated from the parent plant for propagation is called

A. Cutting

B. Plant tissue culture

C. Grafting

D. Layering

Answer: D

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29. Closed vascular bundles lack

A. Ground tissue

B. Conjunctive tissue

C. Cambium

D. Pith

Answer: C

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30. Activity of succinic dehydrogenase involves the following in TCA cycle.

A. NAD

B. FAD

C. GDP

D. ATP

Answer: B

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31. Nepenthes is a

A. Primary producer

B. Consumer

C. Primary producer and consumer

D. None of the above

Answer: C

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32. Steps taken by the Government of India to control air pollution include

A. Compulsory mixing of 20% ethyl alcohol with petrol and 20% biodisel with diesel

B. Compulsory PUC (Pollution Under Control) certification of petrol-driven vehicles, which do not test for carbon monoxide and hydrocarbons

C. Permission to use only pure diesel with a maximum of 500ppm sulphur as fuel for vehicles

D. Use of non-polluting Compressed Natural Gas (CNG) only as fuel by all buses and trucks

Answer: D

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33. Digestive enzymes are

A. Hydrolases

B. Oxidoreductases

C. Transferases

D. Lyases

Answer: A

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34. Which of the following statements is not true ?

A. The partial pressure of oxygen in oxygenated blood is 95 m Hg

B. The partial pressure of oxygen in the alveolar air is 104 mm Hg

C. The partial pressure of carbon dioxide in the alveolar air is 40mm Hg

D. The partial pressure of carbon dioxide in deoxygenated blood is 95 mm Hg

Answer: D

35. Probes used in DNA finger-printing initially are:

A. Single-stranded RNA

B. Mini satellite

C. 19 base long oligonucleotide

D. All of the above

Answer: A

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36. C-peptide of human insulin is

A. A part of mature insulin molecule

B. Responsible for formation of disulfide bridges

C. Removed during maturation of pro-insulin to insulin

D. Responsible for its biological activity

Answer: C

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37. Which one of the following statement is correct in respect to kidney function regulation

A. During summer when body loses lot of water by evaporation, the release of ADH is suppressed.

B. When someone drinks lot of water, ADH release is suppressed.

C. On exposure to cold temperature, blood flow stimulates formation of Angiotensin II.

D. An increase in glomerular blood flow stimulates formation of Angiotensin II.

Answer: B

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38. How many ATP molecules are generated in Calvin cycle ?

A. 18

B. 12

C. 6

D. 0

Answer: D

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39. When all parts except the leaves of a short-day plant are covered with a light -proof cover and then subjected to short daylight / dark treatment, it will produce flower buds. When a portion of this plant is grafted on to another plant of the same species which has been prevented from flowering by excessive exposure to light, this latter plant will also produce flower buds. Which is the best inference from this result?

A. Hormones can transmit information to all parts of plants

B. Leaves are more sensitive to the photoperiodic stimulus than other parts of the plant

C. The photoperiodic stimulus is received by the leaves and transmitted by a hormone

D. The photoperiodic stimulus is received by all parts of the shoot and transmitted by a hormone.

Answer: C

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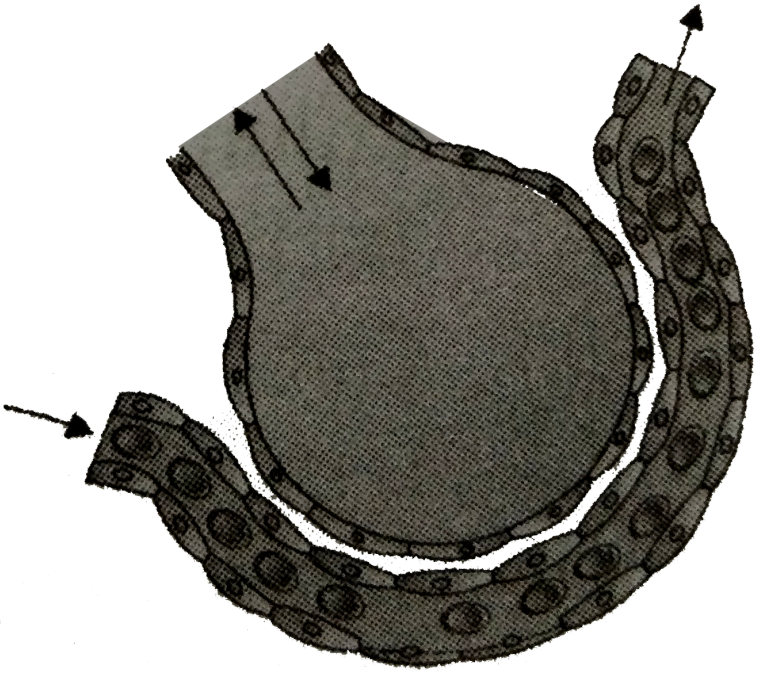
40. The factor which does not affect the rate of alveolar diffusion is



A. Thickness of the membranes

B. Pressure gradient

C. Concentration gradient

D. Reactivity of the gases

Answer: D

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41. In human adult females, oxytocin

A. Is secreted by anterior pituitary

B. Stimulates growth of mammary glands

C. Stimulates pituitary to secrete vasopressin

D. Causes strong uterine contractions during parturition

Answer: D

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42. A normal-visioned man whose father was colour blind, marries a woman whose father was also colour blind. They have their first child as a daughter. What are the chances that this child would be colour blind?

A. 1

B. Zero percent

C. 0.25

D. 0.5

Answer: B

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43. Choose an option with the correct statements from the list below :

i. The telomere is heterochromatic in nature.

ii. The telocentric chromosome has centromere close to its end.

iii. Satellite is located near primary constriction.

iv. Submetacentric chromosomes are L-shaped.

A. i & ii

B. ii & iii

C. iii & iv

D. i, ii and & iv

Answer: D

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44. India's wheat yield revolution in the 1960s was possible primarily due to

A. Hybrid seeds

B. Increased chlorophyll content

C. Mutations resulting in plant height reduction

D. Quantitative trait mutations

Answer: C

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45. Which of the following statements is incorrect for the reaction of opting scientific names over vernacular names ?

A. Vernacular names cannot be used in communications.

B. Some vernacular names have incorrect meaning.

C. Some vernacular names are particularly used for specific organisms only.

D. All organisms do not occur in an area.

Answer: C

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46. Apomixis is

A. Formation of seeds by fusion of gametes

B. Formation of seeds without syngamy and meiosis

C. Formation of seeds with syngamy but no meiosis

D. None of the given options

Answer: B

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47. In the dark reaction of photosynthesis, assimilatory power is used for the reduction of

A. PGA

B. PGAL

C. RuBP

D. PEP

Answer: A

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48. Match the column :

	Column I		Column II
a	Magnesium	p	Found in some amino acids
b	Sulphur	q	Not important for plants
c	Iodine	r	Structural component of chlorophyll
d	Manganese	s	Component of sugar
		t	Required for enzyme activity

A. $\begin{matrix} A & B & C & D \\ r & s & q & p \end{matrix}$

B. $\begin{matrix} A & B & C & D \\ r & p & q & s \end{matrix}$

C. $\begin{matrix} A & B & C & D \\ r & p & q & t \end{matrix}$

D. $\begin{matrix} A & B & C & D \\ s & r & p & t \end{matrix}$

Answer: C

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49. What do epithelial cells of the intestine involved in food absorption have on their surface ?

A. Pinocytic vesicles

B. Phagocytic vesicles

C. Zymogen granules

D. Microvilli

Answer: D

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50. Which of the following cellular organelles is / are bound by a single membrane ?

Peroxisomes, Lysosomes, Mitochondria

A. Only peroxisomes but not lysosomes and mitochondria

B. Both peroxisomes and lysosomes but not mitochondria

C. All of the three organelles

D. None of the three organelles

Answer: B

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51. Marijuana is obtained from

A. Thea sinensis

B. Cannabis sativa

C. Erythroxylum coca

D. Atropa belladona

Answer: B

52. Competition for food, light, and space is most severe between two

A. Distantly related species growing in different habitat

B. Distantly related species growing in the same habitat

C. Closely related species growing in different habitat

D. Closely related species growing in the same area

Answer: D

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53. Consider the following statements

(A) The portion of the spectrum between 500nm and 800 nm is also referred to as photosynthetically active radiation (PAR)

(B) Magnesium, calcium and chloride ions play prominent roles in the photolysis of water

(C) In cyclic photophosphorylation, oxygen is not released (as there is no photolysis of water) and NADPH is also not produced

A. A is true but B and C are false.

B. A and B are false but C is true

C. B is true but A and C are false

D. A and B are true but C is false

Answer: B

54. How many NADPH molecules are formed in a single turn of the Krebs cycle ?

A. 4

B. Zero

C. 3

D. 8

Answer: B

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55. During which stage in the complete oxidation of glucose are the greatest number of ATP molecules formed from ADP

Or

Largest amount of phosphate bond energy is produced in the process of respiration during

A. Electron transport chain

B. Glycolysis

C. Kreb's cycle

D. Conversion of pyruvic acid to acetyl CoA

Answer: C

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56. Which one of the following organisms has a role in converting ammonia into nitrites ?

A. Rhizobium

B. Nitrobacter

C. Nitrosomonas

D. Pseudomonas

Answer: C

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57. Choose the correct statement.

A. Presence of more than one recognition site for one enzyme, within a vector, generate several fragments, which will complicate gene cloning.

B. Ligation of alien DNA is carried out at a restriction site present in 'ori'.

C. In pBR322 one antibiotic resistance gene helps in the selection of transformants, whereas the other helps in cloning.

D. Rop helps in identificaiton of transformed cells.

Answer: A

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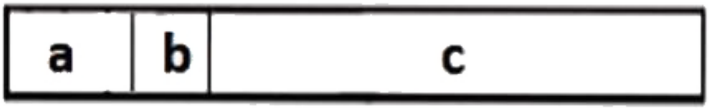
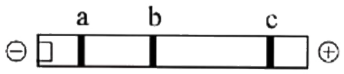
58. A DNA fragement was cleaved by using REN and the restriction fragments (a,b and c) produced as a result of digestion are shown below. Select the option that represents the correct gel electrophoresis separation of

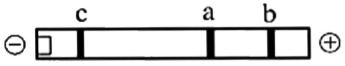
these fragments.



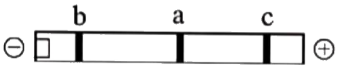
A.



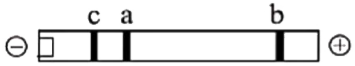
B.



C.



D.



Answer: B

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59. Which of the following statements about HIV is / are correct ?

A. HIV makes a copy of DNA from its RNA genome using enzyme reverse transcriptase.

B. HIV kills the macrophages it infects.

C. The genome of HIV comprises of two single-stranded RNA.

D. HIV causes depletion of helper T lymphocytes, due to which the person starts suffering from infections that would have been otherwise overcome, such as those due to bacteria Mycobacterium and other parasites.

A. A & B

B. A, B & C

C. A,C & D

D. A,B,C & D

Answer: C

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60. Steroid hormones

A. Pass easily through the cell membrane to act in the nucleus

B. Include testosterone, glucocorticoids and relaxin

C. Are produced in the gonads only

D. Stimulates liver cells to convert glucose to glycogen

Answer: A

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61. The cell that divides to form two male nuclei in angiosperms is

A. Vegetative cell

B. Generative cell

C. Tube cell

D. Antheridial cell

Answer: B

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62. The wall of bacteria consists of

A. N-acetylglucosamine

B. N-acetyl muramic acid

C. Both (a) and (b)

D. Cellulose

Answer: C

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63. Mycorrhizae help in the absorption of

A. Calcium

B. Metals

C. Nutrients

D. None of these

Answer: C

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64. Choose the "hinge joint" from the given examples of joints in our body :

(i) Atlanto-axial joint

(ii)Elbow joint

(iii) Interphalangeal joint

(iv) 1^{st} carpo-metacarpal joint

(v) Knee joint

(vi) Public symphysis

A. (i), (ii) and (iii)

B. (ii) ,(iii) and (vi)

C. (iii) , (iv) and (v)

D. (ii), (iii) and (v)

Answer: D

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65. Lateral roots in higher plants arise from

A. Endodermis

B. Epidermis

C. Cortex

D. Pericycle

Answer: D

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66. Botanical gardens and zoological parks have

A. Collection of endemic living species only

B. Collection of exotic living species only

C. Collection of endemic and exotic living species

D. Collection of only local plants and animals

Answer: C

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67. To yield a high amount of the desired protein, which of the following culture methods is suitable in large scale production ?

A. Batch culture

B. Fed batch culture

C. Continuous culture

D. Agarose culture

Answer: C

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68. At the posterior pole of the eye lateral to the blind spot, there is a yellowish pigmented spot called macula lutea with a central pit called the

A. Fovea

B. Blind spot

C. Choroid plexus

D. Ciliary processes

Answer: A

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69. Which one of the following is a micronutrient for plants ?

A. Calcium

B. Magnesium

C. Manganese

D. Nitrogen

Answer: C

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70. Which of the following options has examples of viviparous animals only?

A. Lizard, Turtle

B. Platypus, Crocodile

C. Cow, Crocodile

D. Whale, Mouse

Answer: D

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71. One advantange of cleistogamy is

A. It leads to greater genetic diversity

B. Seed dispersal is more efficient and widespread

C. Seed set is not dependent on pollinators

D. Each visit of a pollinator results in transfer of hundreds of pollen grains

Answer: C

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72. Select the hormone whose level if drops will result in immediate menstruation.

A. FSH

B. FSH-RH

C. Progesterone

D. Estrogen

Answer: C

73. Which of the following hormones can replace vernalization

or

Genetic dwarfness can be overcome by treating with

A. Auxin

B. Ethylene

C. Gibberellins

D. Cytokinin

Answer: C

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74. The tumor -inducing (Ti) plasmid has now been modified into a cloning vector which is no more pathogenic to the plants but is still able to use the mechanisms to deliver genes of our interest into a variety of plants because Ti plasmid has been modified by

A. Adding tumor forming genes

B. Deleting tumor foming genes

C. Adding genes resistant to endonucleases

D. Deleting endonuclease

Answer: B

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75. Which type of tissue is correctly matched with its location?

A.

Tissue	Location
Smooth muscle	Wall of intestine

B.

Tissue	Location
Areolar tissue	Tendons

C.

Tissue	Location
Transitional epithelium	Tip of nose

D.

Tissue	Location
Cuboidal epithelium	Lining of stomach

Answer: A

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76. In some seeds, remnants of nucellus are persistent. Such seeds are called

A. Albuminous seed

B. Ex-albuminous seed

C. Perispermic seed

D. Non-albuminous seed

Answer: C

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77. How many species of orchids have been reported?

A. 3,00,000

B. 28000

C. 20000

D. 72000

Answer: C

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78. The following ratio is generally constant for a given species

A. $A + T / G + C$

B. $T + C / A + G$

C. $A + C / T + G$

D. $G + C / A + T$

Answer: A

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79. What is the function of copper-T ?

A. Prevents mutation

B. Prevents fertilization

C. Prevents zygote formation

D. Prevents both fertilization and zygote formation

Answer: D

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80. What is the other name for "incomplete dominance "?

A. Blending inheritance

B. Co-dominance

C. Pseudo-dominance

D. All the above

Answer: A

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81. What is the main function of anti-transpirants ?

A. Reduce the rate of transpiration without affecting carbon assimilation

B. Reduce the rate of transpiration affecting carbon assimilation

C. Reduce the rate of transpiration affecting growth of plants

D. Reduce the rate of transpiration affecting protein synthesis of plant

Answer: A

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82. Which of the following is not common in Funaria and Selaginella

A. Roots

B. Archegonium

C. Embryo

D. Motile sperms

Answer: A

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83. During evolution of man many changes have taken place in his ancestral characters. Which one of the following is an insignificant change

A. Change of diet from hard tough fruits and roots into soft food

B. Qualitative improvement in the structure of hands skills for making tools

C. Disappearance of tail

D. Improvement in speech for communication and social behaviour

Answer: C

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84. Who said "All cells arise from pre-existing cells" ?

A. Robert Hooke

B. Rudolf Virchow

C. Robert Brown

D. Anton von Leeuwenhoek

Answer: B

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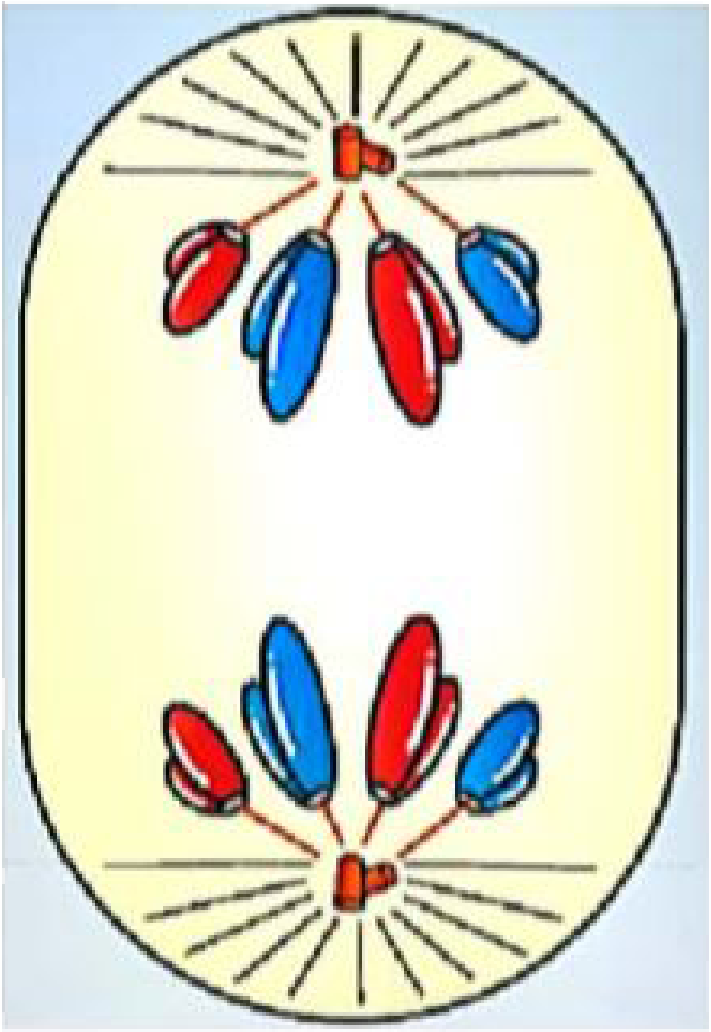
85. The figure given below represents the stage of cell division. Read the following statements.



(i) Nucleolus, Golgi complex and ER reform.

(ii) Chromatids move to the opposite pole.

(iii) The activity of the recombinase enzyme.

(iv) Homologous chromosomes separate while sister

chromatids remains associated at their centromere.

(v) Initiated of the assembly of the mitotic spindle.

How many of the above statements is not true with respect to the above figure-

A. Four

B. Three

C. Five

D. Two

Answer: A

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86. Which of the following structure is not filled with endolymph ?

A. Utriculus

B. Tympanic cavity

C. Saccule

D. Semicircular canal

Answer: B

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87. Himgiri is a variety of _____ , developed by hybridisation and selection for disease resistance against

rust pathogens.

A. Chilli

B. Maize

C. Sugarcane

D. Wheat

Answer: D

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88. A diploid living organism develops from zygote by repeated

A. Meiosis

B. Amitosis

C. Mitosis

D. Segmentation

Answer: C

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89. Which of the following is/are pre-requisite(s) for imbibition ?

(a) Presence of mucilage in the adsorbent.

(b) The affinity between the adsorbent and the liquid.

(c) Water potential gradient between the adsorbent and the liquid.

(d) Presence of cuticle on the surface of the adsorbent.

Choose the correct option from the following.

A. (b) and (c)

B. Only (b)

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

D. (a) and (d)

Answer: A

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90. The atrial wall of our heat secretes a very important peptide hormone called _____, which

_____ because it causes dilation of the blood vessels. Choose the option which correctly fills the blank.

A. Renin, increases the blood pressure

B. Angiotensinogen, decreases the blood pressure

C. Atrial natriuretic factor, increases the blood pressure

D. Atrial natriuretic factor, decreases the blood pressure.

Answer: D

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