BIOLOGY

BOOKS - NTA MOCK TESTS

NTA NEET SET 74

Biology

1. Which of the following is correct with regard to monocot stem ?

A. Monocot stem have a well-developed collenchymatous hypodermis.

B. The vascular bundles are surrounded by a sclerenchymatous bundle sheath .

C. The cortex is differentiated into endodermis and pericycle .

D. The vascular bundles are conjoint and open.

Answer: B

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2. Yeast is a unicellular eukaryote organisms which is included in

A. Protista

B. Monera

C. Phycomycetes

D. Ascomycetes

Answer: D

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3. Which of the following is incorrect ?

A. Cuticle is present on the eipdermis of both stems and roots .

B. The outer walls of guard cells are convex and thin.

C. In grasses the guard cells are dumb bell shaped .

D. The trichomes are usually multicellular.

Answer: A

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4. Find out the CORRECT option for the ploidy of ovary , anther, egg, pollen , male gamete and zygote.

A. 2n,2n , n ,2n , n, 2n

B. 2n, 2n , n ,n , n, 2n

C. $2n, n, n, n, n, n$

D. $2n, 2n, n, 2n, 2n, 2n$

Answer: B

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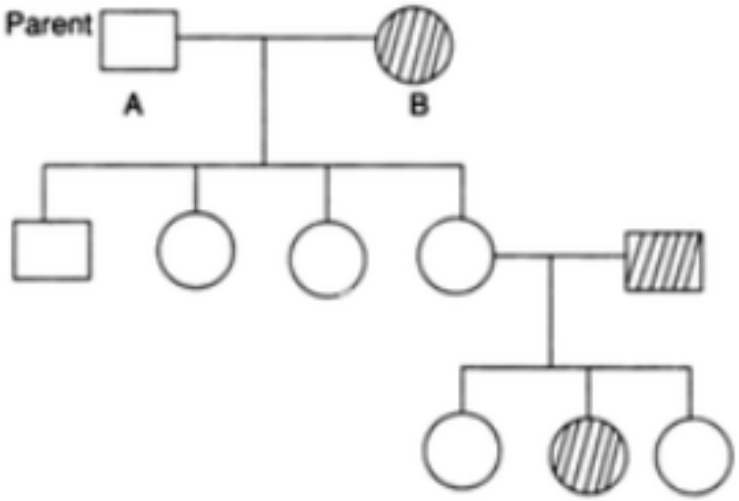
5. Given pedigree shows inheritance of autosomal recessive gene. What is the genotype of given parents ?



A. AA, aa

B. aA, AA

C. aa , aa

D. Aa, Aa

Answer: A

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6. Which Statement depicts incorrect characteristics of Cyanobacteria ?

A. They have chlorophyll a similar to green plants.

B. They are unicellular, colonial or filamentous from

C. Motile specialized cells " heterocysts" are present which can fix atmosphere nitrogen.

D. They form water bloom in polluted water bodies.

Answer: C

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7. In terms of symmetry , the flower of which plant resembles the flowers of Cassie ?

A. Datura

B. Mustard

C. Gulmohar

D. Tomato

Answer: C

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8. Which of the following are correct for numerical taxonomy ?

(i) Based on all observed characteristics.

(ii) Uses chemical constituents of the plant to resolved confusion .

(iii) Based on cytological information like chromosome number , structure and behavior .

(iv) Number and codes assigned to a few characters.

(v) At the same time , hundreds of characters can be considered .

(vi) Carried out using computers .

A. i, v, vi

B. iii, iv ,v

C. i, iv , v , vi

D. ii , ii , v , vi

Answer: A

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9. A fungus with hyphae containing nuclei from different genomes , the nuclei do not fuse and are without sex organ but produces sexual spore belongs to

A. Phycomycetes

B. Zygomycetes

C. Deuteromycetes

D. Basidiomycetes

Answer: D

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10. The pressure of a. Physical berries between stigma and stamen prevents autogamy. This phenomenon is called as

A. Herkogamy

B. Heterostyly

C. Dichogamy

D. Cleistogamy

Answer: A

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11. In which of these disease's does the patient doesn't have the same number of chromosomes as the rest ?

A. Down's syndrome

B. Edward's syndrome

C. Turner's syndrome

D. Klinefelter's syndrome

Answer: C

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12. China rose has

A. Parietal placentation, twisted aestivation , monodelphous, perigynous flower.

B. Axile placentation , twisted aestivation , monodelphous , hypogynous flower.

C. Parietal placentation , volvate aestivation , diadelphous , perigynous flower.

D. Axile placentation , valvate aestivation , diadelphous , hypogenous flower .

Answer: B

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13. An orthotropous ovule is one in which micropyle and chalaza are

A. at right angles to funicle

B. Parallel to the funicle

C. in straight line of funicle

D. Parallel along with ovule

Answer: C

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14. This graphical representation specifics

A. Absorption spectrum

B. Action spectrum

C. both (a) and (b)

D. neither (a) and (b)

Answer: B

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15. Lichens are well known combination of an alga and a fungus where fungus has

A. An epiphytic relationship with the alga

B. A parasitic relationship with the alga

C. A symbiotic relationship with the alge

D. A saprophytic relationship with alga

Answer: C

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16. 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. $10\ \%$

B. zero

C. $50\ \%$

D. $100\ \%$

Answer: B

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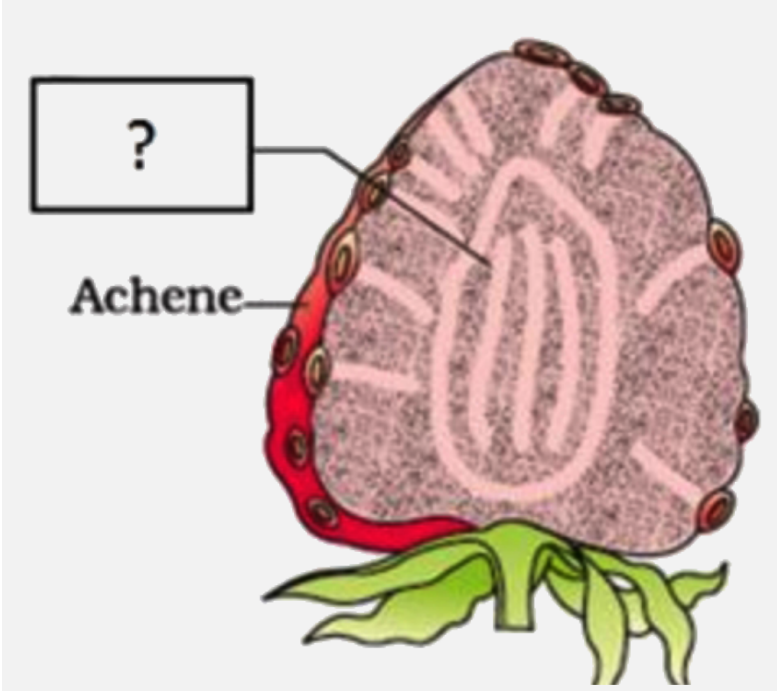
17. Given diagram shows the vertical section of strawberry. Identify the part labelled as '?'



A. Seed

B. coleoptile

C. Pericarp

D. thalamus

Answer: D

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18. What proportion of offsprings in the F.. generation of a tetrahybrid cross will resemble the phenotype of parents that produce the F.. hybrid ?

A. 1/128

B. 1/256

C. 1/1024

D. $1/64$

Answer: A

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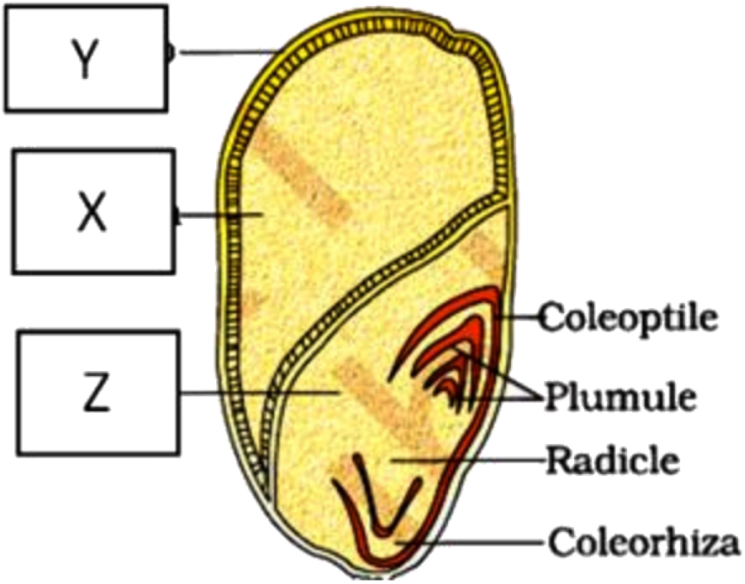
19. The CORRECT names at 'X' ,'Y' & 'Z' respectively are



A. X - Endosperm , Y - Pericarp , Z - Scutellum

B. X - Pericarp , Y - Mesocarp , Z - Scutellum

C. X - Scutellum , Y - Endosperm , Z - Pericarp

D. X - Endosperm , y - Scutellum , Z - Pericap

Answer: A

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20. Egg apparatus consists of

A. egg and two synergids

B. 2 eggs and 2 synergids

C. 2 synergids

D. egg and one synergid

Answer: A

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21. Pyruvate dehydrogenase is used in converting

A. glucose to pyruvate

B. Pyruvate to lactate

C. Pyruvate to glucose

D. Pyruvate to Acetyl Co-A

Answer: D

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22. If flowering is either quantitatively or qualitatively dependent on exposure to low temperature, this phenomenon is termed as

A. Verbalization

B. Photoperiodism

C. Thermoregulation

D. Psychrophilic

Answer: A

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23. Which of the following are the characteristics of phaeophyceae ?

(i) possess chlorophyll a,c carotenoids and xanthophylls.

(ii) Food stored is in the from of laminarin and mannitol.

(iii) Asexual reproduction by biflagellate zoospores that have two equal apically

attached flagella.

(iv) Cell wall has cellulose and algin.

(v) sexual reproduction is oogamous only.

(vi) Gamestes have two laterally attached flagella.

A. i,iii,iv,v

B. ii, iii, v,vi

C. i, ii,iv,vi

D. i,iii , v

Answer: C

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24. Which two statements are correct for recemose inflorescence ?

(i) The main axis continues to grow.

(ii) The main axis terminates in a flower.

(iii) Flowers are borne laterally in acropetal succession .

(iv) Flowers are borne in a basipetal order.

A. i, iii

B. i,iv

C. ii, iii

D. ii,iv

Answer: A

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

A. Glycolysis

B. Kreb's cycle

C. Decarboxylation

D. ETS

Answer: D

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26. A person wanted to create a lawn for his home garden , so he planted grass all over the area. He observed that many other weeds also

growing in the garden. To remove that weed what weedicide he should use ?

A. Gibberellic acid

B. Ethylene

C. IBA

D. 2,4 - D

Answer: D

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27. Co-dominance is seen in the person who has a blood group

A. A

B. B

C. AB

D. O

Answer: C

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28. In a typical Mendelian cross, which is a dihybrid cross, one parent is homoxygous for both dominant traits and another parent is homozygous for both recessive traits. In the F_2 -generation, both parental combination and recombinantions appear. The phenotypic ratio of parental combinations to recombinations is

A. $15:1$

B. $12:4$

C. $9:7$

D. $10:6$

Answer: D

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29. PGA as the first CO_2 fixation product was discovered in photosynthesis of

A. Bryophyte

B. Gymnosperm

C. Angiosperm

D. Alge

Answer: D

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30. Increase in concentration of the toxicant at successive trophic levels is known as:

A. Biodeterioration

B. Biotransformation

C. Biogeochemical cycling

D. Biomagnification

Answer: D

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31. Which one of the following organelles in the figure CORRECTLY matches with its functions ?

A. Golgi apparatus , protein synthesis

B. Golgi apparatus , formation of lipids

C. Rough endoplasmic reticulum , protein synthesis

D. Rough endoplasmic reticulum , formation of lipids

Answer: C

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32. If a population grows in a habitat with limited resources , then following phases of achievement observed

A. Lag $\rightarrow$ Acceleration $\rightarrow$ Deceleration $\rightarrow$ Asymptote

B. Log $\rightarrow$ Deceleration $\rightarrow$ Acceleration $\rightarrow$ Asymptotic

C. Log $\rightarrow$ Acceleration $\rightarrow$ Deceleration $\rightarrow$ Asymptotic

D. Lag $\rightarrow$ Acceleration $\rightarrow$ Asymptotic $\rightarrow$ Deceleration

Answer: A

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33. The correct sequence of seral stages in hydrosere is:

A. Phytoplankton - Rooted submerged stage - Rooted free floating plant-reed

swamp stage-marsh meadow stage-scrub stage - forest

B. Scrub stages - forest - reed swamp stage-marsh meadow stage - submerged free floating plant stage - submerged plant-phytoplankton

C. Submerged plant-marsh meadow stage - scrub stages - forest -phytoplankton-submerged free floating plant stage-reed swamp stage

D. Phytoplankton - red swamp stage - scrub stages - forest - submerged plant - submerged free floating plant stage - marsh meadow stage

Answer: A

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34. Which of the following will DNA melt at the lowest temperature?

A. 5'– AATAAAGC – 3'

3'– TTATTTGCG – 5'

B. 5'– AATGCTGC – 3'

3'– TTACGACG– 5'

C. 5'– ATGCTGAT – 3'

3'– TACGACTA – 5'

D. 5' – GCATAGUT– 3'

3' – CGTATCGA – 5'

Answer: A

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35. Choose CORRECT statements from the following.

(P) The western Ghats have greater amphibian species diversity than the Eastern Ghats

(Q) Diversity exist at all levels of biological organization ranging from macromolecules within cells to biomes.

(R) Rauwolfia vomitoria show the genetic variation in terms of potency and concentration of the reserpine produced.

(S) Norway has a greater ecosystem diversity than India .

A. P and Q only

B. Q and S only

C. P,Q and R only

D. S only

Answer: C

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36. Taxonomic studies consider a group of individuals organisms with fundamental similarities as a

A. genus

B. Species

C. Order

D. Phylum

Answer: B

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37. Which of the cells stay in the $G_{\circ}$ phase ?

A. Multinucleated muscle cells

B. Heart muscle cells

C. Neurons

D. All of these

Answer: D

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38. Morgan chose fruit files (Drosophila melanogaster) as the study model for his experiment. Certain reason made this organism suitable for the study . Which of the following is not one such reason ?

A. They could be grown on simple synthetic medium in the laboratory .

B. They taken about 6 weeks to complete their life cycle .

C. A single mating could produce a large number of progeny files .

D. The male and female files are easily distinguishable .

Answer: B

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39. Study the given diagram and identify A to F.

A. A - variable loop ,B – D - arm ,C - T - loop, D – anticodon arm ,E – codon , F – variable arm

B. A – amino acid arm ,B – T loop ,C – T - variable arm ,D – anticodon arm ,E – codon , F – D- loop

C. A – amio acid arm ,B –T loop ,C – anticodon loop, D - anticodon ,E – Codon , F –D - loop

D. A – amino acid arm ,B – T – loop ,C – T – variable arm,D – anticodon arm ,E – codon , F – variable arm

Answer: C

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40. Resistance genes present in pBR322 are

A. Penicillin and ampicillin

B. Ampicillin and tetracycline

C. Tetracycline and erythromycin

D. Erythromycin and ampicillin.

Answer: B

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41. Production of human protein in bacteria by genetic engineering is possible because

A. The human chromosome can replicate in bacterial cell

B. The mechanism of gene regulation is identical in humans and bacteria

C. Bacteria cell can carry out the RNA splicing reactions

D. The genetic code is universal

Answer: D

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42. The amount of nutrients , such as carbon , nitrogen , phosphorus , calcium , etc . Present in the soil at any given time I reffered to as

A. Standing crop

B. Standing mass

C. Standing state

D. Mineralization

Answer: C

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43. What percentage of forest cover for the plains has been recommended by National Forest Policy (1988) of India?

A. 33%

B. 67%

C. 30%

D. 19.4%

Answer: A

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44. In India, we find mangoes with different flavours, colours, fibre content , sugar content and even shelf-life. The large variation is on account of

A. Species diversity

B. Induced Mutations

C. Genetic diversity

D. Hybridisation.

Answer: C

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45. Transgenic plants are the ones:

A. Grown in artificial medium after hybridization In the field

B. Produced after protoplast fusion in artificial medium

C. Product by somatic embryo in artificial medium

D. Generated by introducing foreign DNA into cell and regeneration a plant from that cell.

Answer: D

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46. Rising of dough is due is

A. Multiplication of yeast

B. Production of CO_2

C. Emulsification

D. Hydrolysis of wheat flour starch into sugars .

Answer: B

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47. An enzyme catalysing the removal of nucleotides from the ends of DNA is

A. Endonuclease

B. Exonuclease

C. DNA ligase

D. Hindi-II

Answer: B

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48. Which one of the following is not a nitrogen-fixing organism ?

A. Anabaena

B. Nostoc

C. Azotobacter

D. Pseudomonas.

Answer: D

49. Totipotent cell refers to

A. An undifferentiated cells capable of developing into complete embryo

B. An undifferentiated cells capable of developing into an organ

C. An undifferentiated cells capable of developing into a system or entire plant

D. Cell which lack the capability or differentiating into an organ or system

Answer: C

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50. Which of the following is correct regarding genetic code ?

A. UUU is the initiation codon which also codes for phenylalanine

B. There are 64 triplet codons and only 20 amino acids

C. Three random nitrogen bases specify the placement of one amino acid

D. UAA is the nonsense codon which also codes for methionine

Answer: B

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51. Which of the following statements is true regarding sexual reproduction ?

A. Off spring are not identical to the parents but identical among themselves

.

B. Off spring are identical to the parents but not identical among themselves

C. Off springs are identical to the parents and identical among themselves

D. Off Springs are not identical to the parents or among themselves

Answer: D

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52. A special type of diffusion when water is absorbed by solids , colloids causing increase in volume is called

A. reverse osmosis

B. imbibition

C. Osmosis

D. Both A & B

Answer: B

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53. The ribosomes present in the cytoplasm of the causative organism of cholera and Mitochondria of causative organism of malaria , respectively , are

A. 70S and 70S

B. 70S and 80S

C. 80S and 70S

D. 80S and 80S

Answer: A

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54. Select the corret matches

(a) S-phase - DNA replication

(b) Zygotene - Synapsis

(c) Diplotene - Crossing over

(d) Meiosis - Both haploid and diploid cells

(e)Gap 2 phase - Quiescent stage

A. A and B

B. C and D

C. C and E

D. A, C and E

Answer: A

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55. The residue left after methane production from cattle dung is

A. Burnt

B. Buried in lands fills

C. Used as manure

D. Used in civil construction .

Answer: C

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56. The most important feature in a plasmid to be used as a vector is

A. Origin of replication (ori)

B. Presence of a selectable marker

C. Presence of sites for restriction endonuclease

D. It size .

Answer: A

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57. Which of the following animals undergo aestivation ?

A. zooplankton and phytoplankton

B. Snails and fish

C. bears and seals

D. Snails and Octopus

Answer: B

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58. Approximately how much of the solar energy that falls on the leaves of a plant is converted to chemical energy by photosynthesis?

A. 1%

B. 5%

C. 20%

D. 50%

Answer: A

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59. Forest in a tropical region of Equator has ten times more vascular plants than a forest in temperature region of Midwest of the USA,

although both are equal in terms of area . This is an example of

A. Latitudinal gradient

B. Longitudinal gradient

C. Temperature gradient

D. Altitudinal gradient

Answer: A

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60. Four characters (a -.d) are given below . Which two are CORRECT about phylum arthropods ?

(i) it is the largest phylum of animal kingdom .

(ii) one third of all named species on earth are arthropods.

(iii)They are bilaterally symmetrical , triploblastic and segmented animals .

(iv) The body is covered by calcareous exoskeleton.

A. (i) and (ii)

B. (i) and (iii)

C. (i) and (iv)

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

Answer: B

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61. Select the INCORRECT statement from the following .

A. All biomolecules show turnover in cell.

B. There is no uncatalysed reaction in living system .

C. Metabolic pathways are either linear or circular

D. Living state is an equilibrium steady state to perform work .

Answer: D

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62. The given structure belongs to the organism of the phylum :

A. Porifera

B. Cnidaria

C. Protista

D. Ctenophora

Answer: B

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63. Choose the incorrect Statement from the following.

A. Proteins are made up of polypeptides.

B. Acid insoluble pool contains nucleic acids .

C. Amino acids are ionizable.

D. All proteins are enzymes.

Answer: D

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64. In electrocardiography P-Q interval represents :

A. Atrial depolarization

B. Ventricular depolarization

C. Conduction time through atria , A.V node and rest of conducting tissue

D. Ventricular repolarization

Answer: C

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65. Match the structure listed under column -I with the functional names given under column - II , choose the answer which gives the correct combination of the alphabets of the two columns .

Column – I (Structures)	Column – II (Functional names)
A. Larynx	P. Lid of the larynx
B. Trachea	Q. Air sacs
C. Alveoli	R. Voice box
D. Epiglottis	S. Windpipe
	T. Common passage

A. $\begin{matrix} A & B & C & D \\ R & T & Q & S \end{matrix}$

B. $\begin{matrix} A & B & C & D \\ R & S & P & Q \end{matrix}$

C. $\begin{matrix} A & B & C & D \\ R & S & Q & T \end{matrix}$

D. $\begin{matrix} A & B & C & D \\ R & S & Q & P \end{matrix}$

Answer: D

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66. The blood pressure values of four persons are given below

(i) Mr. A 120/80 mm Hg

(ii)Mr. B 80/120 mm Hg

(iii) Mrs A 90/80 mm Hg

(iv) Mrs. B 150/80 mm Hg

Who among the following has normal blood pressure ?

A. Mr. A

B. Mr. B

C. Mrs. A

D. Mrs. B

Answer: A

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67. Which of the following is CORRECT regarding Chemosensitive area ?

A. It is located in the medulla region .

B. It is highly sensitive to O_2

C. High H^+ concentration activates the rhthm centre

D. Both (A) and (C)

Answer: D

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68. The chemical and physical properties of Amino acids are of essentially because of :

A. Amino group

B. Carboxyl group

C. Functional - R group

D. All of these

Answer: D

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69. An ideal contraceptives should be

A. easily unavailable .

B. effective and irreversible

C. With no or least side effects

D. More than one option is correct .

Answer: C

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70. Which of the following was used as an energy source by Miller in his experiment?

A. Methane , ammonia , hydrogen and carbon monoxide .

B. Ammonia , water carbon dioxide and oxygen .

C. Methane , water , oxides of nitrogen and oxygen .

D. Methane , ammonia , hydrogen and water vapour .

Answer: D

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71. In the given diagram cystic duct and common bile duct are

A. 1 and 4

B. 2 and 3

C. 1 and 3

D. 4 and 2

Answer: C

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72. Primary exposure to antigenic proteins of pathogen results in the production of all except

A. B - cell - antibodies

B. T cell - antibodies

C. B memory cells

D. T memory cells

Answer: B

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73. Which of the following is not involved in the endocrine secretion ?

A. Leydig cell

B. Lutein cell

C. Para - follicular cells of thyroid

D. Kupffer cells

Answer: D

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74. Which lobe of cerebrum is responsible for solving analytical problems ?

A. Occipital lobe

B. Parietal lobe

C. Frontal lobe

D. Temporal lobe

Answer: C

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75. The supporting cells of nervous tissue is

A. neurons .

B. neuroglia.

C. myelinated fibres .

D. both (A) & (C)

Answer: B

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76. Select the INCORRECT statement .

A. Efferent arteriole has wider lumen than that of afferent arteriole.

B. Efferent arteriole arises from the glomerulus.

C. Efferent arteriole division to from perutubular capillary network around PCT and DCT.

D. Renal artery enters the kidney and divides into afferent arterioles.

Answer: A

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77. In the mechanism of action of a protein hor- mone, one of the second messengers is

A. Cyclic AMP.

B. insulin .

C. T_3

D. gastrin

Answer: A

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78. The sporozoites that cause infection, when a female Anopheles mosquito bites a person, are formed in

A. liver of human

B. RBCs of mosquito .

C. Salivary glands mosquito.

D. intestine of human .

Answer: C

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79. Genteic variation in a population arises due to

A. recombination only.

B. recombination as well as Mutation.

C. Reproductive isolated & selection .

D. Mutations only .

Answer: B

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80. The shared terminal duct of the reproductive and urinary system in the human male is

A. Urethra.

B. Ureter .

C. Cervical canal.

D. no such common duct exist .

Answer: D

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81. The genes causing cancer are

A. Structural genes

B. Expresser genes

C. Oncogenes

D. Regulatory genes.

Answer: C

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82. How many ova and sperms will be produced from 100 secondary oocytes and 100 secondary spermatocytes during gametogenesis in a man ?

A. 50 ova , 100 sperms

B. 100, ove 100 sperms

C. 200 ova , 200 sperms

D. 100 ova , 200 sperms

Answer: D

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83. Choose the CORRECT statement .

A. Cockroach is a diurnal organisms.

B. RBCs of cockroach are white in colour.

C. Abdomen of female cockroach is made up of 4segments.

D. Abdomen of both male and female cockroach is Made up of 10 segments

Answer: D

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84. The smallest bone in the human body is

A. Malleus.

B. Vestibule

C. Stapes.

D. tarsal.

Answer: C

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85. In a sarcomere, the thin filaments are bisected by :

A. Z-line

B. M-line

C. H-zone

D. F-line

Answer: A

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86. Which of the following structures is present in the diencephalon ?

A. Cerebral cortex

B. Cerebral lobes

C. Hypothalamus

D. Medulla oblongata

Answer: C

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87. A hormone responsible for normal sleep wake cycle is

A. epinephrine.

B. gastrin.

C. melatonin.

D. insulin.

Answer: C

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88. Choose the CORRECT statement regarding ZIFT .

A. Ova collected from the female donor are transferred to the fallopian tube to facilitate zygote formation .

B. Zygote formed in In - Vitro conditions is transferred to the fallopian tube its mother or surrogate mother.

C. Zygote is collected from a female donor and transferred to the uterus .

D. Ova collected from famale donor and transferred to the uterus.

Answer: B

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89. Which of the following evidences does not favour the lamarckian concept of inheritance of acquired characters?

A. Lack of pigments in cave- dwelling animals .

B. Melanization in peppered moth

C. Absence of limbs in snakes

D. Presence of webbed toes in aquatic birds

Answer: B

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90. Secretion from which one of the following is rich in fructose, calcium and some enzymes

A. Seminal vesicle

B. Liver

C. Pancreas

D. salivary glands

Answer: A

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