BIOLOGY

NTA MOCK TESTS ENGLISH

NTA NEET SET 59

Biology

1. How many of the following organisms show the type of symmetry which is similar tie actinomorphic flowers?

Spongilla , Adamsia, Gorgonia , pleuroblanchia , Taenia , Cucmaria , Ophiura

A. 7

B. 6

C. 5

D. 4

Answer: C

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2. Identify the odd one from the diseases given below.

A. Malaria

B. Filariasis

C. Chikungunya

D. Ringworm

Answer: D

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3. In human males urethra has

(a) transitional epithelium

(b) Pseudostratified non-ciliated columnar epithelium

(c) non - keratinised stratified squamous epithelium

(d) all of these

A. transitional epithelium

B. Pseudostratified non-ciliated columnar epithelium

C. non - keratinised stratified squamous epithelium

D. all of these

Answer: D

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4. Mark the correct statements about major abiotic factors

.

I . Temperature on land varies seasonally, increase progressively from the equator towards the from plains to the mountain tops .

II. Light is important in animals as they use the diurnal seasonal variations in light intensity and duration as cues for timing their forging, reproductive and migratory activities.

III. Various characteristics of the soil such as soil composition, grain size and aggregation determine the

percolation and water holding capacity of the soils .

IV. The salt concentration is more than 5% in inland waters

A. I and III

B. II and III

C. I,II and IV

D. I,III and IV

Answer: B

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5. Identify the correct sequence with respect to the growth of slime moulds.

(a) Slime moulds $\rightarrow$ unfavourable conditions $\rightarrow$

plasmodium → favourable conditions → spore formation

(b) Slime moulds → favourable conditions → spore formation → unfavourable conditions → Plasmodium

(c) Slime moulds → favourable conditions → Plasmodium → unfavorable conditions → Spore formation

(d) Slime moulds → Unfavourable conditions → Spore formation → favourable conditions. → Plasmodium

A. Slime moulds → unfavourable conditions → plasmodium → favourable conditions → spore formation

B. Slime moulds → favourable conditions → spore formation → unfavourable conditions →

Plasmodium

C. Slime moulds $\rightarrow$ favourable conditions $\rightarrow$ Plasmodium $\rightarrow$ unfavorable conditions $\rightarrow$ Spore formation

D. Slime moulds $\rightarrow$ Unfavourable conditions $\rightarrow$ Spore formation $\rightarrow$ favourable conditions. $\rightarrow$ Plasmodium

Answer: C

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6. A pea plant is heterozygous for a character and recessive homozygous for another character. Both these characters

are located on different chromosomes . Another pea plant of the same species is heterozygous for both the characters. If these plants are crossed , what proportion of their offsprings will be heterozygous only for one character ?

A. $25\ \%$

B. $50\ \%$

C. $75\ \%$

D. $100\ \%$

Answer: B

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7. Following are some features of cockroach:

I. Number of ovarioles in a female cockroach (Ov)

II. The average number of oothecae produced by a female cockroach (Ot)

III. The number of times a nymph of cockroach undergoes moulting (M)

IV. The number of gastric caecae present in cockroach (G)

The correct arrangement of these in their increasing order is

A. $G < Ov < Ot < M$

B. $G < Ov < M < Ot$

C. $Ov < G < \mathrm{Ot} < M$

D. $G < Ot < M < Ov$

Answer: D

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8. Which of the following statements is correct for the phylum whose organisms are characterized by the presence of a dorsal hollow nerve cord and paired pharyngeal gill slits ?

A. In all protochordates , notochord extends from head to tail region and is persistent throughout the life.

B. The members of the class to which Myxine belongs show the presence of a sucking and circular mouth without jaws.

C. Members of the class Osteichthyes show the presence of an air bladder , a streamlined body and four gills covered by operculum.

D. Thee members of the class to which the frog belongs are cold blooded , show external fertilization and a three chambered heart i.e one auricle and two ventricles.

Answer: B

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9. What are Mule, Tigon, Liger, Hinny ?

A. Species

B. Sub-species

C. hybrids

D. category

Answer: C

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10. Identify the correct match of the scientist and their discovery:

(a) T.H. Diener : An agent consisting of abnormally folded protein

(b) W.M. Stanley : Crystals from viruses contain proteins.

(c) M.W. Beijernick : Recognised TMV

(d) Ivanowsky : Contagium vivum fluidum

A. T.H. Diener : An agent consisting of abnormally folded protein

B. W.M. Stanley : Crystals from viruses contain proteins.

C. M.W. Beijernick : Recognised TMY

D. Ivanowsky : Contagium vivum fluidum

Answer: B

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11. Drosophila with $y^{+}w/yw$ genotype has

A. brown body , red eyes

B. Yellow body , red eyes

C. Yellow body , white eyes

D. brown body , white eyes

Answer: D

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12. Which of these is correct about cell organelles in the cell of a mouse ?

	Non-membrane bound	Single membrane bound	Double membrane bound
I.	Ribosome, Lysosome	Peroxisome, Golgi body	Mitochondria, Nucleus
II.	Ribosome, Nucleolus	Golgi body, Cilia	Mesosomes, Mitochondria
III.	Centriole, Ribosome	Lysosome, Vacuole	Mitochondria, Nucleus
IV.	Centriole, Ribosome	Peroxisome, Golgi body	Mitochondria, Lysosome

A. I

B. II

C. III

D. IV

Answer: C

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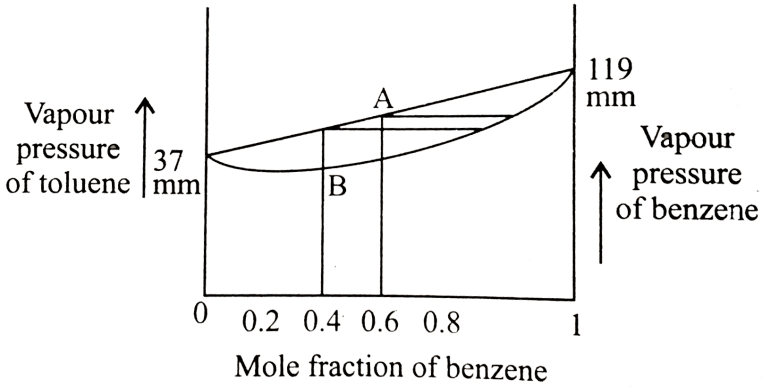
13. Choose the correct option:



A. The part C in duodenum contain special glands celled Brunner's gland

B. Part A is made up of thin epithelium from visceral organs and some connective tissue .

C. Part E has circular muscles while Part D has longitudinal muscles which help in peristaltic movements of the alimentary canal.

D. Part B is made up of dense connective tissue containing nerves, blood and lymph vessels.

Answer: B

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14. Identify the correct match .

1. Stratification : Vertical distribution of different species occupying different levels .

2. Secondary productivity : Amount of biomass or organic matter produced per unit area over a time period by plant during photosynthesis .

3. Primary productivity : Rate of formation of new organic matter by consumers .

4 Decomposition : Break down complex organic matter into inorganic substances like carbon dioxide , water and nutrients

A. 1 and 3

B. 2 and 4

C. 1 and 4

D. 2 and 3

Answer: C

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15. In the given options , there is q property of a group and a representative example following that property . Which

of these is incorrect ?

A. All prokaryotes classified under kingdom Monera have cell wall (Mycoplasma)

B. All viroids have single stranded RNA as genetic material (Potato Tube spindle Viroid)

C. All Prions don't have nucleic acid as their genetic material (Bovine Spongiform Encephalopathy prion)

D. Unicellular plants have been placed in Kingdom Protista by Whittaker (Chlorella)

Answer: A

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16. A person having which of these blood groups is surely homozygous ?

A. O Rh + ve

B. A Rh - ve

C. AB Rh+ ve

D. O Rh-ve

Answer: D

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17. Ribosomes is an organelle observed in a eukaryotic cell involved in protein synthesis . Ribosomes of a eukaryotic is 80S type . It is associated with which of these ?

I. Plasmid

II. Mitochondrion

III. Nucleus

IV. Golgi Body

V.Endoplasmic Reticulum

A. I, II, III and IV

B. I, II and III only

C. I and II only

D. III and V only

Answer: D

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18. Read the following statements and identify the incorrect one .

A. The movements exhibited by macrophages and leucocytes and streaming of protoplasm are examples of the same movement .

B. The activity of muscles located in the reproductive tract is not under the voluntary control of the nervous system .

C. In the muscle fibers which have less quantity of myoglobin, the number of mitochondria as well as sarcoplasmic reticulum is also less.

D. The bones of the limbs along with their girdles constitute appendicular skeleton.

Answer: C

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19. Which of the following statements are true ?

1. Gross primary productivity is always greater than Net Primary productivity .

2. Gross primary productivity plus the respiration losses give us Net Primary productivity .

3. The rate of respiration of plants affects the Net Primary productivity .

4. Net primary productivity + Gross primary productivity = Respiratory loss.

A. 1 - True , 2 - False , 3 - True , 4 - False

B. 1 - True , 2 - True , 3 - False , 4 - False

C. 1 - False , 2 - False , 3 - True , 4 - True

D. 1 - True , 2 - True , 3 - True , 4 - False

Answer: A

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20. Which of the following statements are true about heterocyst?

1. They are formed in blue - green algae.

2. Heterocysts are nitrogen - fixing cells.

3. Heterocyts are formed during nitrogen starvation .

4. Anabaena and Nostoc are examples of heterocyst forming bacteria.

A. 1,3

B. 1,2,3

C. 2,3

D. 1,2,3,4

Answer: D

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21. Child B is born with the characteristic palmer crease on the palm Which statement about this child is correct ?

A. The child has 47 chromosomes which includes an extra X chromosome

B. The has 45 chromosomes which includes one X chromosome less

C. The has 45 chromosomes which includes one autosome less

D. The child has 47 chromosomes which includes an extra autosome

Answer: D

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22. Which of the following statements are correct regarding the organelle, lysosome ?

I. It contains enzymes mostly active in acidic pH.

II. It is known as the suicidal bag .

III. These organelles are directly derived from the endoplasmic reticulum .

IV. It contains water , sap, excretory product and other materials not useful for the cell.

(a) I , II ,III and IV

(b) I and II only

(c) II and III only

(d) I, II and IV only

A. I , II ,III and IV

B. I and II only

C. II and III only

D. I, II and IV only

Answer: B

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23. Which of the following is correct about the appendicular skeleton ?

i. The clavicle articulates with the glenoid cavity.

ii. Pectoral and pelvic girdle bones help in the articulation of the upper and the lower limbs respectively with the axial skeleton .

iii. The calvicle is a triangular flat bone situated in the

dorsal part of the thorax between the second and seventh ribs .

iv. There are 8 carpal bones in hand .

A. i, ii and iv

B. ii and iv

C. ii and iii

D. i and iv

Answer: B

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24. The process of decomposition which is incorrect is

A. Fragmentation : Break down detritus into smaller particles

B. Leaching : water soluble inorganic nutrients go down into the soil horizon

C. catabolism : Enzymes degrade detritus into simpler inorganic substances

D. Humification : Release of inorganic nutrients from humus

Answer: D

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25. Match the features of given algae with their respective examples :

Features	Organism
1. Filamentous form with flagellated gamete.	a. Ulothrix
2. Colonial oogamous form.	b. Spirogyra
3. Forming Massive plant bodies.	c . Volvox
4. Filamentous form with non motile gamete.	d. Kelps
	e. Fucus

A. 1- e, 2 - b , 3 - d , 4 - a

B. 1 - b , 2 - e , 3 - d , 4 - c

C. 1 - a , 2 - c , 3 - d , 4 - b

D. 1 - c , 2 - a , 3 - e , 4 - d

Answer: C

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26. Which of these statements about linkage groups are correct ?

A. Drosophila has four linkage groups while pisum has seven linkage groups

B. Drosophila has eight linkage groups while pisum has fourteen linkage groups

C. Pisum has four linkage groups while Drosophila has fourteen linkage groups

D. Pisum has eight linkage groups while Drosophila has fourteen linkage groups

Answer: A

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27. Match the following

Column-I (Periodic properties)	Column-II (Function of)
(A) Electronegativity	(p) Effective nuclear charge
(B) Atomic radii	(q) Screening effect
(C) Ionization energy	(r) Electronic configuration
(D) Electron affinity	(s) Be > B (Half filled and fully filled configuration)

A. $1-II-iv, 2-I-iii, 3-IV-i, 4-III-ii$

B. $1-II-ii, 2-I-iv, 3-III-iii, 4-IV-i$

C. $1-III-ii, 2-II-iii, 3-I-iv, 4-IV-i$

D. $1-I-iv, 2-IV-i, 3-II-ii, 4-III-iii$

Answer: A

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28. Which of the following pairs of organisms are correctly matched with their description ?

1. Pteridophytes which are heterosporous : Selaginella , salvinia

2. Gymnosperms with branched stem : Pinus , Cedrus

3. Algae with haplo - diplontic life cycle : Ectocarpus, polysiphonia

4. Bryophytes with protonema stage : polytrichum , sphagnum

A. 1, 3

B. 2, 4

C. 1,2,3,4

D. 1,3,4

Answer: C

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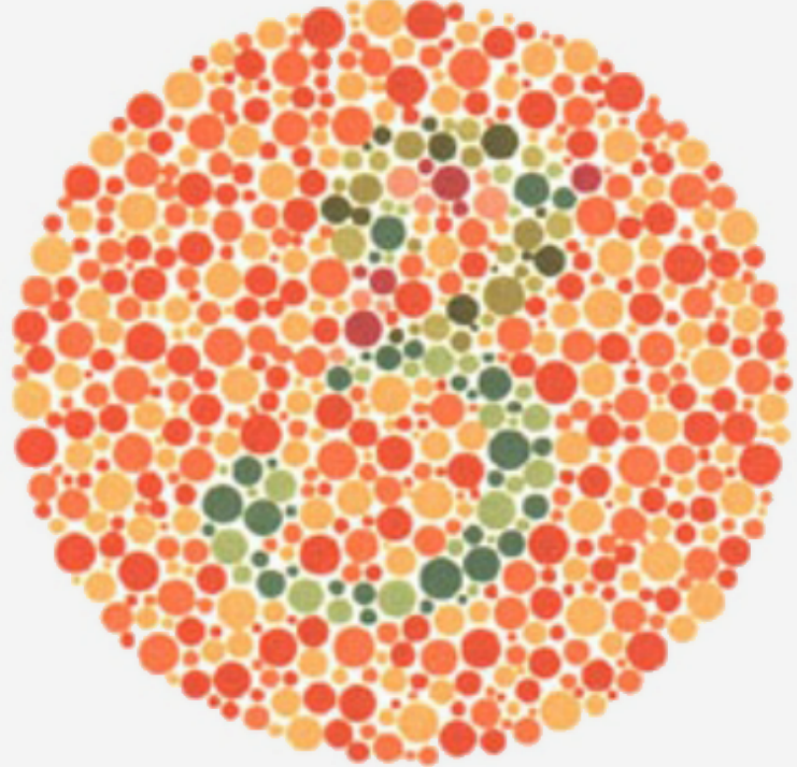
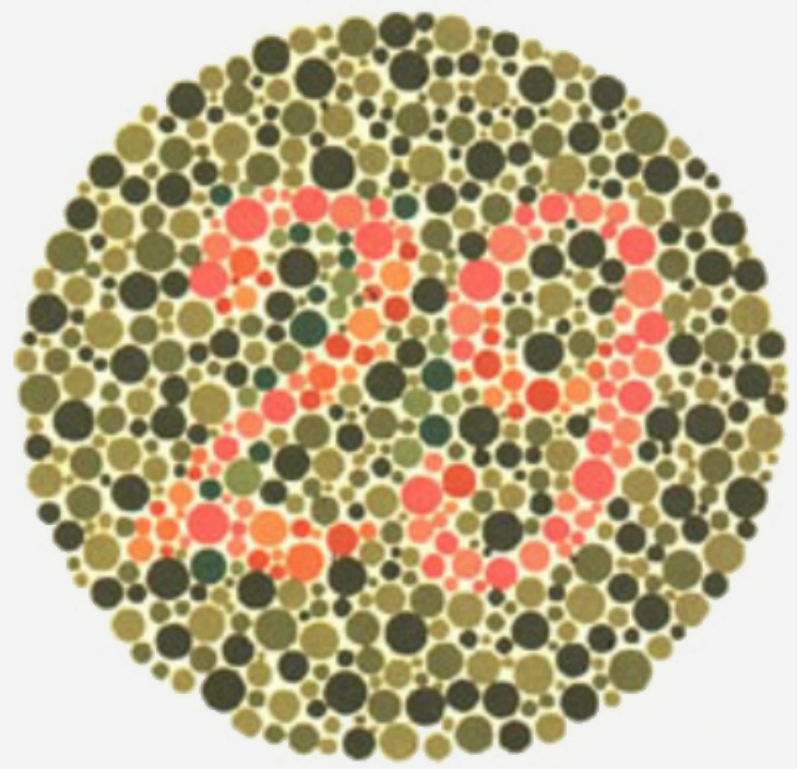
29. What can be predicted about the offsprings of a couple, if both of them can read the numbers in the picture given below clearly ?





A. They can have colourblind sons as well has colourblind daughters

B. They can have colourblind daughters but not colourblind son.

C. They can have colourblind sons but not colourblind daughters

D. There is no chance that any of their children can have colourblindness

Answer: C

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30. How many of the following organic compounds found in organisms have no direct role in their normal growth and development but may have human welfare benefits ?

1. Alkaloids ,2. Flavonoids , 3 . Rubber , 4. Essential oils , 5. Antibiotics ,6 . Coloured pigments , 7. Scents 8. Spices

A. 1 to 8

B. All except 5 and 8

C. 1,2,6 and 7 only

D. All except 1 and 5

Answer: A

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31. Which of these statements about the human ear is true ?

A. Th Crista and macula are the specific receptors of the vestibular apparatus responsible for maintenance of balance of the body and posture .

B. The fluid between bony labyrinth and membranous labyrinth is endolymph

C. The lateral most ear ossicle is stapes while the medial most ear ossicles is malleus

D. A large number of processes called stereo cilia are projected from the basal part of each hair cell of organ of corti

Answer: A

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32. Complete the following sentence using the appropriate option.

X is the term popularized by Y , a Z to describe combined diversity at all the levels of biological organization.

(a) X - Ecosystem , Y - Alexander von Humboldt , Z - Geologist

(b) X - Biodiversity , Y - Edward Wilson , Z - Sociobiologist

(c) X - Ecosystem , Y - Robert May , Z - Environmentalist

(d) X - Ecology , Y - Gause , Z - Ecologist

A. X - Ecosystem , Y - Alexander von Humboldt , Z - Geologist

B. X - Biodiversity , Y - Edward Wilson , Z - Sociobiologist .

C. X - Ecosystem , Y - Robert May , Z - Environmentalist

D. X - Ecology , Y - Gause , Z - Ecologist

Answer: B

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33. Identify which of the given statements are correct .

A. Mineral nutrients have multi-directional flow through xylem in plants .

B. Transport in xylem is from stem to roots .

C. Mineral nutrients are transported upwards from root to different parts of plant .

D. Nutrients are exported from photosynthetic leaves to all parts of plant .

Answer: A

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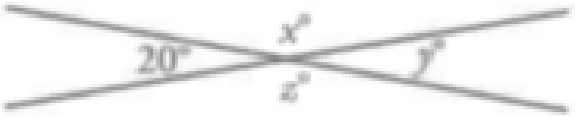
34. What is $x - y$?



A. Bile stones in thee gall bladder

B. Food in the small intestine

C. Deposition of calcium oxalate in kidney

D. Calcium phosphate renal stones

Answer: C

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35. Read the following statements and identify the correct ones regarding polysaccharides.

1. Polysaccharides are made of many sugars joined together .

2. Cellulose is a polysaccharide made of less than 10 monomeric units .

3. Polysaccharides are found as a part of the acid insoluble pellet.

4. In a polysaccharide chain, the right end is called reducing end and the left end is called non-reducing end .

A. All are correct

B. All except 2

C. Only 2 and 4

D. Only 2

Answer: B

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36. Which one of the following four glands is correctly matched with the accompanying description ?

A. Thyroid - Hyperactivity in young children cause Cretinism

B. Thymus - starts undergoing atrophy after puberty

C. Parathyroid - secretes parathormone , which promotes movement of calcium ions from blood into bones during calcification

D. Pancreas - Delta cells of islets of Languages secrete a hormone which stimulates glycolysis in liver

Answer: B

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37. Which of the following is a reason for the greater biological diversity of tropical regions ?

(a) Tropical latitudes have remained almost undisturbed

for millions of years.

(b) Tropical environments are less seasonal, relatively more constant and predictable.

(c) More solar energy is available in the tropics, resulting in high productivity.

(d) All of these

A. 1 and 3

B. 2 and 3

C. 1 ,2 and 4

D. 1,3 and 4

Answer: D

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38. Which of the following are incorrect as a criterion for the essentiality of an element .

i. If the concerned element is deficient another element can fulfil the need of it

ii. The plants would complete their life cycle irrespective of the absence of deficiency of the elements.

iii. The elements have indirect involvement in the metabolism of plants .

iv.The elements must be absolutely necessary for supporting normal growth and reproduction.

(a) i ,ii ,iii ,iv

(b) i,ii

(c) i, ii, iii

(d) ii , iii

A. i ,ii ,iii ,iv

B. i,ii

C. i, ii, iii

D. ii , iii

Answer: C

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39. According to Darwin, organic evolution proceeds in which of the following orders?

(a) Overproduction, variations, constancy of population size , natural selection

(b) variations, constancy of population size , Overproduction, natural selection

(c) Overproduction, constancy of population size

,variations, natural selection

(d) variations, natural selection ,Overproduction, constancy of population size

A. Overproduction, variations, constancy of population size , natural selection

B. variations, constancy of population size , Overproduction, natural selection

C. Overproduction, constancy of population size ,variations, natural selection

D. variations, natural selection ,Overproduction, constancy of population size

Answer: C

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40. Meiosis and mitosis are found to be the two types of cell division . A cell is observed to have 50 chromosomes in its nucleus during interphase before entering S-phase . How many chromosomes will it have after undergoing division by the two - division process ?

	Meiosis	Mitosis
1	100	25
2	50	50
3	50	100
4	25	50

A. 1

B. 2

C. 3

D. 4

Answer: D

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41. Which of the following statements are correct ?

1. The hormone responsible fore maintaining the diurnal rhythm of the body is secreted by a gland situated on the dorsal side of the forebrain .

2. Exophthalmic goitre is characterized by protrusion of eyeballs , weight loss , enlargement of the thyroid gland and decreases basal metabolic rate .

3. Addison's disease occurs due to decreased production of hormones from the outer part of the adrenal gland.

4. Hyper secretion of parathormone cause an increase in the deposition of calcium in bones .

A. 1, 2 and 3

B. 2, 3 and 4

C. 1 and 3

D. 2 and 4

Answer: C

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42. John works as a ground staff at a military airport . While monitoring the test flight of a jet plane , he accidentally stand too close the engine and the loud noise renders him deaf. This permanent damage to his hearing is possible when the sound level is

A. 50 dB or more

B. 100 dB or less

C. 150 dB or more

D. 10 dB or less

Answer: C

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43. Match Column-I with Column-II

Column-I	Column-II
(A) $CaOCl_2$ (Oxidation state of Cl)	(p) + 6, + 6
(B) $S_2O_3^{2-}$ (Oxidation state of S)	(q) + 1, –1
(C) NH_4NO_3 (Oxidation state of N)	(r) Peroxy linkage is present
(D) H_2SO_5 and $H_2S_2O_8$ (Oxidation state of S)	(s) –3, + 5
(E) $K_2Cr_2O_7$, K_2CrO_4 (Oxidation number of Cr)	(t) –2, + 6

A. 1 - ii , 2 - iii , 3 - I , 4- iv

B. 1 - iv , 2 - ii , 3 - i , 4- iv

C. 1 - iii , 2 - iv , 3 - i , 4- ii

D. 1 - ii , 2 - iv , 3 - i , 4- iii

Answer: D

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44. In which type of natural selection , individuals at both extremes of the distribution are rejected ?

A. Stabilizing selection

B. Directional selection

C. Diversifying selection

D. Disruptive selection

Answer: A

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45. Read the following statements regarding diploid cell and identify the INCORRECT one.

I. It can undergo a meiotic divisions to allow growth to occur .

II . It can undergo a mitotic divisions to rejuvenate a tissue.

III. It can undergo a reduction division to form haploid cells.

IV. It is the one that possesses two complete sets of chromosomes .

A. All except I

B. Only II

C. Only I and II

D. Only III and IV

Answer: B

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46. The hormone which regulates the growth of mammary gland and formation of milk in them is secreted by

A. The gland attached to the hypothalamus by a stalk

B. The gland situated at the base of diencephalon

C. The gland situated near the trachea

D. The gland situated near the aorta

Answer: A

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47. A person works in a silicone manufacturing industry for thee past 20 years. Since a few years he has stated feeling quite breathless and has cough all the time . His doctor says that this is because of his occupation as he is exposed constantly to silica dust . What must have been the size of the particles to cause such an issue ?

A. PM 3.5

B. PM 2.75

C. PM 5

D. PM 2.5

Answer: D

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48. Consider the following statements . Apical dominance in plants

I. Allows plant growth

II. Retards the growth of lateral buds

III. Enhances the growth of lateral buds.

Which of these statement is / are correct ?

A. I alone

B. II alone

C. III alone

D. I and II

Answer: D

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49. Choose the connotations of the the theory of special creation .

(i) All living organisms that we see today were created as such .

(ii) First from of life arose slowly through evolutionary forces from non-living molecules.

(iii) Earth is about 4000 years old.

(iv) Diversity has always been the same since creation and will remain thus in future.

A. (i) and (ii)

B. (i) ,(iii) and (iv)

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

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

Answer: B

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50. Read the statements below and identify the one that will not help in increasing the efficiency of gaseous

exchange in the alveoli .

A. The blood capillaries and alveoli have a large total surface area.

B. The blood flow is slowed as it passes through the pulmonary capillaries .

C. The thickness of the respiratory membrane is increased

D. The walls of the alveoli and capillaries are very thin

Answer: C

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51. Given below are the steps involved in oogenesis . Arrange them in proper sequence and select the correct option.

1. Formation of primary follicle due to development of granulosa cells.

2 Division of oogonia and formation of the primary oocyte.

3. Formation of follicles having antrum .

4. Formation of secondary follicles.

5. An unequal division leading to the formation of secondary oocyte i.e. ovum and the first polar body .

A. 1, 3 ,4 ,2 ,5

B. 2 ,1 ,4, 3, 5

C. 3, 1 ,2 ,4, 5

D. 1, 5, 3, 2 ,4

Answer: B

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52. Which of the following shows the correct sequence of steps involved in breeding a new genetic variety of a crop?

(i) Selection and testing of superior recombinants

(ii) Germplasm collection

(iii) Cross hybridisation among selected parents

(iv) Evalution and selection

(v) Testing, relese and commercialisation of cultivars

A. Cross hybridization $\rightarrow$ Collection of variability $\rightarrow$ Testing of superior recombinants $\rightarrow$ Commercialisation of new cultivars

B. Collection of variability $\rightarrow$ Cross hybridization $\rightarrow$ Testing of superior recombinants $\rightarrow$ Commercialisation of new cultivars

C. Collection of variability $\rightarrow$ Testing of superior recombinants $\rightarrow$ Cross hybridization $\rightarrow$ Commercialisation of new cultivars

D. Cross hybridization $\rightarrow$ Testing of superior recombinants $\rightarrow$ Collection of variability $\rightarrow$ Commercialisation of new cultivars

Answer: C

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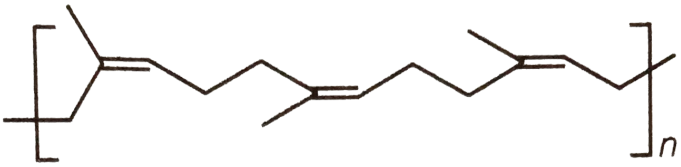
53. Identify the polymer given below



A. a - ii , b - iv , c - iii , d - i

B. a - i , b - iv , c - iii , d - ii

C. a - iii , b - iv , c - i , d - ii

D. a - iv , b - i , c - ii , d - iii

Answer: B

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54. Name the chronic respiratory disroder caused maninly by cigarette smoking

A. Asthma

B. Respiratory acidosis

C. Emphysema

D. Pneumonia

Answer: C

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55. Which of the following statements are incorrect ?

1.The longest phase of the menstrual cycle is the follicular phase while the shortest phase is the ovulatory phase.

2.when blastulation occurs ,the uterus is the luteal phase with a well-developed endometrium

3. The formation of the haploid second polar body occurs

just before ovulation.

4.permanent cessation of menses is an indication of pregnancy .

A. 1,2,3,and 4

B. 3 and 4

C. 2,3 and 4

D. 2,1 and 4

Answer: C

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56. Match the plant with the agent of pollination.

Plant	Agent of pollination
I. Yucca	A. Wind
II. Water Lily	B. Water
III. Corn	C. Moth
IV. Vallisneria	D. Insect

A. I - C , II - A , III - D , IV - B

B. I - C , II - D , III - A , IV - B

C. I - C , II - B , III - D , IV - A

D. I - C , II - A , III - B , IV - D

Answer: B

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57. Which of these modification of stem is incorrect ?

A. A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots is found in a aquatic plants like pistia and Eicchornia.

B. In banana , pineapple and chrysanthemum, the lateral branches originate from the basal and underground portion of the main stem, grow horizontally beneath the soil and then come out obliquely upward giving rise to leafy shoots.

C. In plants like mint and jasmine a slender lateral branch arises from the base of the main axis and

after growing aerially for some time arch downwards to touch the ground.

D. Axillary buds of stems may also get modified into woody , straight and pointed thorns which are found in many plants such as cucumber and pumpkin.

Answer: D

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58. A DNA molecule having labelled thymidine in one of its strand is allowed to replicate in a radioactive medium. Calculate the number of strands with labelled thymine in the DNA after three successive divisions.

A. 15

B. 13

C. 3

D. 16

Answer: A

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59. The process of secretion of milk from the mammary glands of

human female is

A. (iv) ,(iii) ,(v) ,(i) & (ii)

B. (iii) ,(i) ,(v) ,(ii) & (iv)

C. (iii) ,(i) ,(v) ,(iv) & (ii)

D. (iv) ,(iii) ,(i) ,(v) & (ii)

Answer: C

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60. Identify the correct pair of genus and family

	Genus	Family
(I)	Homo	Primata
(II)	Musca	Diptera
(III)	Mangifera	Sapindales
(IV)	Triticum	Poaceae

(a) I

(b) II

(c) III

(d) IV

A. I

B. II

C. III

D. IV

Answer: D

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61. Which of the following is incorrect pairing of plant and the characteristic ?

A. Variation in the length of filaments within a flower : Salvia

B. Polycarpellary syncarpous gynoecium : Tomato

C. Ovary is one - charmbered but it becomes two chambered due to formation of a false septum : Argemone

D. The gynoecium occupies the highest position while the other parts are situated below it : Guava

Answer: D

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62. A DNA sample is 13.6 nm long . It has 10% cytosine molecules calculate the number of weak hydrogen bonds in the given sample.

A. 88

B. 112

C. 80

D. 120

Answer: A

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63. Read the statements given below . Identify which of them are true and which of them are false and select correct option.

1. An IUD can be inserted by a lady herself into the uterus through her vagina.

2. IUDS increase phagocytosis of sperms in the fallopian

tube.

3 Copper ions suppress sperm motility and fertilizing capacity.

4. Hormone releasing IUDs prevents ovulation.

(a) 1 - True , 2 - True , 3 - False , 4 - False

(b) 1 - False , 2 - False , 3 - True , 4 - True

(c) 1 - True , 2 - False , 3 - True , 4 - False

(d) 1 - False , 2 - True , 3 - False , 4 - True

A. 1 - True , 2 - True , 3 - False , 4 - False

B. 1 - False , 2 - False , 3 - True , 4 - True

C. 1 - True , 2 - False , 3 - True , 4 - False

D. 1 - False , 2 - True , 3 - False , 4 - True

Answer: B

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64. Which of the following set of plants . Vegetatively propagates through runners ?

A. Mint, lawn grass , onion

B. Colocasia , mint , sweet potato

C. Colocasia , onion , Oxalis

D. Mint ,lawn grass , Oxalis

Answer: D

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65. Inner layer of pericarp is hard and stony in

A. Mangifera indica and Cocos nucifera

B. Mangifera indica and Phoenix dectylifera

C. Pheonix dectylifera and Cocos nucifera

D. Pheonix dectylifera and Cucumis sativa

Answer: A

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66. Leucine in one of three amino acids which are coded by 6 codons. The codons that code leucine are CUU, CUC, CUA, CUG, UUA, UUG How may minimum types of t RNA will be required for reading all codons of leucine ?

A. 1

B. 2

C. 4

D. 6

Answer: B

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67. Select the incorrect statement .

A. STDs are reported to be very high among persons in the age group in the age group of 15-24 years.

B. MTP has a significant role in decreasing the population though it is not meant for that purpose.

C. Females infected with STD may often be asymptomatic and hence, may remain undetected for long.

D. The reasons for infertility cannot be immunological.

Answer: D

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68. State whether the following statements are true of false regarding androecium .

I. The anther of all angiosperms has four theca.

II. The outermost layer of the microsporangium is the tepetum.

III. The distal end of the filament is attached to the stamen.

IV. Pollen grains of the same species differ from each other in their morphologies.

A. 1 - True , 2 - True , 3 - True , 4 - False

B. 1 - False , 2 - False , 3 - False , 4 - True

C. 1 - False , 2 - False , 3 - True , 4 - False

D. 1 - True , 2 - False , 3 - False , 4 - True

Answer: C

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69. Select the incorrect statement.

A. Phloem of gymnosperms have albuminous cells and sieve cells

B. Initiation of lateral roots and vascular cambium during the secondary growth takes place in pericycle

C. The abaxially placed palisade parenchyma in a dicot leaf is made up of elongated cell , which are arranged vertically and parallel to each other.

D. The cambial ring in dicot stem cuts off new cells, those cut off towards pith. Mature into secondary xylem and the cells cut off towards periphery mature into secondary phloem.

Answer: C

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70. Which of the following can be used to insert the recombinant DNA into the animal cell?

A. Gene gun

B. Disarmed pathogen

C. Cloning vector

D. Microinjection

Answer: D

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71. Identify the correct statement about fertilization.

I. Pollen grain germinates on the stigma.

II. The filiform apparatus guides the pollen grain to the egg.

III. The micropyle doesn't allow entry of male gametes .

IV Pollen pistil interaction determines the promotion or inhibition of pollen.

A. I and IV

B. I and II

C. II and IV

D. II and III

Answer: D

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72. Match the columns given below correctly.

Types of wood	Description
1. Early wood	i. Has narrow vessels.
2. Late wood	ii. Dead elements with highly lignified walls
3. Heartwood	iv. Vessels with wider cavities.
4. Sapwood	iv. Lighter in colour.

A. 1 - ii , 2 - iv , 3 - iii , 4- i

B. 1 - iii , 2 - i , 3 - ii , 4- iv

C. 1 - iii , 2 - ii , 3 - iv , 4- i

D. 1 - i , 2 - iii , 3 - iv , 4- ii

Answer: B

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73. In EcoRI, R is stand for

A. strain RY 13

B. Stain Rd

C. Species RY 13

D. Species Rd

Answer: A

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74. Prolonged use of anabolic steroids in males can lead to

A. decrease in the size testis and prostate gland

B. increase in the size testis and prostate gland

C. decrease in the size testis but increase in the size of prostate gland.

D. increase in the size testis but decrease in the size of prostate gland.

Answer: C

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75. Which of the following set of plant shows autogamy ?

A. Viola and Rose

B. Zostera and Rose

C. Zostera and Oxalis

D. Viola and Oxalis

Answer: D

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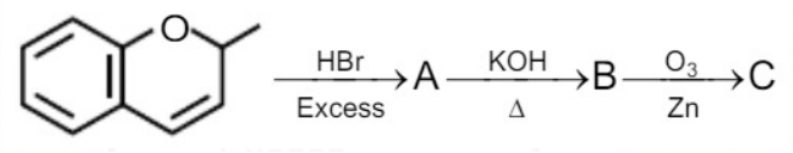
76. Find out the correct statement regarding this question



A. Light is a limiting factor in the region A .

B. Region C represents that rate of photosynthesis is not increased further by increasing light intensity because some other factors become limiting.

C. Point D represents the intensity of light at which some other factor become limiting.

D. The rate of photosynthesis does not depend upon light intensity but depends upon light duration.

Answer: D

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77. pBR322 has restriction sites for many restriction endonucleases. Which of these enzymes acting on pBR322 is not correctly matched with its source ?

I. Pvul : Providencia vulgaris.

II. Clal: caryophanon latum.

III. SalI : Streptomyces albus

IV. PstI: Proteus stuarti

A. I and II

B. II and IV

C. I and IV

D. II and III

Answer: C

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78. The cook Mary Mallon was a carries of which of the following diseases ?

A. The disease caused by Salmonella typhi

B. The disease caused by streptococcus penumoniae.

C. The disease caused by Staphylococcus aureus.

D. The disease caused by Treponema pallidum.

Answer: A

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79. How many cells present in the embryo sac immediately after pollen tube ruptures within the embryo sac ?

A. 10

B. 7

C. 8

D. 9

Answer: D

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80. Which of the following statement is / are incorrect ?

(i) Green light falling in the range of wavelength 500 -580 nm is least effective for photosynthesis.

(ii) In non - cyclic photophosphorylation, the electron expelled from the reaction centre is not cycled back , though its loos is compensated by electrons from the photolysis of water .

(iii) Chl a , Chl b , carotenoids , and xanthophylls are insoluble in organic solvents.

(iv) 400-700 nm light is used in photosynthesis also known as PAR.

(v) Red light is the most effective for photosynthesis.

A. (iv) and (v)

B. (iii) and (v)

C. (ii) and (v)

D. (iv) only

Answer: D

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81. Which of the following products of genetic engineering are not correctly matched with their use ?

A. Tissuse Plasminogen Activator : Breaks blood clot

B. Interferons : Cancer treatment

C. Enzyme DNAse: Helps in cell division and repair of tissues

D. Humulin : To treat insulin dependent diabetes

Answer: C

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82. Select the correct sequence of events in secondary treatment of sewage.

A. Floc formation $\rightarrow$ aerobic digestion $\rightarrow$ settling $\rightarrow$ anaerobic digestion

B. Aerobic digestion $\rightarrow$ floc formation $\rightarrow$ settling $\rightarrow$ anaerobic digestion

C. Floc formation $\rightarrow$ aerobic digestion $\rightarrow$ anaerobic digestion $\rightarrow$ settling

D. anaerobic digestion $\rightarrow$ floc formation $\rightarrow$ aerobic digestion $\rightarrow$ settling

Answer: A

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83. Which of the following organic acid is the substrate for the step in which GTP is formed during Kreb's cycle ?

A. alpha - ketoglutaric acid.

B. Succinyl - Co - A

C. Citrate.

D. Acetyl CoA

Answer: B

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84. Which of the following statements will be CORRECT about a vertebrate this has a complete four - chambered

heart ?

A. these are warm blooded

B. it shows double circulation

C. it has pulmonary respiration

D. all of the above

Answer: C

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85. By producing complementary strand for the transcribed mANA results in making ds - mRNA which cannot be translated . Thus leading to silencing of the mRNA. This

technique has proved to be beneficial for controlling nematode infection and increasing the yield n

A. Tomato plant

B. Cotton plant

C. Tobacco plant

D. Soyabean plant

Answer: C

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86. The viruses which are excellent candidates for speciens - specific , narrow spectrum, insecticidal applications are

A. Mainly belonging to the genus Nucleopolyhedrovirus

B. Not suitable for Integrated Pest Management

C. Can cause harm to useful insets as well

D. Can cause soil pollution

Answer: A

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87. Oxidation of one mole of tripalmitin releases

A. 102 mol of carbon dioxide and 98 moles of water

B. 51 mol of carbon dioxide and 49 moles of water

C. 98 mol of carbon dioxide and 102 moles of water

D. 49 mol of carbon dioxide and 51 moles of water

Answer: B

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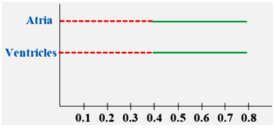
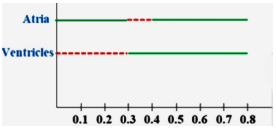
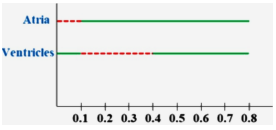
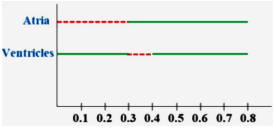
88. Which of the following represents the correct events of a cardiac cycle beginning from the firing of an impulse from the pacemaker of the heart ?

A. 

B. 

C. 

D. 

Answer: C

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