

BIOLOGY BOOKS - NTA MOCK TESTS

NTA NEET SET 59

Biology

 How many of the following organisms show the type of symmetry which is similar tie actinomorphic flowers?
 Spongilla , Adamsia, Gorgonia , pleuroblanchia , Taenia , Cucmaria , Ophiura

B. 6				
C. 5				
D. 4				
Answer: C				
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2. Identify the odd one from the diseases given below.

A. Malarial

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

Answer: D



- **4.** Mark the correct statements about major abiotic factors
- I . Temperature on land veries 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 ightarrow unfavourable conditions ightarrow plasmodium ightarrow favourable conditions ightarrow spore formation

B. Slime moulds $\;
ightarrow\;$ favourable conditions $\;
ightarrow\;$ spore

formation ightarrow unfavourable conditions ightarrow

Plasmodium

C. Slime moulds o favourable conditions o Plasmodium o unfavorable conditions o Spore formation

D. Slime moulds ightarrow Unfavourable conditions ightarrow Spore formation ightarrow favourable conditions. ightarrow Plasmodium

Answer: C



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



- 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
- $\mathsf{B.}\, G < Ov < M < Ot$
- C. $Ov < G < \mathrm{Ot} < M$
- D. G < Ot < M < Ov

Answer: D



- **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 Watch Video Solution** 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 TMY
- D. Ivanowsky: Contagium vivum fluidum

Answer: B



- **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



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

	Non-	Single	Double	
	membrane	lmembrane	membrane bound	
	bound	bound	membrane board	
l.	Ribosome,	Peroxisome,	Mitochondria,	
	Lysosome	Golgi body	Nucleus	
Ш	Ribosome,	Golgi body, Cilia	Mesosomes,	
	Nucleolus	Golgi body, Cilia	Mitochondria	
IIII.	Centriole,	Lysosome,	Mitochondria,	
	Ribosome	Vacuole	Nucleus	
IIV.	Centriole,	Peroxisome,	Mitochondria,	
	Ribosome	Golgi body	Lysosome	

A. I

B. II

C. III

D. IV

Answer: C



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13. Observe the given diagram and 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



- 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



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

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



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.Endosplasmic 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

- **18.** Read the following statements and identify the incorrect one .
 - A. The movements exhibited by macrophages and leucocytes and cytoskeletal elements like microfilaments 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



- 19. Which of the following statements are true?
- 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



- **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



21. Child B is born with the palm as depicted in the figure below. 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

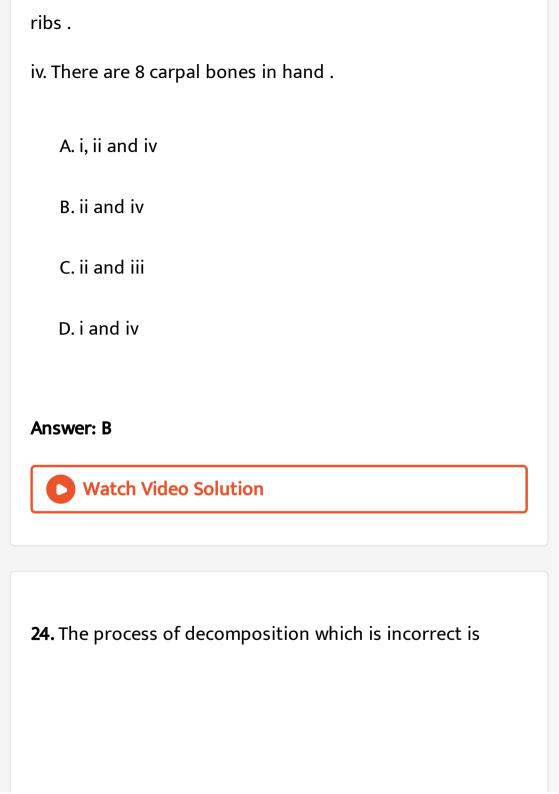
- **22.** Which of the following statements are correct regarding the organelle, lysosome ?
- I. It contains enzymes mostly active in acidic pH.
- II. It is known as the suicidal bag.
- III. These organelles are directly derived from the endoplasmic reticulum .
- IV. It contains water, sap, excretory 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

Answer: B



- **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



- A. Fragmentation: Break down detritus into smaller particles
- B. Leaching: water soluble inorganic nutrients go down into the soi horizon
- C. catabolism: Enzymes degrade detritus into simpler inorganic substances
- D. Humification: Release of inorganic nutrients from humus

Answer: D



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

Answer: C



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

27. For the following columns , match the biomolecules with type and function.



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

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

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

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

Answer: A



28. Match the parts of the brain given in column I with the function performed by then given in column II and select the correct option from the codes given below.

No.	Part	No.	Function
1	The part forming the major part of the brain	i	Maintenance of balance and equilibrium
II	The part situated at the base of the thalamus		Responsible for motor, sensory and intersensory associations
III	The part with a median lobe called the vermis	iii	Has centers for control of activities like respiration, gastric secretions, etc.
IV	The part which connects with the spinal cord		Control of body temperature and the urge for eating and drinking

A.
$$I-ii, II-iii, III-iv, IV-ii$$

B.
$$I-ii$$
, $II-iv$, $III-i$, $IV-iii$

C.
$$I-iii, II-i, III-ii, IV-iv$$

D.
$$I-iv$$
, $II-ii$, $III-iii$, $IV-i$

Answer: B



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29. Match the type of diversity with its correct example



Answer: B



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

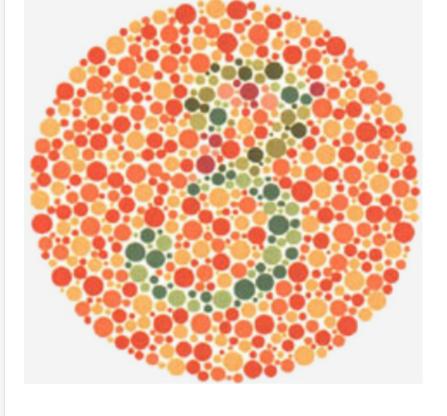
- 1. Pteridophytes which are heterosporous : Selaginella , salvinia
- 2. Gymnosperms with branched stem: Pinus, Cedrus
- 3. Algae with haplo diplontic life cycle : Ectocarpus, polysiphonia
- 4. Bryophytes with protonema stage : polytrichum , sphagnum
 - A. 1, 3
 - B. 2, 4
 - C. 1,2,3,4
 - D. 1,3,4

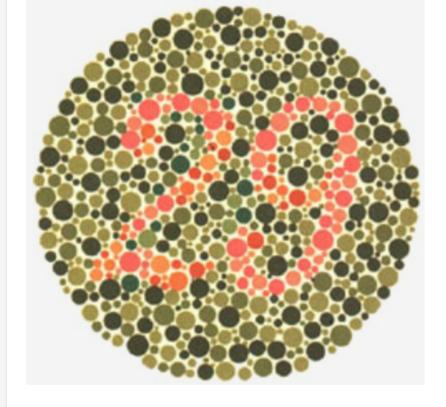
Answer: C



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31. 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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32. 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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33. 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 stepes 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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34. 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

Answer: B



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35. 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 plants of plant .

Answer: A



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36. Observe the following X-Ray of the abdomen. What does it depict ?



- 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



- **37.** 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, thee 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



38. 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



- **39.** Select the reasons why tropical regions have more biodiversity than temperate regions .
- 1. Tropical latitudes have remained relatively undisturbed for millions of years .
- 2. Temperate environments, unlike tropical ones , are less seasonal , relatively more constant and predictable .
- 3 . Temperate regions were subjected to frequent glaciations in the past.
- 4. There is more solar energy available in the tropics which contributes to higher productivity .
 - A. 1 and 3
 - B. 2 and 3
 - C. 1,2 and 4

Answer: D



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40. 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

Answer: C



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41. 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

Answer: C



42. Meiosis and mitosis are found to be the tow 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	$\operatorname{Mitosis}$
1	100	25
2	50	50
3	50	100
4	25	50

A. 1

B. 2

C. 3

D. 4

Answer: D

43. 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 thee 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 ti 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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44. 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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45. There were four dormant seeds with their own reasons of dormancy . Help them grow by breaking their dormancy .



- 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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46. 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

- **47.** Read the following statements regarding diploid cell and identify the INCORRECT one.
- I. It can undergo a mitotic divisions to allow growth to occur.
- II. It can undergo a mitotic divisions to repair a cell.

III. It can undergo a reduction division ti from haploid cells.

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

- A. All except II
- B. Only II
- C. Only I and II
- D. Only III and IV

Answer: B



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- **48.** 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



49. 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



50. Consider the following statements . Apical dominance in plants

I. Allows plant growth

II. Regards the growth of lateral buds

III. Which of these statements is /are correct?

Which of these statement is / are correct?

A. I alone

B. II alone

C. III alone

D. I and II

Answer: D



51. 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



- **52.** 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



- **53.** 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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54. What are the main steps in breeding a new genetic variety of a crop ?

A. Cross hybridization $\,
ightarrow\,$ Collection of variability $\,
ightarrow\,$

Testing of superior recombinants ightarrow

Commercialisation of new cultivars

B. Collection of variability $\;
ightarrow\;$ Cross hybridization $\;
ightarrow\;$

Testing of superior recombinants ightarrow

Commercialisation of new cultivars

C. Collection of variability ightarrow Testing of superior recombinants ightarrow Cross hybridization ightarrow

Commercialisation of new cultivars

D. Cross hybridization ightarrow Testing of superior recombinants ightarrow Collection of variability ightarrow

Commercialisation of new cultivars

Answer: C



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55. Identify the correct match from the column 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



56. Cigarette smoking is considered injurious to health. Which of the following chronic respiratory condition can the smoking habit lead to ?

- A. Asthma
- B. Respiratory acidosis
- C. Emphysema
- D. Pneumonia

Answer: C



- **57.** 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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58. 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

Answer: B

59. 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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60. A DNA molecule having labelled thymidine in one of its strand is allowed ti 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



- **61.** The correct pathway of milk ejection from mammary glands is
- (i) Sensory impulses are transmitted through somatic

nerve from the nipples to the mother's spinal cord and then to her hypothalamus.

(ii) Expulsion of milk from alveoli into the ducts.

(iii) Suckling action of baby on the breast.

(iv) Contraction of myoepithelial cells.

(v) Secretion of oxytocin.

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

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

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

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

Answer: C



62. 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

Answer: D



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

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

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



64. 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



65. 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

Answer: B



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- **66.** 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



- 67. Endocarp is hard and stony in the drupe of
 - A. Mangifera indica and Cocos nucifera
 - B. Mangifera indica and Phoenix dectylifera
 - C. Pheonix dectylifera and Cocos nucifera
 - D. Pheonix dectylifera and Cucumis sativa

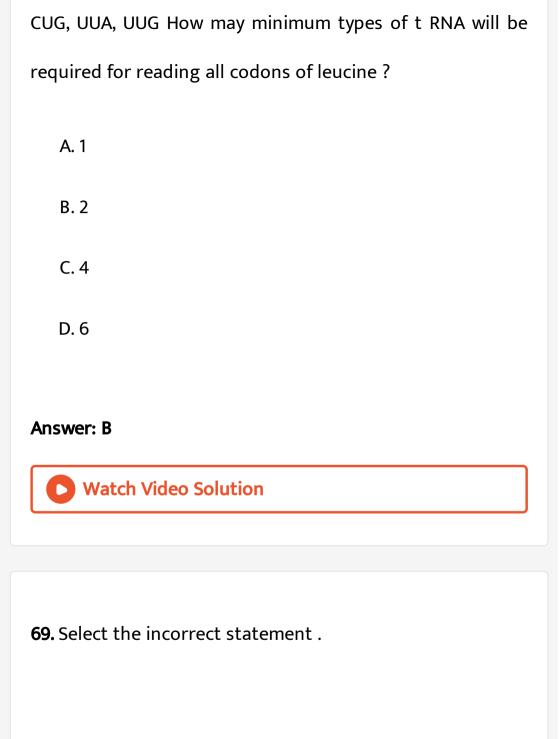
Answer: A



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68. Leucine in one of three amino acids which are coded by

6 codons. The codons that code leucine are CUU, CUC, CUA,



- 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



70. 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

71. 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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72. Which of the following process is used to insert recombinant DNA directly into the nucleus of the animal cell?

- A. Gene gun
- B. Disarmed pathogen
- C. Cloning vector
- D. Microinjection

Answer: D



- 73. 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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74. 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.

Answer: B



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75. In EcoRI, R is stand for

- A. strain RY 13
- B. Stain Rd
- C. Species RY 13
- D. Species Rd

Answer: A



76. 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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77. 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 Watch Video Solution** 78. Observe the diagram and state the incorrect statement regarding it?

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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79. 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. Sall : Streptomyces albus
IV. Pstl: Proteus stuarti
A. I and II
B. II and IV
C. I and IV
D. II and III
Answer: C
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80. 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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81. 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



- **82.** Which of the following statement is / are incorrect?
- (i) Green light falling in the range of wavelength 500 0 -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



83. 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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84. Select the correct sequence of events in secondary treatment of sewage.

A. Floc formation $\;
ightarrow\;$ aerobic digestion $\;
ightarrow\;$ settling

 $\, \rightarrow \,$ anaerobic digestion

B. Aerobic digestion $\;
ightarrow\;$ floc formation $\;
ightarrow\;$ settling

ightarrow anaerobic digestion

C. Floc formation ightarrow aerobic digestion ightarrow anaerobic digestion ightarrow settling

D. anaerobic digestion ightarrow floc formation ightarrow aerobic digestion ightarrow settling

Answer: A



85. 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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86. Which of the following statements will be surely CORRECT about a vertebrate this has a complete four -

chambered heart ?
I. The animal shows pulmonary respiration
II. The animal has left systemic arch (aorta curved to left).
IV. The animal can maintain constant body temperature .
A. I,II III and IV
B. I, II and IV
C. I and II
D. II and IV
Answer: C

87. 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



88. 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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89. Oxidation of one mole of tripalmitin releases

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

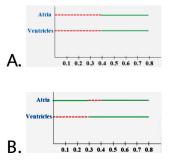
- B. 51 mol of carbon dioxide and 49 moles of water
- C. 98 mol of carbon dioxide and 102 moles of water
- D. 49 mol of carbon dioxide and 51 moles of water

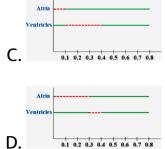
Answer: B



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90. 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 ?





Answer: C

