

# **BIOLOGY**

# **BOOKS - NTA MOCK TESTS**

# **NEET MOCK TEST 12**

# Biology

- 1. Natural parthenogenesis occurs in
  - A. Frog to form female
  - B. Honeybee to produce drones
  - C. Cockroach
  - D. Grapes

#### Answer: B



ward vedaa calamaa

## 2. Select the incorrect match.

Each lobule
contains one to
three highly coiled
seminiferous
Seminiferous tubules in which
tubules sperms are
produced. These
open into the vasa
efferentia through
rete testis.

A.

The fallopian tube is about 10-12 cm long and extends from the periphery of each Fallopian ovary to the uterus. tube The oviducts (fallopian tubes), uterus and vagina constitute the female accessory ducts.

В.

At least 60% sperms
must have normal shape
and size and for at least
40% of them must show
vigorous motility. The
seminal plasma along
with the sperms
constitute the semen.

C.

Primary follicles get surrounded by more layers of granulosa cells to become secondary follicles. In Secondary the secondary ovarian follicle theca layer is organised into an inner theca interna and an outer theca externa.

D.

# Answer: D



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**3.** All of the following statements are correct about active immunity, except

A. It is slow and takes time to give its full effective response.

- B. Memory cells are formed.
- C. Antibodies are not formed during primary response.
- D. Exposure of antigen is a pre-requisite for the development of active immunity.

#### **Answer: C**



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**4.** Which of the following variety is resistant to white rust?

A. Parbhani kranti B. Himgiri C. Pusa Komal D. Karan rai Answer: D **Watch Video Solution** 5. Out-breeding is the breeding of unrelated animals. It includes A. Inbreeding only B. Inbreeding + Cross-breeding C. Out-crossing + Cross-breeding D. Out-crossing + Cross-breeding+ Interspecific hybridization Answer: D **Watch Video Solution** 

6. During which stage of sewage treatment micrones are used
A. Primary treatment
B. Secondary treatment
C. Tertiary treatment
D. All of these
Answer: B
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7. What is insertional inactivation?
A. Inactivation of the host cell.
A. Inactivation of the host cell.  B. Inactivation of plasmid

D. Inactivation of ori site
Answer: C
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8. ELISA is based on the principle of
A. Antigen-antibody interaction
, u , u i i gen an i i se a ci e i i
B. Antigen-antigen interaction
C. Antibody-antibody interaction
D. None of these
Difference of these
Answer: A
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9. The term 'niche' of a species refers to

- A. Specific place
- B. The specific place where an organism lives and the role it plays
- C. Competitive power of an organism
- D. Specific function of an organism

#### **Answer: B**



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- **10.** Introduction of exotic species in an area can have deleterious effects on biological communities by
  - A. Displacing native species
  - B. Preying on native species
  - C. Competing with native species for food/shelter
  - D. All of the above

#### Answer: D

11. Which of the following will result in cultural eutrophication?

A. It is the natural aging of a lake by nutrient enrichment of its water.

B. It is caused due to pollutants arising as a result of human activities

C. It is caused due to the release of organic nutrients

like effluents from the industries and homes.

D. It is caused due to the release of heated effluents.

#### **Answer: B**



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**12.** Which of the following is related to integrated waste water treatment process within a natural system?

A. The system created by Ramesh Chandra Dagar

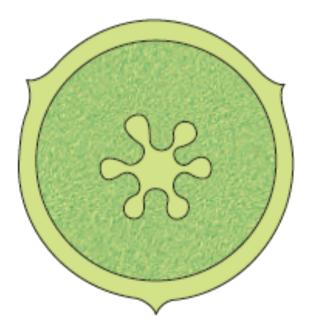
- B. Jhum cultivation
- C. Formation of polyblend
- D. Friends of Arcata Marsh (FOAM)

#### **Answer: D**



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# 13. The type of placentation shown in the given diagram is



A. Axile B. Parietal C. Free central D. Poales, floral **Answer: C** Watch Video Solution 14. Plasmids present in the bacterial cells are: A. Circular double stranded helical DNA molecules B. Circular double stranded helical RNA molecules C. Linear double stranded helical RNA molecules D. Linear double stranded helical DNA molecules Answer: A **Watch Video Solution** 

<b>15.</b> From the point of evolutionary complexity, which one of the following is most advanced?
A. Chlamydomonas
B. Funaria
C. Selaginella
D. Pinus
Answer: D  Watch Video Solution
Watch Video Solution
Watch Video Solution  16. Pseudopopdia are found in and help in

D. Paramecium, locomotion

#### **Answer: C**



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17.

Phylum Level of organisation Digestive system Respiratory sy Aschelminthes Α absent Complete

Echinodermata Present Organ system B

 $\mathbf{C}$ 

D

Platyhelminhes Incomplete Organ Annelida Organ system Incomplete

Select the option with correct identification of A, B, C, and D.

A. A - organ, B - Complete, C-Present, D- Absent

B. A - organ system, B - Complete, C - Absent, D - Absent

C. A - organ system, B - Incomplete, C- Absent, D - Present

D. A - organ system, B - Incomplete, C - Present, D - Absent

#### Answer: B



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**18.** Which of the following set correctly represents charcateristics of family Liliaceae?

A. Tricarpellary, trilocular, axile placentation, zygomorphic

B. Tricarpellary, trilocular, parietal placentation, zygomorphic

C. Tricarpellary, trilocular, axile placentation, actinomorphic

D. Bicarpellary, trilocular, axile placentation, actinomorphic

#### **Answer: C**



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**19.** If T.S. of young dicot stem is stained with lodine solution, which of the following region will be stained dark blue?

A. Cortex

B. Pericycle

D. Cambium
Answer: C
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<b>20.</b> In Periplaneta americana, the ventral sclerite is called
A. Pleurite
B. Clitellum
C. Sternite
D. Tergite
Answer: C
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C. Endodermis

21. Identify the incorrect match.

A. Blood group A - Anti-A (Antibodies in plasma)

B. Platelets - Megakaryocytes (Cells that fragment to produce platelets)

C. Lymphocytes - 20-25% (Percentage among WBCS)

D. Granulocytes - Eosinophils, basophils, and neutrophils

#### **Answer: A**



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22. How many of the following functions can be correctly correlated with

loop of Henle ?

A. Reabsorption of nearly all of the essential nutrients.

B. Reabsorption in this segment is minimum.

C. A significant role in the maintenance of high osmolarity of medullary interstitial fluid.

D. Reabsorption of 70-80 percent of electrolytes and water. E. Conditional reabsorption of  $Na^{\,+}$  . A. One B. Two C. Three D. None **Answer: B Watch Video Solution** 23. The enzyme that catalyzes the digestion of food belongs to the class of enzymes A. Transferase B. Hydrolase C. Lyases

D. Ligases
Answer: B
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<b>24.</b> For the stages of the cell cycle, select the correct option.
A. A chromosome is arranged at the equator - Metaphase.
B. Centromere splits and chromatids are separated - Anaphase I.
C. The pairing between homologous chromosomes takes place - Zygotene.
A. A and B

B. A and C

C. B and C

D. A, B and C

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**Answer: B** 

25. Lowering in magnitude of water potential due to dissolution of a solute is called.

- A. Solute potential  $(\Psi_s)$
- B. Pressure potential  $(\Psi_p)$
- C. Turgor pressure
- D. Suction pressure

# Answer: A



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- 26. Excess of manganese may induce the deficiencies of
  - A. Mg
  - B. Iron
  - C. Calcium
  - D. All of these

# **Answer: D**



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# **27.** Regeneration of each RuBP in $C_3$ cycle requires

A. 1 ATP

B. 6 ATP

C. 1 ATP and 1 NADPH+  $H^{\,+}$ 

D. 3 ATP and 2 NADPH+  $H^{\,+}$ 

#### **Answer: B**



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28. Select the incorrect statement.

A. Cytochromes are found in cristae of mitochondria

B. After glycolysis, fate of glucose in mitochondrial matrix is reduction

C. Net gain of ATP in aerobic respiration is 36 ATP

D. There is one step in Kreb's cycle where  $FAD^+$  reduced to  $FADH_2$ 

#### **Answer: B**



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29. Cell wall thickening, protoplasmic modification, and functional specialization are observed in which phase of growth?

A. Phase of cell division

B. Phase of elongation

C. Phase of maturation

D. Phase of growth

Answer: C



**30.** Digestion is considered complete when the substrate is broken into a form that is

A. smaller

B. masticated

C. mixed with gastric juice

D. absorbable

#### **Answer: D**



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**31.** What will be the additional volume of air that a person can expire by a forcible expiration?

A. 500 mL

D. 3000 mL **Answer: B Watch Video Solution** 32. Which of the following statements is incorrect? I. Each Malpighian tubule in cockroach is lined by glandular and ciliated cells. II. Most of the species of cockroach are of no economical importance. III. Fat bodies in cockroach play an important role in reproduction. IV. The cockroach is ammonotelic in the rainy season. A. I, III B. I, III, IV C. III, IV

B. 1100 mL

C. 2300 mL

D. II. IV	D.	II.	IV
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#### **Answer: C**



**Watch Video Solution** 

**33.** Nucleolus usually associates with chromatin (or chromosomes) at a specific site called

A. Nucleolar organiser region (NOR)

B. Chromosome

C. Nucleoplasm

D. Nuclear membrane

# Answer: A



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- **34.** The non-myelinated neurons can be located in
  - A. CNS and somatic nervous system
  - B. CNS and autonomous nervous system
  - C. CNS only
  - D. Autonomous and somatic neural system

## Answer: D



- **35.** Some cells in testis secrete testosterone and the hormone stimulating such cells are released in blood by
  - A. Seminal vesicles
  - B. Testis itself
  - C. Hypothalamus
  - D. Anterior pituitary

# Answer: D **Watch Video Solution 36.** Silencing of a gene could be achieved through the use of: A. RNAi only B. Antisense RNA only C. Both RNAi and antisense RNA D. Single stranded DNA only **Answer: C**



**Watch Video Solution** 

**37.** What is the role of germ pore in pollen grain?

A. Emergence of pollen tube

- B. Emergence of plumule

  C. Emergence of radical

  D. Emergence of hypocotyls

  Answer: A

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  38. Which of the following organisms possesses of
- **38.** Which of the following organisms possesses characteristics of both a plant and an animal?
  - A. Paramecium
  - B. Mycoplasma
  - C. Euglena
  - D. Bacteria

# Answer: C



**39.** Which among the following is a pair of high yielding crop varieties resistant to water stress developed in India?

A. Maize and Sugarcane

B. Jowar and Maize

C. Bajra and Gram

D. Jowar and Wheat

#### Answer: B



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**40.** The Ministry of Environment and Forest has initiated which plan to save major rivers of our country?

A. Ganga action plan

B. Yamuna action plan

D. Both (a) and (b)
Answer: D
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<b>41.</b> Malpighian tubules in Periplaneta americana arein number and
coloured.
A. 50-60, green
B. 50-60, yellow
C. 100-150, green
D. 100-150, yellow
Answer: D
Watch Video Solution

C. Fermentation plan

<b>42.</b> Which amino acid plays a central role in nitrogen metabolism?
A. Glutamic acid
B. $lpha$ -ketoglutaric acid
C. Aspartic acid
D. Aminated keto acid
Answer: A
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<b>43.</b> Major limiting factor for photosythesis in $C_3$ plants is
A. $CO_2$
B. Temperature
C. Light
D. Water

#### Answer: A



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44. Which one of the following is incorrectly matched?

A. Ribozyme - 23s rRNA

B. lacA - Permease

C.  $EST_S$  - Satellite DNA

D. Chromosome 1 - 2968 genes

#### **Answer: B**



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**45.** Select the incorrect information given about the disease commonly caused by these fungal genera: Microsporum, Trichophyton and Epidermophyton.

A. Common symptoms- Appearance of dry, scaly and itchy lesions on various parts of the body.

B. Favourable conditions for disease - In winter and dry conditions.

C. Common areas involved - Skin folds, nails, scalp, groin and between the toes.

D. Mode of infection From soil or by using towels, clothes or even the comb of infected individuals.

#### **Answer: B**



**46.** How many of the following plants have an association with Rhizobium? [Sweet pea, Lentils, Garden pea, Alfalfa, Alnus, Frankia, Soybean, Clover beans]

A. 5

B. 6

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Answer: B	
D. 8	
C. 7	

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- 47. Select the set of incorrect statements from the ones given below.
- A. Plasma is straw coloured and viscous in nature.
- B. Eosinophils are 2-3% of total  $WBC_S$  .
- C. Lymphocytes are the second-most abundant agranulocytes.
- D. Stroke volume is the amount of blood that each ventricle pumps during one minute.
  - A. A, B and D
  - B. C and D
  - C. A and B
  - D. A and D

#### **Answer: B**



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- **48.** Which of the following is not true?
  - A. Virus-free plants can be produced by meristem culture.
  - B. Somaclonal variations may be present in plants produced from callus.
  - C. Somaclonal variations are caused due to recombination during meiosis.
  - D. Cellular totipotency was first demonstrated by F.C. Steward

#### **Answer: C**



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**49.** Which of these ecosystems has the lowest net primary production per square meter?

A. A coral reef

B. An open ocean

C. A grassland

D. A marshy area

#### **Answer: B**



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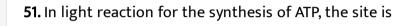
**50.** Which of the following set of hormones are supposed to have intracellular receptors?

A. Estrogen, testosterone, aldosterone

B. Thyroxine, insulin, glucagon

C. Epinephrine, cortisol, ADH

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Answer: A				
<b>○</b> Wate	ch Video S	Solution		



D. Oxytocin, glucagon, insulin

- A. Cytoplasm
- B. Stromal side of the thylakoid membrane
- C. Lumen side of the thylakoid membrane
- D. Inter-membrane space

## Answer: B



<b>52.</b> Archaebacteria can survive better than other bacteria in unfavourable
conditions because of their
A. Food
B. Mesosomes
C. Cell wall
D. Plasmids
Answer: C
Answer: C  Watch Video Solution
Watch Video Solution
Watch Video Solution  53. The element which prevents bursting of the pollen tube and helps in

C. Fe

D. $H_2O$
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**Answer: B** 



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# **54.** RNA Polymerase III transcribe

A. 28S rRNA

B. hnRNA

C. 5.8S rRNA

D. 5S rRNA

### **Answer: D**



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**55.** Select the correct statement from the following.

A. Notochord is found in all chordates. B. Pharynx is perforated by gill slits in non-chordates. C. Hearts is dorsal in birds. D. Both (A) and (C) are correct. Answer: A **Watch Video Solution 56.** Which set of examples belongs to the same phylum? A. Sepia and Laccifer B. Corallium and Leucosolenia C. Ancylostoma and Enterobius D. Balanoglossus and Corvus

Answer: C



<b>57.</b> The entire collection of plants/seeds having all the diverse allelles for
all genes in a given crop in called:
A. Gene pool
B. Germplasm
C. Genome
D. Genotype
American, D
Answer: B
Watch Video Solution
Water video solution
<b>58.</b> An individual with Down's syndrome has copies of $21^{st}$
<b>58.</b> An individual with Down's syndrome has copies of $21^{st}$
<b>58.</b> An individual with Down's syndrome has copies of $21^{st}$
<b>58.</b> An individual with Down's syndrome has copies of $21^{st}$ chromosome.

C.	3
D.	2

**Answer: C** 



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**59.** Radial symmetry is found in

A. Larva of Echinodermates

B. Most of sponges

C. Molluscs

D. None of the above

Answer: D



<b>60.</b> Ciliated epithelia is found in
A. Ileum and bronchioles
B. Bronchioles and oesophagus
C. Fallopian tubes and bronchioles
D. Fallopian tubes and lleum
Answer: C
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<b>61.</b> The connective tissue which connects bones to muscles are called
A. Tendons
B. Ligaments
C. Cartilage
D. Bones

# Answer: A Watch Video Solution

62. The proteins that reproduce within the living cells are termed as

- A. Plasmid
- B. Phages
- C. Prions
- D. Prophage

# **Answer: C**



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**63.** Maximum volume of air that can be exhaled after forceful inhalation, is termed as

A. Total lung capacity B. Vital capacity C. Expiratory capacity D. Functional Residual capacity. **Answer: B Watch Video Solution** 64. Development of sporophyte/embryo from gametophytic tissue without fusion of gametes is A. Apospory B. Apogamy C. Apomixis D. Aposporogamy **Answer: B** 

**65.** Microtubules are cylindrical structures having a and ß tubulin proteins. They are the constituents of which one of the following groups?

- A. Nucleolus, Nucleoid, Nuclear membrane
- B. Centrosome, Spindle fibre, Flagella, Cillia
- C. Mitochordria, Lysosome, Chloroplast, golgi apparatus
- D. Chromosome, chromatid, chromatin

# Answer: B



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**66.** Which of the following is the polymer of a nucleotide?

A. Protein

B. Lipid

C. DNA
D. Carbohydrate
Answer: C
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<b>67.</b> Which type of teeth is absent in a child's dentition?
A. Incisor
B. Canine
C. Premolar
D. Molar
Answer: C
Watch Video Solution

68. In root nodules of leguminous plants, the function of leg-hemoglobin during biological nitrogen fixation is

- A. Convert  $N_2$  to  $NH_3$
- B. Convert  $NH_3$  Nitrite
- C. Transport oxygen for nitrogenase activity
- D. Protect nitrogenase from oxygen

#### Answer: D



- 69. NPP (net primary productivity) is highest in
  - A. Tropical region
  - B. Polar region
  - C. High altitude
  - D. Deep ocean

# **Watch Video Solution** 70. 'T' wave in an ECG represents A. Atrial repolarization B. Atrial depolarization C. Ventricular repolarization D. Ventricular depolarization **Answer: C Watch Video Solution 71.** Which hormone is a potent hyperglycemic hormone? A. Insulin

B. Glucagon C. Parathormone D. Calcitonin **Answer: B Watch Video Solution** 72. Choose the correct option regarding retrovirus A. An RNA virus that can synthesize DNA during infection. B. A DNA virus that can synthesize RNA during infection. C. A ssDNA virus D. A dsRNA virus



**73.** Which of the following changes does not occur during conversions of secondary follicle into tertiary follicle?

- A. Development of antrum
- B. Completion of meiosis II
- C. Differentiation of theca
- D. Enlargement in size

#### **Answer: B**



- 74. Which of the set of two hormones is having different sources?
  - A. GnRH and somatostatin
  - B. Prolactin and thyroid stimulating hormone
  - C. Oxytocin and vasopressin
  - D. Calcitonin and parathormone

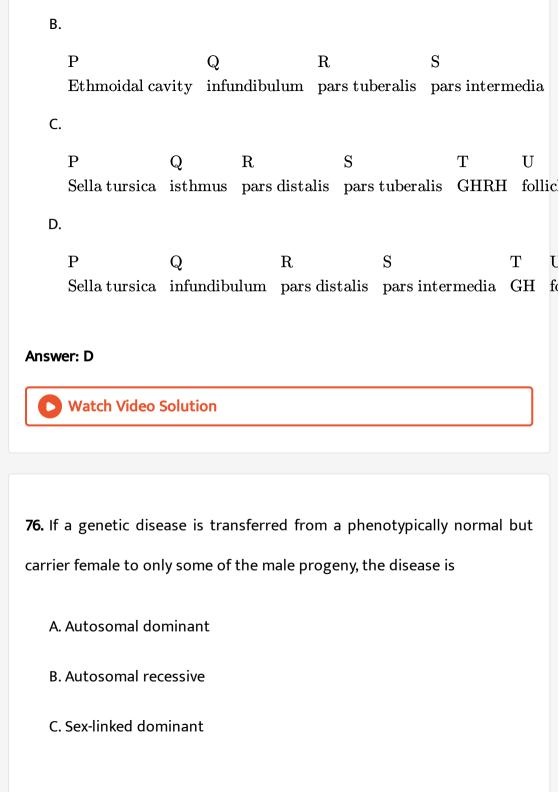
# **Answer: D**



75.	The	pituitary	gland	is	located	in	а	bony	cavity	called
	F	P	and is	atta	ched to I	пурс	thala	mus b	y a stalk	known
as			2		It is	div	ided	anato	mically i	nto an
ader	nohyp	ophysis ar	nd a neu	rohy	pophysis	. Ad	enoh	ypoph	ysis cons	sists of
two	por	tions,	R		and			S_		The
		R		reg	gion	of	p	ituitary	y, pr	oduces
		T_		,	prolact	in	(PRL),	thyro	oid stim	ulating
horn		T_ (TSH),			•			·		
	none		adreno	corti	cotrophi	С	horm	none	(ACTH)	and
gona	mone adotro	(TSH),	adreno (lutein	corti	cotrophi	С	horm	none	(ACTH)	and

A.

P Q R S T
Ethmoidal cavity isthmus pars tuberalis pars intermedia GHR



D. Sex-linked recessive

#### **Answer: D**



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**77.** Who has drawn the same conclusions on evolution like Charles Darwin?

A. Alfred R. Wallace

B. B. Hugo de Vries

C. Hardy S. Weinberg

D. De Lamarck

# **Answer: A**



# **78.** Root cambium is

- A. Primary meristem
- B. Secondary meristem
- C. Intercalary meristem
- D. Apical meristem

#### **Answer: B**



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- 79. (i) Anabaena lives symbiotically with Azolla.
- (ii) Azotobacter is a free-living  $N_2$  fixer in the soil.

Which of the statements given above is/are correct?

- A. (i) Only
- B. (ii) Only
- C. Both (i) and (ii)

D. Neither (i) or (ii)

#### **Answer: C**



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**80.** Which one of the following categories of organisms do not evolve oxygen during Photosynthesis

- A. Red algae
- B. Photosynthetic bacteria
- C.  $C_4$  plants with Kranz anatomy
- D. Blue green algae

# Answer: B



- **81.** Effect on the genetic drift is minimized if
  - A. Population is large
  - B. Emigrating individuals are large in number
  - C. Emigration occurs frequently
  - D. Large segment of a population dies



- **82.** A lake with an inflow of domestic sewage rich in organic waste may result in
  - A. Drying of the lake very soon to algal bloom.
  - B. An increased production of fish due to lot of nutrients.
  - C. Death of fish due to lack of oxygen.
  - D. Increased population of aquatic food web organism.

# Answer: C Watch Video Solution

**83.** Cork cambium results in the formation of cork which becomes impermaeable to water due of the accumulation of

- A. Resins
- B. Suberin
- C. Lignins
- D. Tannins

**Answer: B** 



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**84.** What will be the effect of accumulation of  $K^{\,+}$  ions in guard cells

- A. Water potential increases
- B. Water potential decreases
- C. Loss of turgidity
- D. Solute potential increases

# Answer: B



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- **85.** Which of the following is set of homologous organs showing divergent evolution?
  - A. Thorns of bougainvillea and tendrils of cucurbita
  - B. Forelimbs of horse and wings of insects
  - C. Eyes of octopus and eyes of human
  - D. Flippers of whales and flippers of dolphins



- 86. In myasthenia gravis, antibodies are formed against
  - A. Cholinergic receptors on motor neurons
  - B. Cholinergic receptors on motor end plate
  - C. Acetylcholine
  - D. Adrenergic receptors

### **Answer: B**



- 87. Somaclonal variation occurs during
  - A. Application of colchicine
  - B. Irradiation with gamma rays
  - C. Tissue culture

D. Hybridisation

# Answer: C



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88. A character is controlled by 5 alleles. How many genotypes are possible for this character?

A. 15

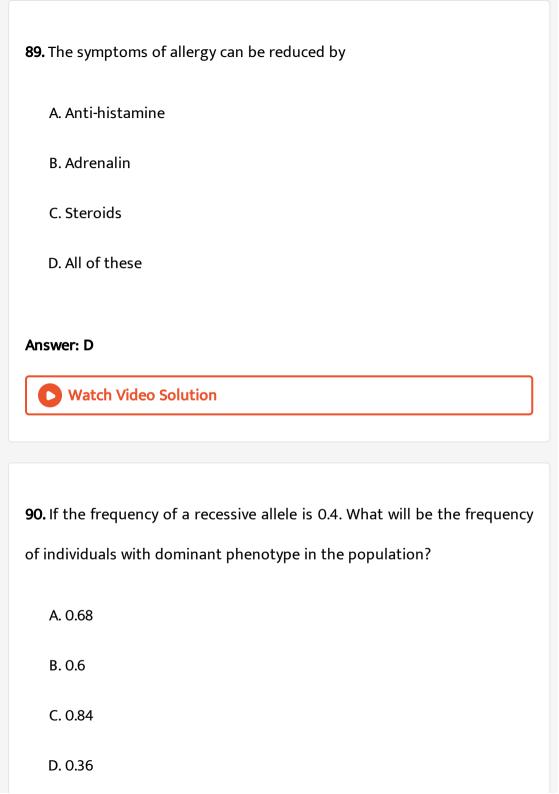
B. 6

C. 12

D. 25

# **Answer: A**





# **Answer: C**

