

## BIOLOGY

### NTA MOCK TESTS ENGLISH

### NTA NEET SET 42

#### Biology

#### 1. Who gave the five-kingdom classification?

A.

1a. Organisms which are autotrophic	Go to 3
1b. Organisms which are heterotrophic	Go to 2
2a. Organisms which have saprophytic nutrition	Kingdom Fungi
2b. Organisms which have holozoic nutrition	Kingdom Animalia
3a. Organisms with well defined nucleus	Kingdom Plantae
3b. Organisms with ill defined nucleus	Go to 4
4a. Organisms with a single cell	Kingdom Protista
4b. Organisms with multiple cells	Kingdom Monera

B.

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D.

**Answer: D**



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**2. The flat horizontal line in between the waves of ECG represent time when**

A. there is no mechanical activity in the heart but there is electrical activity in the heart

B. there is no electrical activity in the heart but there is mechanical activity in the heart

C. there is no mechanical activity in the heart and there is no electrical activity in the heart

D. there is mechanical activity in the heart and there is electrical activity in the heart

**Answer: B**



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3. Which of the following statements are correct about the modes of excretion ?

- A. All bony fishes are ammonotelic.
- B. Aquatic mammals are ureotelic
- C. Insects such as cockroach are ammonotelic.
- D. Tadpole of frog is ureotelic

**Answer: B**



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4. Put the correct symbols in the following statements :

I. The average life span of a crow ..... then the average life span of a parrot .

II. The average life span of a rose plant ..... then the average life span of a rice plant.

III. The average life span of a cow .... than the average life span of a crocodile.

IV. The average life span of a banyan tree .... then the average life span of a banana tree.

A.  $I: ' < ', II: ' < ', III: ' < ', IV: ' > '$

B.  $I: ' > ', II: ' > ', III: ' > ', IV: ' > '$

C.  $I: ' < ', II: ' < ', III: ' < ', IV: ' > '$

D.  $I: ' < ', II: ' > ', III: ' < ', IV: ' > '$

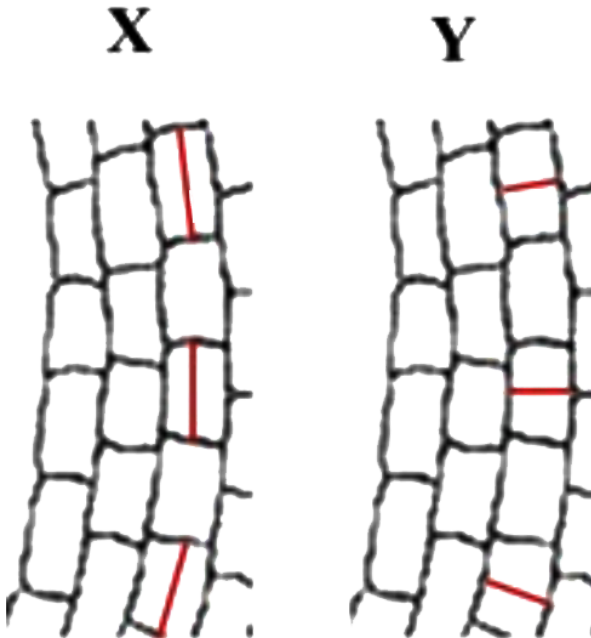
**Answer: D**



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5. During the formation of gametophytes and embryo in angiosperms, the cell undergo two types of cell divisions. The diagram given below is a representation of them. The red lines indicate their plane of division .

What is the correct type of X and Y ?



- A. X is periclinal division , while Y is an anticlinal division
- B. X is anticlinal division , while Y is an periclinal division
- C. B X and Y are periclinal divisions
- D. B X and Y are anticlinal divisions

**Answer: A**



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6. An individual having genotype AaBBccDD will product ..... Types of gametes.

A. 2

B. 4

C. 8

D. 16

**Answer: A**



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7. The first cells to evolve were

- A. anaerobic chemoautotrophs
- B. anaerobic chemoheterotrophs
- C. aerobic chemoautotrophs
- D. aerobic chemoheterotrophs

**Answer: B**



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**8. Majority of plant viruses are transmitted by**

- A. fungi
- B. birds
- C. insects
- D. cattles

**Answer: C**



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9. Parenchyma cells are concerned with

- A. Secretion
- B. Support
- C. Carry oxygen
- D. Storage of surplus food

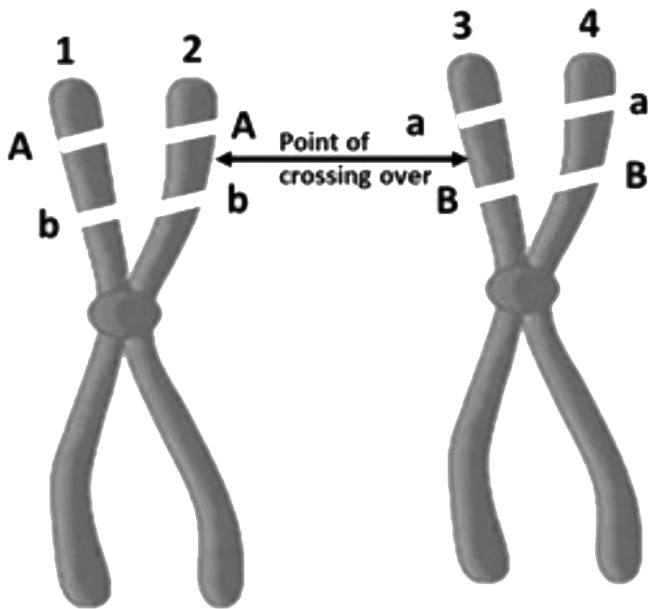
**Answer: D**



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10. Two homologous chromosomes are depicted in the diagram given below. Crossing over occurs between chromatid 2 and chromatid 3 at the point as depicted .





The gametes produced as a result of this crossing over will be

- A. Ab and aB
- B. AB and ab
- C. Ab, AB , ab and aB
- D. Ab , aB and ab

**Answer: C**



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11. In hardy-Weinberg equation, the frequency of heterozygous individual is represented by

A.  $p^2$

B.  $pq$

C.  $2pq$

D.  $q^2$

**Answer: C**



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12. Animals exhibiting adaptations for survival is a

A. Genetic trait

B. Physiological trait

C. Structural trait

D. All of these

**Answer: D**



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**13. Which of the following uses maximum energy ?**

- A. Primary producer
- B. Primary consumers
- C. Secondary consumers
- D. Decomposer

**Answer: A**



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**14.** One Dobson unit is equal to a layer of pure ozone ..... in thickness at standard temperature and pressure .

- A. 1 mm
- B. 0.1 mm
- C. 0.01 mm
- D. 0.001 mm

**Answer: C**



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**15.** The pressure with which we feel the artery hitting our finger when we measure pulse is

- A. The sum of systolic blood pressure and diastolic blood pressure

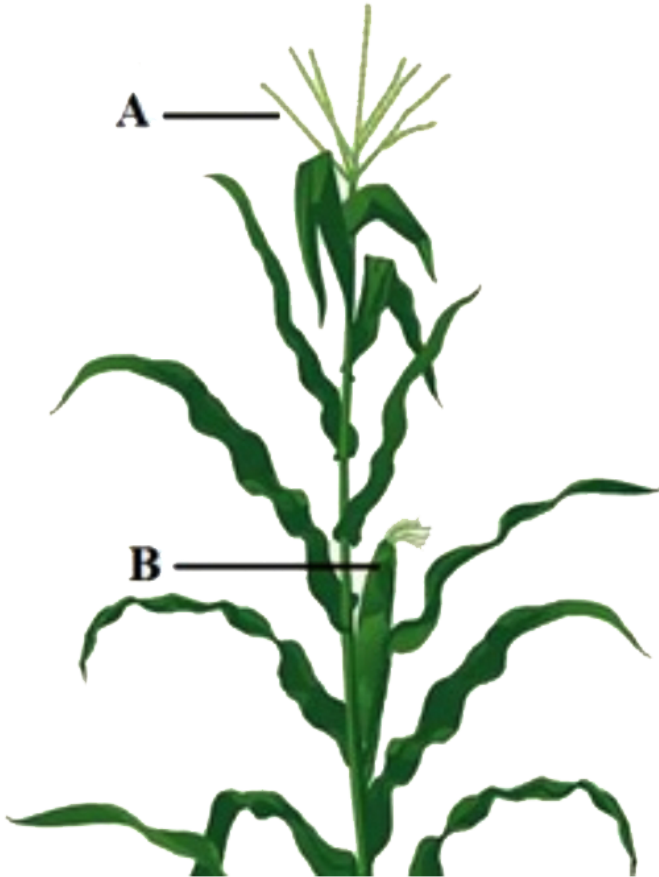
- B. The product of systolic blood pressure and diastolic blood pressure
- C. The difference in systolic blood pressure and diastolic blood pressure
- D. The mean of systolic blood pressure and diastolic blood pressure

**Answer: C**



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16. Identify the labelling A and B with respect to the maize plant .



A. A : Tassels (female flower) , B : Ear (male flower)

B. A : Tassels (male flower) , B : Ear (female flower)

C. A : Ear (male flower) , B : Tassels (female flower)

D. A : Ear (female flower) , B : Tassels (male flower)

Answer: B



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17. A pure homozygous pea plant with yellow round seeds is crossed with a pure homozygous pea plant with green wrinkled seeds. Their progeny produced is allowed to undergo self - pollination. It produces four different phenotypes . Each phenotype is an expression of different types of genotypes. Select the correct option from the table.

		Yellow round seeds	Green round seeds	Yellow wrinkled seeds
I.	Types of genotypes:	9	3	3
II.	Types of genotypes:	4	2	2
III.	Types of genotypes:	3	3	3
IV.	Types of genotypes:	5	2	2

A. I.

B. II.

C. III.

D. IV.

**Answer: B**



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**18.** In Meghalaya, sacred groves are found in

A. Khasi and Jaintia Hills

B. Aravalli Hills

C. Western Ghat regions

D. Surguja , chanda and Bastar areas

**Answer: A**



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**19.** Connecting link between ape and man is:

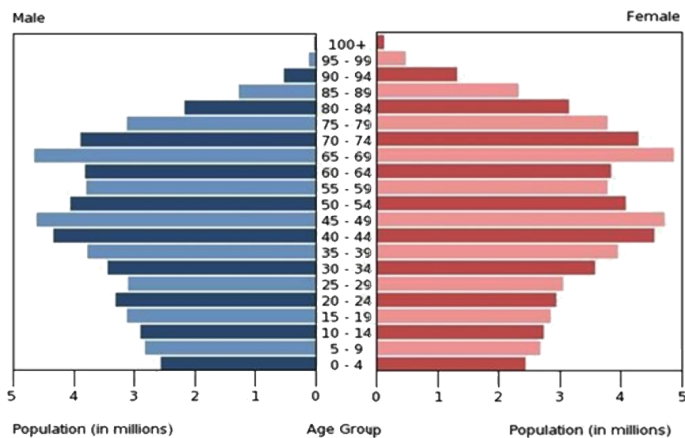
- A. Dryopithecus
- B. Ramapithecus
- C. Australopithecus
- D. Propliopithecus

**Answer: C**



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**20.** Observe the following agewise population graph of a country in 2018 . The population in this country is



- A. stable
- B. expanding
- C. declining
- D. can't comment based on this graph

Answer: C



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21. Photosynthetic efficiency is represented by

$$\frac{X}{\text{Incident total solar radiation.}}$$

The X ' in this equation represents

- A. Gross primary productivity
- B. Net primary productivity
- C. Secondary productivity
- D. None of these

**Answer: A**



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22. In the developing ovule of most of the Angiosperms , megaspore mother cell is situated within the nucellus

- A. towards the micropyle
- B. towards the chalaza

C. in the centre , equidistant from micropyle and chalaze

D. towards the raphe

**Answer: A**



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**23.** In phenylketonuria, the patient has a deficiency of any enzymes which

A. causes hydroxylation of phenylalanine to form tyrosine

B. causes hydroxylation of tyrosine to form phenylalanine .

C. causes carboxylation of phenylalanine to form tyrosine

D. causes carboxylation of tyrosine to form phenylalanine

**Answer: A**



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**24.** Majority of the carbon on the Earth is

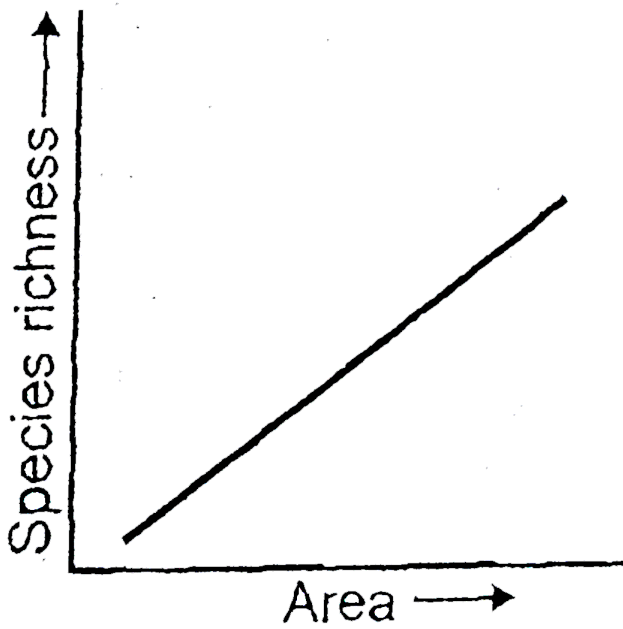
- A. present in plants on lands
- B. dissolved in oceans
- C. present in air as carbon dioxide
- D. present in animals as organic matter

**Answer: B**



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**25.** Relationship between species richness (S) and area (A) represent in the following graph is described by the equation



- A. rectangular hyperbola with  $Z$  as its slope
- B. straight line with  $Z$  as its slope
- C. rectangular hyperbola with  $C$  as its slope
- D. straight line with  $C$  as its slope

**Answer: B**



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**26.** Which of the following statements is incorrect about DDT

- I. DDT stands for dichlorodiphenyltrichloropropane and is an organochlorine insecticide .
- II. DDT is soluble in water but insoluble in organic solvents.
- III. High concentrations of DDT disturb calcium metabolism in birds, which causes thinning of eggshell and their premature breaking .
- IV. In fish - eating birds, the DDT can ultimately reach a very high level of 25 ppm.

A. II , III and IV

B. I and III

C. II and IV

D. I and II

**Answer: D**



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**27.** Callose thickening found in endothelium of anther wall is

- A. a polysaccharide made up of alpha glucose monomers
- B. a polysaccharide made up of beta glucose monomers
- C. a protein made up of mainly acidic amino acids
- D. a protein made up of mainly basic amino acids

**Answer: B**



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**28.** The parents do not suffer from a disease but this disease is seen in some of their children . This disease must be caused due to

- A. autosomal dominant gene
- B. autosomal recessive gene
- C. mitochondrial gene
- D. mitochondrial dominant gene



**Answer: B**



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**29.** International day for conservation of biodiversity is celebrated on

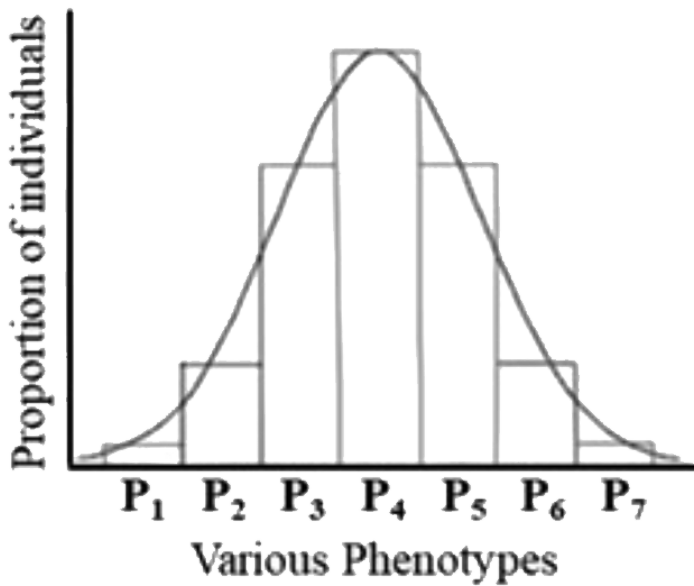
- A. 5th June
- B. 22nd May
- C. 7th April
- D. 1 st December

**Answer: B**



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**30.** Observe the following graph representing the offsprings produced at the end of a cross. State the correct statement regarding this.



- A. It represent a normal Mendelian trihybrid cross
- B. It represents quantitative inheritance controlled by two genes
- C. It represents multiple allelism with three different alleles
- D. It represent polygenic inheritance controlled by three genes

**Answer: D**



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**31.** The function of the gap junction is to

- A. Performing the job of adhesion to keep neighbouring cells together.
- B. Enabling relay of substances between adjoining cells by connecting cytoplasm for rapid transfer of ions, small molecules.
- C. Not allowing the cells to come in contact with each other .
- D. Preventing leakage of substances over and around tissue .

**Answer: B**



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**32.** From the following, select the feature that is common to all respiratory systems in animals.

- A. Active transport removes carbon dioxide from the respiratory structures .
- B. Materials flow in one direction only .
- C. An intake system is comprised of a series of tubes.
- D. Gases diffuse across a moist membrane.

**Answer: D**



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**33.** A genetically modified bacteria producing human insulin can be obtained by adding a human insulin gene inside the genetic material of a bacteria. Choose the next step in using the modified bacteria to treat diabetes among the following.

- A. Add the altered bacterium to human food.

- B. Inject the altered bacterium into the blood of a person with diabetes
- C. Put the bacterium into a fermenter to multiply rapidly
- D. Use the altered bacterium in a nasal spray.

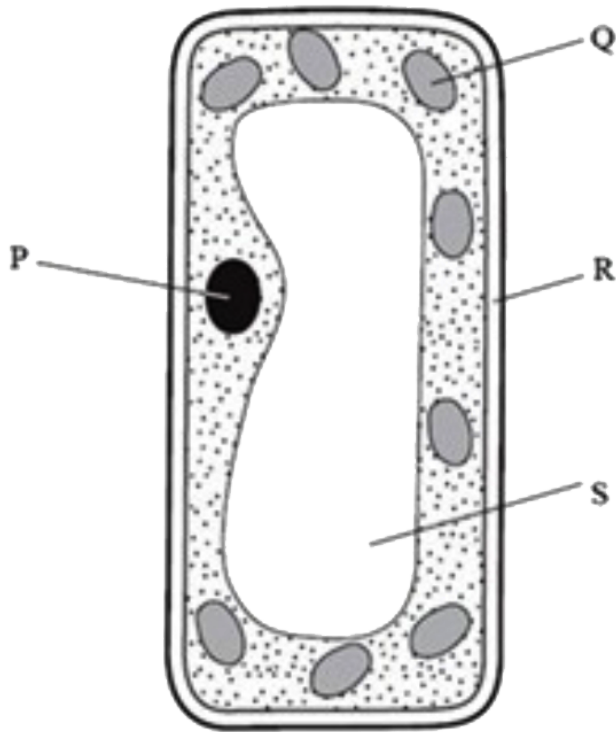
**Answer: C**



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**34.** The picture below is a microscopic image of a plant cell found in the leaf. In this cell, identify the labelled part that helps with storage of

material in the cell.



A. P

B. Q

C. R

D. S

**Answer: D**



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**35.** Read the following statements about enzymes.

Which among them are correct?

I. The mechanism by which enzymes work is known as lock and key.

II. They denature at high temperatures.

III. They are mostly proteins having a tertiary structure.

IV. They may be assisted by vitamins and minerals.

A. I , II and III only

B. I , II , III and IV

C. II and IV only

D. I , II and IV only

**Answer: B**



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**36.** There are 5 test tubes having a culture medium containing rough colonies of streptococcus pneumoniae. The following substances were added in them. Which of these test tubes will show smooth colonies of streptococcus pneumoniae on incubation for some time?

Test tube I: RNA from a heat-killed smooth strain of streptococcus pneumoniae

Test tube II: DNA from a heat-killed smooth strain of streptococcus pneumoniae

Test tube III: Protein from a heat-killed smooth strain of streptococcus pneumoniae

Test tube IV: Carbohydrate from a heat-killed smooth strain of streptococcus pneumoniae

Test tube V: Heat killed smooth strain of streptococcus pneumoniae incubated with DNase enzyme

A. II and V

B. II , III and IV

C. I and II



D. II

**Answer: D**



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37. A plasmid has accepted the gene of interest, such as gene coding for streptomycin. How can we make clones of this plasmid?

- A. Inserting it into a virus to generate multiple copies
- B. Treating it with a restriction enzyme in order to cut the molecule into small pieces
- C. Inserting it into a suitable bacterium in order to produce multiple copies
- D. Running it on a gel electrophoresis in order to determine the size of the gene of interest

**Answer: C**



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**38.** There are two types of organisms known to us based on cell types : prokaryote and eukaryote . Among the given features , select the one that distinguishes prokaryotic organisms from eukaryotic organisms .

- A. Prokaryotes are unicellular , while all eukaryotes are multicellular .
- B. Prokaryotes are aquatic , while eukaryotes are terrestrial .
- C. Prokaryotes are structurally less complex than eukaryotes are .
- D. Prokaryotes lack cell membrane , while eukaryotes do not .

**Answer: C**



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**39.** From the given biomolecules, identify the one which is not a polysaccharide .

A. Cellulose

B. Glycogen

C. Chitin

D. Glycerol

**Answer: D**



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**40.** In the given options, which one is a characteristic features of the zygotene stage to prophase - 1 observed in meiosis ?

A. Chromomeres

B. Crossing over

C. Terminalisation of chiasmata

D. Synaptonemal complex

**Answer: D**



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**41.** Electroporation is a technique that can be used for genetic engineering . This technique enables gene manipulation by

- A. Opening of stomatal pores during night by artificial light
- B. Purification of saline water with the assist of a membrane system
- C. Making transient pores in cell membrane to introduce gene constructs
- D. Fast passage of food through sieve pores in phloem elements with the help of electric stimulation

**Answer: C**



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**42.** Which of these statements is not true about cockroaches ?

- A. Cockroaches have an endoskeleton made of chitin which spans the whole body
- B. The body of the cockroach can be divided into three parts - head , thorax and abdomen
- C. Head is made of six fused segments
- D. The mouth consists of chitinous mouth parts.

**Answer: A**



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**43.** RNA interference is a technique used for making tobacco plants resistant against pest like nematode *Meloidogyne incognita* . In this technique , which of the following processes is inhibited ?

- A. Transcription of mRNA
- B. Maturation of hn RNA.

C. Translation of mRNA

D. Replication of DNA

**Answer: C**



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**44.** In the following statements, one word per statement is underlined. This word can be changed to obtain the correct statement. In which one it should not be changed?

A. In the living world all organisms have DNA as the genetic material which can be transmitted from one generation to another.

B. Purine pyrimidine ratio in Ribose Nucleic Acid can never be equal to 1.

C. The 3rd carbon atom and the 5th carbon atom of all nucleotides in DNA are involved in the formation of phosphodiester bond.

D. Monocyclic nitrogen bases always form weak hydrogen bonds with dicyclic nitrogen bases in B - DNA.

**Answer: D**



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**45.** An enzyme is kept at  $-10^{\circ}C$  for 3 minutes and is used in a chemical reaction (P). It is then gradually brought to room temperature. It is now used in a chemical reaction (Q). Another enzyme is kept at  $80^{\circ}C$  for 5 minutes and is used in chemical reaction (R). It is then gradually brought to room temperature. It is now used in a chemical reaction (S). Which of these reactions will be catalyzed by enzyme and which will not?

A. Reactions in which products are formed : P and R. Reactions in which products are not formed Q and S

- B. Reactions in which products are formed : Q and S. Reactions in which products are not formed P and R
- C. Reactions in which products are formed : P, R and S . Reactions in which products are not formed Q only
- D. Reactions in which products are formed : Only Q . Reactions in which products are not formed : P , R and S

**Answer: D**



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**46.** Read each of the following statements carefully and choose the one that is true for the cell wall.

- A. The function of the middle lamella is to hold different neighbouring cells together.



- B. The cell wall is only known to provide shape and protection to the plant cell from infections.
- C. The primary wall disintegrates as the cell matures and the secondary wall is capable of growth.
- D. The algal cell wall is made up of cellulose , hemicellulose, pectins and proteins.

**Answer: A**



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**47.** Identify the incorrectly matched pair in the given options .

- A. DNA duplication - S - phase
- B. Reductional division - Meiosis
- C. Equational division - Mitosis
- D. Crossing over - Sister chromatids of homologous chromosomes.

**Answer: D**



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**48.** A healthy person and an individual with emphysema having equal body

mass were made to perform an exercise of the same amount . Their rate of oxygen entering the blood in the lungs was measured and is shown in the table below

	Healthy person	Person with emphysema
$O_2$ entering blood per minute	22units	12units

Identify the statements that best explains the above outcome .

- A. The healthy person has a slower breathing rate.
- B. The healthy person has a smaller lung volume
- C. The person with emphysema has damaged alveoli
- D. The person with emphysema has larger surface area in alveoli

**Answer: C**



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**49.** The enzyme DNA polymerase , observed to be active in the process of DNA replication, is involved in the synthesis of

- A. a polypeptide using DNA as a template
- B. a strand of DNA using a polypeptide as a template
- C. a strand of DNA using DNA as template
- D. a strand of DNA using RNA as a template

**Answer: C**



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**50.** The restriction enzymes are used in genetic engineering because:-

- A. They can degrade harmful proteins.

- B. They can cut DNA at specific base sequences.
- C. They can cut DNA at variable sites.
- D. They can join DNA fragments.

**Answer: B**



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**51.** With respect to their classification , find the odd one out from the following.

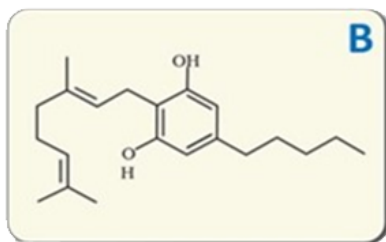
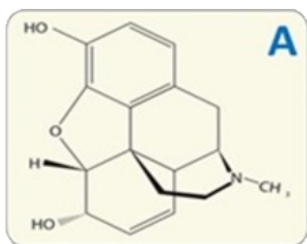
- A. Sea cucumber
- B. Sea hare
- C. Sea lily
- D. Sea urchin

**Answer: B**



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52. Observe the structure of the following molecules. Which of these molecules are correctly matched with the plants that they are obtained from ?



A. A: Cannabis sativa and B : Datura innoxia

B. A: Cannabis sativa and B : Papaver somniferum

C. A: Papaver somniferum and B : Cannabis sativa

D. A: Papaver somniferum and B : Atropa belladonna

**Answer: C**



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53. The microbe used for the commercial production of ethanol is

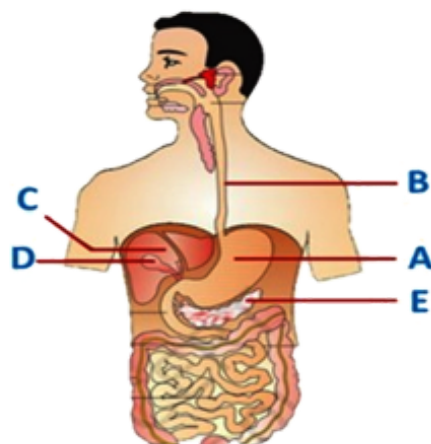
- A. *Clostridium butylicum* , a bacterium
- B. *Aspergillus niger* , a fungus
- C. *Lactobacillus* , a bacterium
- D. *Saccharomyces cerevisiae* , a fungus

**Answer: D**



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54. Identify the functions of the parts labelled as A, B,C,D and E in the given figure . Select the correct option after referring to the given table.



No.	A	B	C	D	E
I.	Deglutition of food	Storage of bile	Secretion of digestive juices	Secretion of bile	Churning and mixing of food with gastric juices
II.	Secretion of digestive juices	Storage of bile	Churning and mixing of food with gastric juices	Deglutition of food	Secretion of bile
III.	Secretion of bile	Churning and mixing of food with gastric juices	Deglutition of food	Storage of bile	Secretion of digestive juices
IV.	Churning and mixing of food with gastric juices	Deglutition of food	Secretion of bile	Storage of bile	Secretion of digestive juices

A. I

B. II

C. III

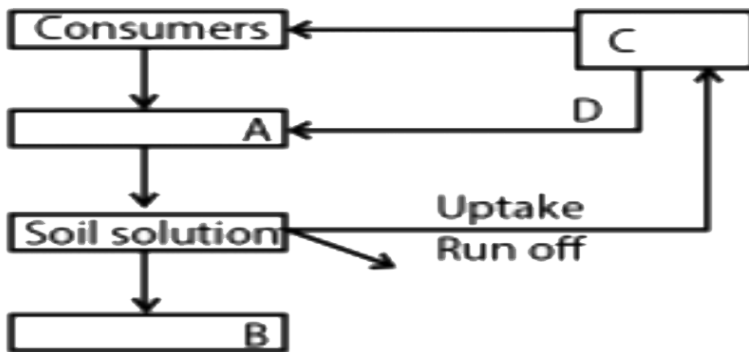
D. IV

**Answer: D**



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**55.** Based on the simplified cycle given below , choose the option with the accurate labellings for A ,B ,C and D.



A. A - Detritus , D - Litter fall

B. B - Detritus , D - Weathering



C. A - Rock minerals , C - Producers

D. C - Producers , D - Decomposition

**Answer: A**



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**56.** Match the disorders given in column I with the conditions seen in that disorder given in column II and select the correct option from the codes given below.

No. (Disorders)	No. (Conditions seen)
I Muscular dystrophy	A Rapid muscular spasms
II Tetany	B Fatigue, weakness and paralysis of skeletal system
III Myasthenia gravis	C Decreased bone mass
IV Osteoporosis	D Progressive degeneration of skeletal muscle

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

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

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

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

**Answer: C**



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57. Sir William Bowman was an English surgeon. He discovered Bowman's capsule , Bowman's glands and Bowman's membrane Bowman's capsule is found in the Kidney. Where do we find Bowman's glands and Bowman's membrane ?

A. Bowman's glands in eye and Bowman's membrane in nose

B. Bowman's glands in nose and Bowman's membrane in eye

C. Bowman's glands in nose and Bowman's membrane in tongue

D. Bowman's glands in tongue and Bowman's membrane in nose

**Answer: B**



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**58.** Which of the following statements is correct about the thyroid gland ?

- A. It is composed of two lobes situated on either side of the esophagus.
- B. The follicular cells of the thyroid gland are responsible for secretion of hormones.
- C. Exophthalmic goitre is a form of hypothyroidism .
- D. Hyperthyroidism during pregnancy can cause defective foetal development.

**Answer: B**



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59. A specialized procedure in which an embryo is formed in the laboratory by injecting a sperm directly into the ovum is

- A. ICSI
- B. AI
- C. GIFT
- D. ZIFT

**Answer: A**



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60. Read the statements given below. Identify which of them are true and which of them are false. Select the correct option after referring to the table.

I. Malaria is caused by a protozoan know as plasmodium.

II. Plasmodium vivax malaria is the most serious one and can be fatal .

III. Plasmodium enters the female body by the bite of the female Anopheles mosquito.

IV. The parasites initially attack the liver cells and then multiple in the WBCs causing their rupture.

A. I-True , II - False , III - True , IV - False

B. I-True , II - True , III - False , IV - False

C. I- False , II - True , III - True , IV - True

D. I- False , II - False , III - False , IV - True

**Answer: A**



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**61.** which of the following statements regarding fertilization and implantation are incorrect ?

- I. During fertilization , a sperm first comes in contact with the corona radiata cells produced by the ovum.
- II. Fertilization occurs only if sperm and ovum are simultaneously transported to the ampullary region.
- III. Implantation occurs about 7 days after fertilization .
- IV. The continuous division of morula leads to the formation of zygote.

A. I and II

B. I , II and III

C. IV

D. II , III and IV

**Answer: C**



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**62.** In the following options ,each one has a pair of names. They are the same hormone with different names. Which one of these does not

follow the rule ?

- A. Parathormone - Collip's hormone
- B. Tetra- iodothyrosine - thyroxine
- C. Prolactin - Lactating hormone
- D. Vasopressin - Anti diuretic hormone

**Answer: B**



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**63.** Which of the following organisms is used to get rid of mosquitoes from the fields ?

- A. Ladybird
- B. Dragonflies
- C. Trichoderma species of fungi
- D. Bacillus thurigiensis

**Answer: B**



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**64.** In which of the following phylum the vector responsible for the transmission of malaria belongs to ?

A. Arthropoda

B. Mollusca

C. Porifera

D. Echinodermata

**Answer: A**



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**65.** The mechanical measure of population control includes



- A. Condom only
- B. Diaphragm only
- C. IUD only
- D. All of the above

**Answer: D**



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**66.** Which of the following are thermodynamically stable?

- |    |                 |                 |
|----|-----------------|-----------------|
| A. | Anatomical unit | Structural unit |
|    | Muscle fibre    | Sarcomere       |
| B. | Anatomical unit | Structural unit |
|    | Myofibril       | Sarcomere       |
| C. | Anatomical unit | Structural unit |
|    | Myofibril       | Muscle fibre    |
| D. | Anatomical unit | Structural unit |
|    | Sarcomere       | Muscle fibre    |

**Answer: A**



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67. The steps involved in the mechanism of vision are given below.

Arrange them in proper sequence and select the correct option.

- A. Dissociation of retinal from opsin and generation of potential difference in photoreceptor cells.
- B. Focusing of the light rays in visible wavelength on the corner through the lens.
- C. Generation of the action potential in ganglion cells through bipolar cells.
- D. Analysis of neural impulse and formation of aa image on the retina.
- E. Transmission of the action potential by the optic nerve to the visual cortex.

A. A,C,E,D,B,

B. B,A,C,D,E,

C. B,A,C,E,D,

D. C,B,A,D,E

**Answer: C**



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**68.** Natural killer cells are

- A. a type of lymphocyte and are a part of acquired immunity
- B. a type of lymphocyte and are a part of innate immunity
- C. a type of monocyte and are a part of acquired immunity
- D. a type of monocyte and are a part of innate immunity

**Answer: B**



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**69.** Which of the following statements regarding female reproductive system is incorrect ?

- A. Oviducts , uterus and vagina constitute the female accessory ducts.
- B. The narrowest part of the oviduct is the ampulla.
- C. The uterus opens into the vagina through a narrow cervix.
- D. Mons pubis is a cushion of fatty tissue covered by skin and pubic hair .

**Answer: B**



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**70.** During old age ,the immunity of a person begins to decrease and as a result , the they become more susceptible to infections and diseases .

What could be the probable reason for this ?

- A. Degeneration of thyroid gland
- B. Degeneration of pineal gland

C. Degeneration of thymus gland

D. Degeneration of pituitary gland

**Answer: C**



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**71.** The correct differentiating point between trichome and root hair is

A. Root hair is an epidermal structure while trichome is a hypodermal structure.

B. Root hair is multicellular while trichome is unicellular Root hair helps in water absorption while trichome helps in prevention of water loss

C. Root hair helps in water absorption while trichome helps in prevention of water loss

D. Root hair may be branched or unbranched but trichome is always branched .

**Answer: C**



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**72.** Which of the following properties are not seen in Funaria ?

I. They have unicellular rhizoids .

II. The gametophytic phase of the life cycle includes Protonema and leafy stage

IV. sporophyte consists of root , stem, and leaves.

A. I and II

B. I and IV

C. II and III

D. I and III

**Answer: B**



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**73.** Complete the analogy

Humans : DNA :: viroids :: ?

A. DNA

B. RNA

C. DNA or RNA

D. Proteins

**Answer: B**



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**74.** Which of these properties are seen in both facilitated diffusion as well as active transport ?

I. Requires ATP for energy .

II. Highly selective process .

III. Occurs against the concentration gradient.

IV. There occurs transport saturation .

A. II

B. II, III and IV

C. I and III

D. II and IV

**Answer: D**



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**75.** Give an outline of the five-kingdom system of classification. What are the advantages and disadvantages of this classification ?

A. II and III



B. I and II

C. III and IV

D. II , III and IV

**Answer:**



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**76.** During glycolysis , isomerization occurs in how many steps ?

A. 2

B. 3

C. 4

D. 5

**Answer: B**



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**77.** Which of these photosynthetic pigments are soluble in water ?

- A. Chlorophyll
- B. Carotene
- C. Xanthophyll
- D. Phycobilin

**Answer: D**



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**78.** Read the following properties. Which of these are seen in mango as well as coconut ?

- I. The fruit is called a drupe.
- II. The fruit is developed from superior ovaries.
- III. The fruit is one - seeded
- IV . The middle layer of the fruit wall is edible .

A. I , II and III

B. I and IV

C. I , II , III and IV

D. II and III

**Answer: A**



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**79.** Match the property of the given plant with its example

No.	Property	No	Example
I	Phanerogam without ovary	A	<i>Marchantia</i>
II	Vascular cryptogam	B	<i>Zea mays</i>
III	Amphibian plant	C	<i>Pinus</i>
IV	Phanerogam with fruits	D	<i>Azolla</i>

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

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

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

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

**Answer: B**



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**80.** Which of these statements about a monocot stem is false ?

- A. The hypodermis in monocot stem is made up of sclerenchyma.
- B. The layer of pericycle just below the endodermis is generally absent.
- C. Central vascular bundles are generally smaller than the peripheral vascular bundles.
- D. Each vascular bundle is conjoint , closed and with endarch protoxylem.

Answer: C



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81. The floral diagram represented below will be seen in which set of plants ?



A. Gram , groundnut and lupin

- B. Tomato , brinjal and potato
- C. Gloriosa , brinjal and potato
- D. Mustard , cabbage , and cauliflower

**Answer: D**



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**82.** The substrate in Krebs cycle which undergoes a reaction very similar to pyruvic acid in mitochondria is

- A. aconitate
- B. succinic acid
- C. alpha - ketoglutaric acid
- D. fumaric acid

**Answer: C**



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**83.** Citrus canker' is caused by a

- A. Virus
- B. Bacteria
- C. Fungus
- D. Algae

**Answer: B**



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**84.** Which of these properties of cassia is correct ?

- A. It has a zygomorphic flower and imbricate aestivation of petals
- B. It has an actinomorphic flower and imbricate aestivation of petals
- C. It has a zygomorphic flower and twisted aestivation of petals

D. It has an actinomorphic flower and twisted aestivation of petals

**Answer: A**



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**85.** Which statement about photosynthesis is incorrect ?

- A. In  $C_4$  plants , the mesophyll cells have PEPcase but don't have RuBisCo
- B.  $F_0$  portion of ATP synthase enzyme protrudes on the outer surface of the thylakoid membrane on the side that faces the stroma.
- C. Stromal lamellae don't have PSII and NADP reductase enzyme.
- D. When carbon dioxide and oxygen is available in equal quantity , RuBisCo has a much greater affinity for carbon dioxide



**Answer: B**



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**86.** Which function is not correctly matched with the appropriate Phytohormone ?

- A. Apical hook formation dicot seedlings : Ethylene
- B. Increase in the length of grapes stalks: Gibberellin
- C. Induction of parthenocarp in tomato : Auxin
- D. Prevention of nutrient mobilization : cytokinin

**Answer: D**



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**87.** What is the role of pseudomonads in the soil ?

- A. Oxidize ammonia to nitrite
- B. Oxidize ammonia to nitrate
- C. Reduce nitrate to nitrogen
- D. Reduce nitrate to ammonia

**Answer: C**



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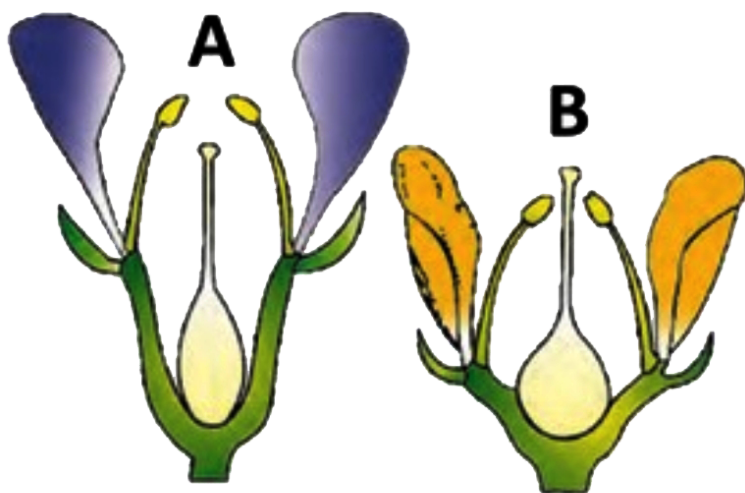
**88.** In which of the following , asexual spores are generally not seen, but there is the development of dikaryophase stage ?

- A. Albugo
- B. Claviceps
- C. Alternaria
- D. Agaricus

**Answer: D**



89. Observe the following flowers and state the correct explanation about them.



- A. A is a hypogynous flower while B is a perigynous flower
- B. A is a perigynous flower while B is a hypogynous flower
- C. Both A and are hypogynous flowers
- D. Both A and B are perigynous flowers

Answer: D



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