



# BIOLOGY

## BOOKS - NTA MOCK TESTS

### NTA NEET SET 44

#### Biology

1. Read the following statements about golden algae and select the one which is false .

A. Golden algae are chrysophytes

B. They belong to plantae

C. They include desmids

D. They have autotrophic mode of nutrition

**Answer: B**



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2. Amol suffers from liver failure and he gets liver transplantation . He has been advised a medicine help him accept the donor liver.

What could be the medicine and what could be the source from which It is commercially obtained?

A. Drug : Streptokinase , Organism :

Streptococcus

B. Drug : Statins , Organism : Clostridium

C. Drug : Cyclosporin A, Organism

Trichoderma

D. Drug : Statins , Organism : Monascus

**Answer: C**





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3. Jay fell ill after having sandwich which was kept in the refrigerator. But bacteria / viruses do not survive in cold temperatures , so which response must have the micro -organism adapted to in order to survive

A. Migration

B. Conformation

C. Suspension

## D. Regulation

**Answer: C**



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4. According to the three domain classification , Methanococcus and Rhizobium belong to

A. same domain and different kingdom.

B. same domain and same kingdom .

C. different domain and different kingdom.

D. different domain and same kingdom

**Answer: C**



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**5. Identify the True or False statements about the sewage treatment plants.**

I. The water is less polluted if BOD is high.

II. Flocs are formed by anaerobic bacteria with fungal filaments in mesh-like structures.

III. Activated sludge acts like an inoculum in

activated sludge digesters.

IV. In activated sludge digesters, gases like methane, hydrogen sulphide and carbon dioxide are formed.

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

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

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

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

**Answer: C**



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6. The population of a city was 6000. In the year 2019, there were 2050 new births in the city and 650 deaths. 1325 people migrated into to the city while 175 people left the city. What was be the population of the city at the end of the year 2019?

A. 7200

B. 3450

C. 8550

D. 8900



**Answer: C**



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7. Which of the following statements are correct about the cellular organization?

I. Mesoglea is the layer present between ectoderm and endoderm of diploblastic animals.

II. Mesoderm is the layer present between ectoderm and endoderm of diploblastic animals.

III. Mesoderm is the layer present between the ectoderm and endoderm of triploblastic animals.

IV. Mesoderm is the layer present between ectoderm and endoderm of triploblastic animals.

A. I and II

B. I and III

C. II and IV

D. I and IV

**Answer: D**



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8. Lichens are symbiotic association between two organisms . Which of these statements about them is true ?

A. Lichens are fast growing organisms that live for a short period

B. The algal component is called mycobiont and fungal component is called phycobiont

C. They are pioneers of vegetation on rocks.

D. They grow well in cities.

**Answer: C**



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**9.** Form the given options, identify the options which has the Family and class.

A. Housefly : Family - Diptera, Class - Insecta

B. Wheat: Family - Solanaceae , Class -  
Monocotyledonae

C. Wheat : Family - Poaceae , Class -  
Monocotydonae

D. Mosquito : Family - Muscidae , Class -  
Insecta

**Answer: C**



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**10.** In how many of the following , primary succession will occur ?

( Abandoned farmland , newly created pond , bare rock burnt forest )

A. Newly created ponds , bare rock ,

bandoned farmlands and burnt forests

B. Newly created ponds and bare rock

C. Abandoned farmlands , bare rocks and

burnt forests

D. Bare rocks

**Answer: B**



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**11.** How many of the following enzymes are involved in digestion of food in adults?

(Salivary amylase , Trypsinogen , Pepsin, Lysozyme, Lipase, Rennin)

A. 5

B. 3

C. 6

D. 4

**Answer: D**



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**12.** The following options have a property of a fungus paired with its example . Which of these is an incorrect pair ?

A. Sporangiospores - Mucor

B. Conidia - Penicillium



C. Asexual reproduction is absent -

Agaricus

D. Only by asexual reproduction - Alternaria

**Answer: C**



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**13.** Identify the correct match between the organism and appropriate reproductive

structures .

Organism	Reproductive structures
----------	-------------------------

i. Algae	a. Gemmule
----------	------------

ii. Penicillium	b. Conidia
-----------------	------------

iii. Sponge	c. Buds
-------------	---------

iv. Hydra	d. Zoospore
-----------	-------------

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

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

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

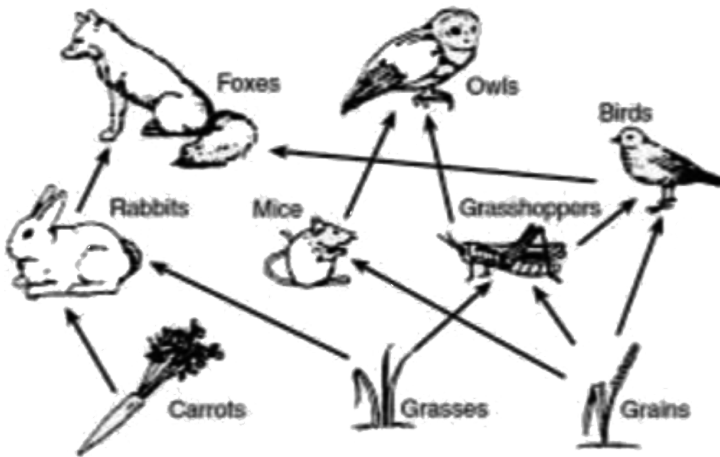
D. i - d , ii - b , iii - a , iv - c

**Answer: D**



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14. Identify the correct number of food chains in the given food web .



- A. Five
- B. Four
- C. Six
- D. Seven

**Answer: C**



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**15.** Which of these muscles don't exist in animals ?

A. Striated in appearance and voluntary in action

B. Unstriated in appearance and involuntary in action

C. Striated in appearance and involuntary

in action

D. Unstriated in appearance and voluntary

in action.

**Answer: D**



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**16.** In which of these plants , the diploid stage of their life is dependent on the haploid stage of their life ?

A. Riccia , Marchantia

B. Pinus, Cycas

C. Nephrolepis , Adiantum.

D. Hibiscus, Cycas

**Answer: A**



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**17. Which of the following plants have albuminous seeds ?**

(Wheat , pea black pepper ,castor, sunflower,  
groundnut , barley)

A. Pea , black pepper , castor , sunflower

B. Wheat , Sunflower , groundnut , barley

C. Pea , castor , sunflower , groundnut ,  
barley

D. Wheat castor , sunflower , barley

**Answer: D**



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**18.** A fowl consumes grains . What will we call the rate at which new organic matter is produced by this fowl ?

- A. Primary productivity Rate
- B. Gross Primary productivity
- C. Net primary productivity
- D. Secondary productivity

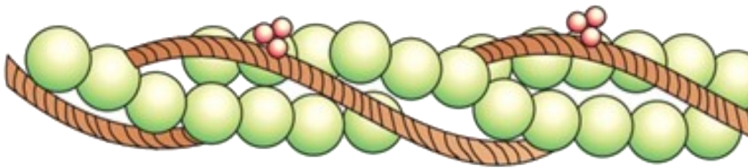
**Answer: D**



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# 19. Identify I,II and III and select the correct option



A.

I	II	III
Each actin filament is made of two troponin helically wound	Two filaments of F-actin run close to A-actin	Tropomyosin is distributed at regular intervals

B.

I	II	III
Each actin filament is made of two F-actins helically wound	Two filaments of tropomyosin run close to F-actin	Troponin is distributed at regular intervals

C.

I	II	III
Each actin filament is made of two tropomyosins helically wound	Two filaments of troponin run close to A-actin	F-actin is distributed at regular intervals

D.

I	II	III
Each actin filament is made of two troponin helically wound	Two filaments of tropomyosin run close to F-actin	F-actin is distributed at regular intervals

**Answer: B**



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**20.** Which of these statements accurately describes the correct description of flagella in algae ?

A. In phaeophyceae motile spores have 2 -8, equal , lateral flagella

B. In chlorophyceae motile cell , have 2 unequal , apical flagella

C. In rhodophyceae motile cells have 2 - 8 ,  
equal and apical flagella, few are non -  
motile

D. In phaeophyceae motile spores are  
biflagellate and flagella are unequal and  
lateral .

**Answer: D**



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21. A plant breeder wants to obtain a superior quality maize crop . what are the sequence of events he must follow to pollination the maize flowers with chosen pollen ?

A. Bagging → Dusting of pollen → Rebagging

B. Bagging → Emasculation → Dusting of pollen → Rebagging

C. Emasculation → Bagging → Dusting of pollen → Rebagging

D. Bagging → Dusting of pollen →

Emasculation → Rebagging

**Answer: A**



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**22. Which of these acts is not a part of the 'Evil Quartet' ?**

**A. Destruction of rainforests for cultivation**

- B. Shifting endangered species out of their natural habitat to special setting
- C. Introduction of Nile perch which led to the destruction of species of cichlid fish
- D. Extinction of passenger pigeon led to extinction of its parasitic bird lice

**Answer: B**



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23. While examining his knee jerk Suresh's doctor found that there was no response but Suresh informs that he could feel the tendon hammer touching his knee. Where is the problem likely to be ?

A. Afferent pathway

B. Dorsal ganglion

C. Receptors

D. Efferent pathway

**Answer: D**



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24. Which of these statements regarding modified roots and stem is incorrect ?

A. In Asparagus , adventitious root is modified for food storage

B. Prop roots are for mechanical support

C. Underground stems of potato , ginger turmeric , zaminkand and colocasia are modified for photosynthesis



D. Onion is an example of modified shoot

**Answer: C**



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**25.** Which of the following is incorrect regarding biodiversity ?

I. Species diversity is highest in poles and decreases towards tropics

II. Stable community shown more productivity

III. Sacred groves are a type of ex situ

conservation

IV. More solar energy available in tropics contributes to its higher productivity .

A. I and IV

B. I , III and IV

C. II and III

D. I and III

**Answer: D**



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26. Which part /s is likely to be effected in the ear when an individual feels giddiness , loss body balance and suffers from ear disease ?

A. Organ of corti

B. Tectorial membrane and Reissner's membrane

C. Crista ampullaris and macula

D. Eustachian tube

**Answer: C**



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27. Which structure does a cell need for movement ?

A. Microfilaments

B. Microtubules

C. Intermediate filaments

D. All of these

**Answer: D**



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**28.** Which of the statements are in accordance with the observation of geographer Alexander von Humboldt ?

I. Within a region species richness increases with increasing explored area but within a limit.

II. The relation between species richness and area is a rectangular hyperbole.

III. The richness of species decreases with the increasing explored area.

IV. There is no relation between the explored area and species richness .

A. I and II only

B. I , III and IV

C. II and IV

D. II and III

**Answer: A**



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**29.** According to the accepted concept of hormone action, if receptor molecules are

removed from target organs, then the target organ will

A. Not respond to the hormone

B. Continue to respond to the hormone without any difference q

C. Continue to respond to the hormone but in the opposite way

D. Continue to respond to the hormone but will require higher concentration

**Answer: A**



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30. Examine the diagram given below and identify the angiosperms family to which it belongs to.



- A. Solanaceae
- B. Leguminosae
- C. Papilionaceae
- D. Liliaceae



**Answer: A**



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**31.** A person had some visual difficulties. His examination revealed corneal inflammation and was diagnosed with snow blindness. Which environmental condition may have played a role in his illness ?

A. Ozone depletion

B. Radiation Hazard

C. Air Pollution

D. Agro chemicals

**Answer: A**



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**32.** Reena gave birth to a mentally retarded child who also had stunted growth . The doctor informed that the child's condition was because of some endocrine problem in the

mother during pregnancy . Which of the following is most likely to be the cause ?

- A. Low GH from Pituitary gland
- B. Excessive Glucocorticoids from adrenal glands
- C. Low secretion of parathyroid hormone
- D. Low secretion of thyroid hormones from thyroid gland

**Answer: D**



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**33.** Which of the following statements are correct about the plant known as ' Terror of Bengal '?

I. It has been a native of India since hundreds of years .

II. It is commonly called water hyacinth and have mauve flowers.

III. Its scientific name is *Eicchornia crassipes* .

IV. It causes disturbance in ecosystem dynamics of water body in a short span of time.

A. III and IV

B. II and IV

C. II, III and IV

D. I , II , III and IV

**Answer: C**



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**34.** The mismatched pair among the following is :

A. Monadelphous - Hibiscus

B. Diadelphous - Cucurbita

C. Polyadelphous - Citrus

D. Variation in the length of stamen  
filaments - Salvia

**Answer: B**



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**35.** Ramesh's grandfather falls ill repeatedly due to infections. The doctor says it's because his immunity is lowered owing to his old age. Which of the following is likely to be affected ?

- A. Thyroid gland
- B. Pituitary gland
- C. Adrenals
- D. Thymus

**Answer: D**



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**36.** Read the following statements about the living plant tissue which has irregular thickenings and identify the false statement .

I. The cell wall is rigid without any intercellular spaces.

II. It is found in the form of a single - layered hypodermis of the herbaceous dicotyledonous stem.

III. It is mostly found in monocots and roots .

IV The main function is to provide flexible mechanical support and tensile strength .



A. I and II

B. II and III

C. III and IV

D. I , II and III

**Answer: B**



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**37.** Match the contents of the following columns

Animal	Level of Organization	Phylum
A. Jelly Fish	I. Organ	w. Platyhelminthes
B. Sponges	II. Tissue	x. Annelida
C. Hirudinaria	III. Organ system	y. Cnidaria
D. Taenia	IV. Cellular	z. Porifera

A. A - II -x, B-II-y,C-I-w,D-IV-z

B. A - II -y, B-IV-z,C-III-x,D-I-w

C. A-I-z, B - III - w, C-IV-y,D-II-x

D. A-IV-w, B - I - x, C-II-z,D-III-y

**Answer: B**



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**38.** Which of the following systems is responsible for the uniform mixture of oxygen in a stirred - tank bioreactor ?

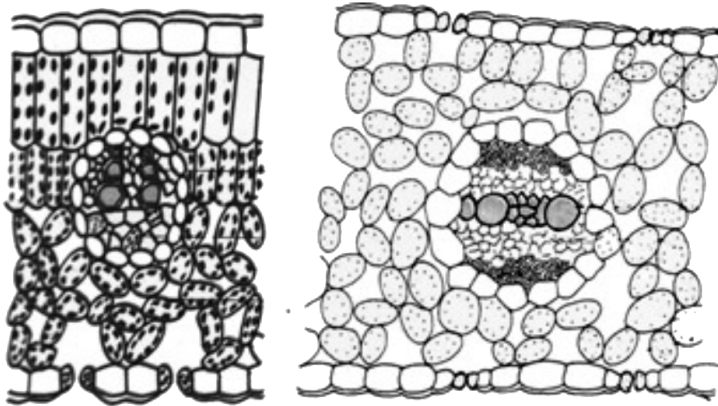
- A. Agitator system
- B. Sparger system
- C. Foam control system
- D. Sampling ports

**Answer: A**



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39. What is the correct difference between the following diagrams ?



A. Absence of mesophyll tissue in (II)

B. Absence of cuticle (I)

C. Absence of sub - stomatal chamber in both types of the leaves in (I)

D. Absence of palisade tissue in (II)

**Answer: D**



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**40.** If Levitt's hypothesis is to be believed , then the opening and closing of stomata take place as a result of ..... in and out of guard cells .

- A. Active transport of calcium ions
- B. Active transport of potassium ions
- C. Diffusion of potassium ions
- D. Diffusion of calcium ions

**Answer: B**



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**41.** Other than gene therapy , which of the following temporary remedies have been previously used for treating ADA deficiency ?

A. Therapy with monoclonal antibodies

B. Bone marrow transplantation

C. Plasma therapy

D. Treatment with antibiotics or vaccines

**Answer: B**



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**42.** How many of the following statements describing the functions of Mn are true?

I .Mn is required during non - cyclic

photophosphorylation

II. Mn competes with iron and magnesium for uptake .

III.Mn promotes calcium translocation in the shoot apex.

IV. Mn is an activator of many respiratory enzymes.

A. 3

B. 4

C. 2

D. 1



**Answer: A**



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**43.** Choose the incorrect statement about mesosomes.

A. Mesosomes are specialized membranous structures which are formed by the extensions of the cell membrane.

B. They have a prominent role in cell wall formation and DNA replication .

C. They are found as chromatophores in the cytoplasm of some prokaryotes , like cyanobacteria .

D. They help in several secretion processes and enzymatic content .

**Answer: C**



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44. Two molecules of the primary acceptor of carbon dioxide in Calvin cycle undergoes photorespiration. How many glycine molecules will be formed from it ?

A. 1

B. 2

C. 3

D. 4

**Answer: B**



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45. People who are known to be lactose intolerant do not produce the lactose digesting enzyme, lactase. This happens because the lactase producing gene is shut off in their cells connected to the digestive system. Which of the following processes is not occurring for the mentioned gene?

A. Translation

B. Mutation

C. Replication

## D. Transcription

**Answer: D**



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**46.** Which of the following components of phosphorylation are not found in the stroma lamellae ?

A. PS II complex

B. PS I complex

C. NADP reductase

D. Both (A) and (C)

**Answer: D**



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**47.** Identify the correct statement about the angiospermic embryo .

i. The scutellum is centrally placed in monocots .

ii. Plumule is. The stem tip and radicle is the

root tip in dicots .

iii. Coleorhiza is part of the hypocotyl in monocots.

iv. Monocotyledonous zygote gives rise to a globular heart - shaped embryo .

A. i and ii

B. ii and iv

C. ii and iii

D. iii and iv

**Answer: C**



**48.** Krebs' cycle starts with the formation of a six carbon compound by reaction between

- A. Succinic acid and Fumaric acid
- B. Fumaric acid and pyruvic acid
- C. Oxaloacetic acid and Acetyl CoA
- D. Malic acid and Acetyl CoA

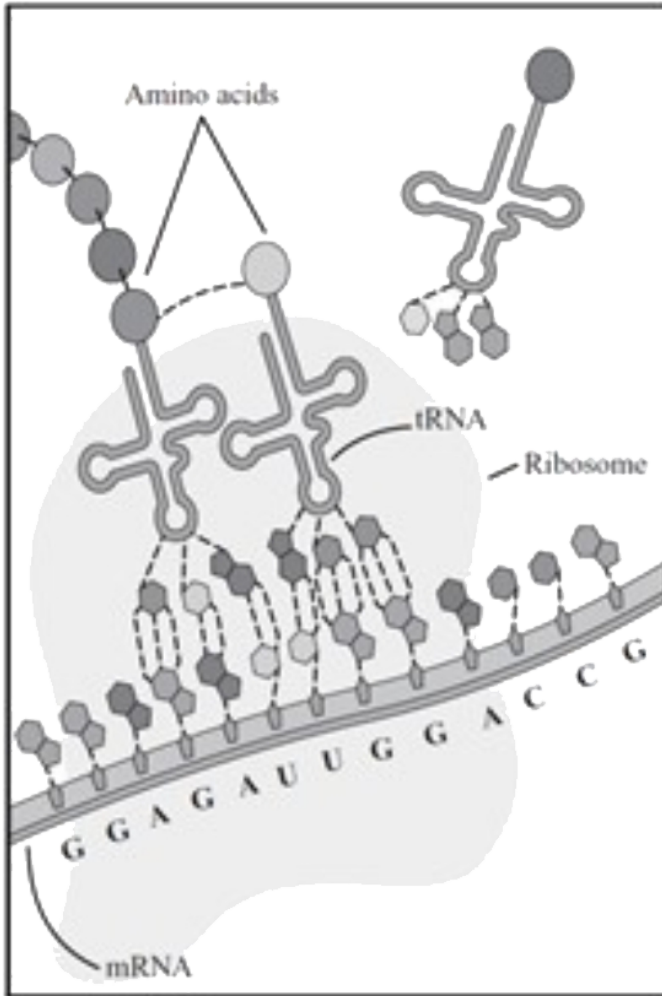
**Answer: C**





**49.** Given below is a representation of a very important process in the construction of a biomolecule . Choose the correct statement

about this process from the following.



A. In this process , a polypeptide chain is broken down into is broken down into

its amino acids .

B. This process takes place in the ribosomes where the tRNA carries the amino acids as per the mRNA sequence .

C. The bases of the DNA are duplicated and new copies are formed.

D. DNA is transcribed into new mRNA which will further take part protein synthesis.

**Answer: B**



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50. Aerobic respiration of glucose produces ATP . How many of them are produced during election transport system ?

A. 32

B. 34

C. 28

D. 2

**Answer: B**



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51. 2,4 - dichlorophenoxyacetic acid is used to eliminate .... Weeds from a ... Crop field .

A. monocotydonous , dicot , dicot

B. dicotyledonous monocot

C. biennial , annual

D. biennial , perennial

**Answer: B**



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52. A sample of live microbial cells was presented to a scientist . He decides to stop the synthesis of a particular protein in the sample cells. Suggest a modification in the part of the cell for the scientist to enable the prevention of that particular Protein synthesis.

A. The DNA in the nucleus

B. An enzyme in the lysosomes

C. The polysaccharides in the cytoplasm

D. A phospholipid in the plasma membrane

**Answer: A**



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**53.** Identify the correct statement regarding cytokinins.

I. Cytokinins induce cell division .

II. Cytokinins delay the onset of senescence.

III. Cytokinins initiate chloroplast formation in the presence of light .

IV. Application of Cytokinins reduces the apical

dominance and stimulates the growth of lateral buds.

A. I,II , III and IV

B. I,II and III

C. I and IV

D. I and III

**Answer: A**



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54. Which one of the following statements about erythrocytes is false ?

A. In the life cycle of a foetus, erythropoiesis takes place in both liver and bone marrow.

B. They maintain the viscosity of blood.

C. They maintain blood pH as they contain haemoglobin which acts as a buffer.

D. The total quantity of RBCs in a human male body is around 5.5 million.

**Answer: D**



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**55.** Denaturation is a step in the procedure called polymerase chain Reaction . This step does not involve which of the following process ?

- A. Breaking of hydrogen bonds of the original DNA double helix
- B. Heating of starting solution to  $94^{\circ}C$
- C. Addition of nucleotides to the primer by DNA polymerase
- D. Creation of single - stranded DNA templates

**Answer: C**



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**56.** Which of the following will occur if lysosomes within a cell are damaged ?

A. The cell would produce more proteins than it needs .

B. The cell would have chloroplasts that appear yellow rather than green.

C. The ability of the cell to break down molecules in its cytoplasm would decrease.

D. The ability of the cell to regulate the amount of fluid in its cytoplasm would decrease.

**Answer: C**



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**57.** Typhoid is caused by a

A. Gram positive , flagellated bacterium

B. Gram positive , non flagellated  
bacterium

C. Gram negative , flagellated bacterium

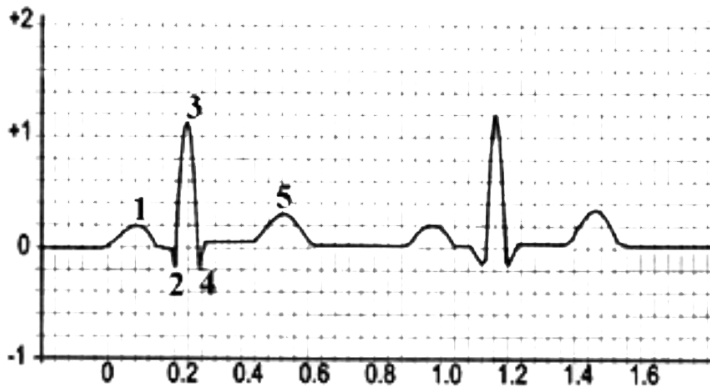
D. Gram negative , non - flagellated  
bacterium

**Answer: C**



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58. Observe the diagram and state the false statement.



A. In this graph , -1,0,+,+2 are millivolts and ,  
0,0.2 0.4 , .....are seconds

B. Wave 1 represents impulse generated by  
SA node .

C. Wave 5 represents ventricular depolarization which causes ventricular relaxation.

D. Waves 2,3 and 4 represent spreading of impulse from AV node to Purkinje fibers.

**Answer: C**



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**59.** Which of the following is not a part of a typical embryo sac formation in angiosperms ?

A. The MMC undergoes meiotic division to form 4 megaspores.

B. Three mitotic divisions occur in a megaspore to form an eight nucleate stage.

C. The cell walls are formed with 3 cells grouped together at chalazal end,

together called the egg apparatus.

D. The egg apparatus contains two synergids and one egg cell .

**Answer: C**



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**60.** The correct statement about dialysis is :

A. It acts as a permanent treatment solution to treat people with end - stage

kidney disease.

B. The dialysing unit into which the blood is drained contains heparin to prevent coagulation.

C. The cellophane tube is surrounded by a dialysing fluid , which has the same concentration as plasma including the nitrogenous waste.

D. Dialysis replaces all of the functions of the kidney through diffusion.

Ultrafiltration and tubular secretion.

**Answer: B**



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**61.** The gestation period in humans is

A. 280 day from the end of the last

menstrual cycle

B. 280 days from the day of insemination

C. 280 days from the day of fertilization of the egg

D. 266 days from the day of the start of the last menstrual cycle .

**Answer: A**



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**62.** What words will correct fill (a) , (b),(c) and (d) in the following paragraph ?

(a) developed into a pollen grain. The outer

layer is (b) and inner layer is intine . The inner layer is made up to cellulose and ( c ) .In 60% of the angiosperms, pollen grains are shed at (d) celled stage .

A. (a) - Anther , (b) - Exine , (c) - Chitin , (d) -

3

B. (a) - Microspore , (b) - Exine , (c) - Chitin

(d) -2

C. (a) - Anther , (b) - Exine , (c) - Pectin , (d) -

2

D. (a) - Microspore , (b) - Exine , (c) - pectin,

(d) -2

**Answer: D**



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**63.** Each of the following statements concerning the seminiferous epithelium is correct except .

A. Before puberty , it contains spermatids

B. It consists of Sertoli cells and spermatogenic cells

C. It has a robust basement membrane

D. Its basal compartment contains spermatogonia

**Answer: A**



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**64.** Respiratory system plays an important role of enabling gas exchange and supply of oxygen to the animals. Although, the basic mechanism of the system remains same , animals display variation in their respiratory system. In the following columns match the animals with their organ for respiration.

Animal	Respiratory
1 Kangaroo	<i>P</i> Moist cuticle
2 Pomfret	<i>Q</i> Lungs
3 Cockroach	<i>R</i> Gills
4 Earthworm	<i>S</i> Tracheal tubes

A. 1-Q , 2-P ,3-S , 4-R

B. 1-Q , 2-R ,3-S , 4-P

C. 1-Q , 2-R ,3-P , 4-S

D. 1-Q , 2-P ,3-R, 4-S

**Answer: B**



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**65.** In a average menstrual cycle of 28 days ,  
which of these events is correctly matched  
with the time of its occurrence ?

A. Release of ovum : 5<sup>th</sup> day

B. Endometrium degenerates : 5<sup>th</sup> – 10<sup>th</sup>  
day

C. Endometrium secretes nutrients for  
implantation : 15<sup>th</sup> – 28<sup>th</sup> day

D. Rise in progesterone level : 1<sup>st</sup> – 15<sup>th</sup>  
day

**Answer: C**



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66. Which of the following is developed through mutational breeding ?

A. Resistance to white rust in Brassica

B. Resistance to the yellow mosaic virus in bhindi .

C. Resistance to powdery mildew in Abelmoschus.

D. Resistance to leaf curl in chilli.

**Answer: B**





67. Which of the following is incorrect regarding copper - T ?

A. Increasing phagocytosis of sperms

B. Suppressing motility of sperms

C. Preventing implantation of the  
blastocyst

D. Preventing ovulation

**Answer: D**



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68. In a double - stranded DNA , one of the nitrogen base is adenine, whose amount is found to be always equal to the amount of

- A. 5 - methyl uracil which is a purine
- B. 5- methyl uracil which is a pyrimidine
- C. Guanine which is a purine
- D. Guanine which is a pyrimidine

**Answer: B**



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**69.** Sterilization technique are the last option for couples because

I. It is almost irreversible.

II. There is a misconception that it will reduce sexual / urge drive .

III.It is a surgical procedure.

IV. There is a lack of sufficient facilities in many parts of the country .

A. I and III

B. II and III

C. II and IV

D. I,II, III and IV

**Answer: D**



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**70.** A patient comes to the clinic with a genetic disorder characterized by a webbed neck and the presence of rudimentary ovaries. This person most likely has



- A. two X and one Y sex chromosomes
- B. only one sex chromosome which is X
- C. three 21<sup>st</sup> chromosome
- D. three X chromosomes

**Answer: B**



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71. Alveoli is the site for the gas exchange in the respiratory system of humans. Gas exchange occurs due to the gradient in the

partial pressure of gases. During the process, the partial pressures of oxygen in alveoli is found to be

- A. Less than that in deoxygenated blood.
- B. More than that in oxygenated blood.
- C. Equal to that in atmospheric air.
- D. Less than that in tissues

**Answer: B**



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72. Which of these statements is correct regarding genes present on the same chromosomes ?

A. Tightly linked genes on the same chromosome show very few recombinations

B. Tightly linked genes on the same chromosome show higher recombinations

C. Genes far apart on the same chromosome show very few recombinations

D. Genes loosely linked on the same chromosome show similar recombinations as the tightly linked ones.

**Answer: A**



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**73.** It has been found that the domestic horses have 64 chromosomes in their cell. Predict the number of chromosomes in the egg cell of a female horse.

A. 16

B. 32

C. 64

D. 128

**Answer: B**



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74. A colour - blind man has a colour - blind sister but a normal brother. Which of these is correct about their parents ?

A. Father is colour blind and mother is a carrier

B. Father is normal and mother is colour blind

C. Father and mother both are colour blind

D. Father and mother both are normal

**Answer: A**



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**75.** Which of these are an incorrect matched pair of the post - mendelian phenomenon and its example ?

A. Incomplete dominance - Antirrhinum majus

B. Co - dominance - The type of wings in Drosophila

C. Pleiotropy - Sickle cell anemia gene

D. Polygenes - wheat kernel colour

**Answer: B**



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**76.** The human body cell contains a huge number of enzymes which are biocatalyst and help in smooth metabolic activities. What will be the body temperature and pH value for the enzymes to work at its optimum level ?



A.  $0^{\circ}C$  and  $pH2$

B.  $12^{\circ}C$  and  $ph5$

C.  $37^{\circ}C$  and  $pH7$

D.  $25^{\circ}C$  and  $pH7$

**Answer: C**



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77. If mother's blood group is A and father blood group is AB , then child 's blood group cannot be

A. A

B. B

C. O

D. AB

**Answer: C**



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**78. Why Mendel can be considered lucky ?**

A. All seven Pairs of contrasting characters selected by him , showed complete dominance and all the allelic pair combinations which he considered for dihybrid cross showed independent assortment .

B. All the allelic pair combinations which he considered for dihybrid cross showed linkage .

C. Pea varieties expressed intermediate characters as compared to parents.

D. He used heterozygous plants as parents in monohybrid cross.

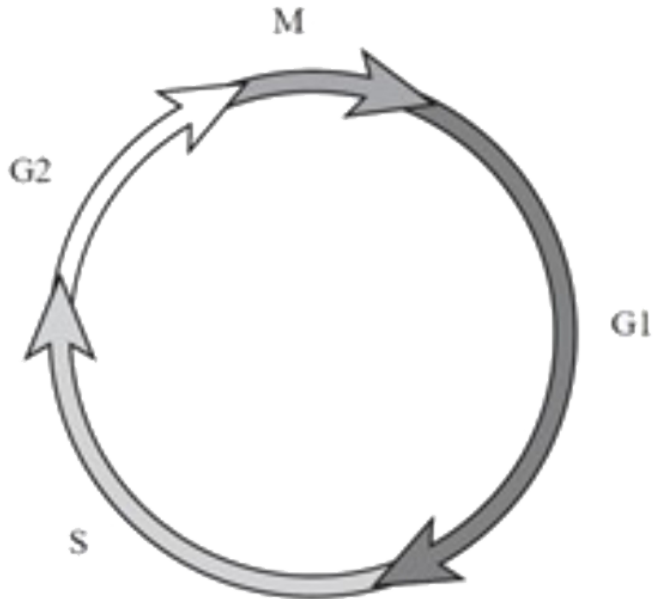
**Answer: A**



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**79.** The below image summaries the cell cycle of a typical eukaryotic cell. Using the image as a reference, determine the activities occurring

at the  $G_1$  Phase of the cell cycle .



- A. Growth of the cell
- B. Replication of the DNA
- C. Formation of mitotic spindle
- D. Breakdown of nuclear membrane

**Answer: A**



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**80.** What is not true about mutation according to Hugo de Vries theory?

A. They are large and discontinuous changes

B. Mutations are random and directionless

C. They are heritable and establish new species

D. A single step large mutation to produce a species can never occur

**Answer: D**



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**81.** When lactose is digested by the body each lactose molecule is broken down into smaller molecules. To which of the following

categories of molecules do these smaller molecules belong ?

A. The group having a wetter ion

B. The non - hydrozable group which is crystalline , sweet to taste and has asymmetric carbon atoms

C. The group which are esters

D. The group which has nitrogen in them

**Answer: B**



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**82.** The unique features of Haldane's hot dilute soup was

A. its molecules did not show any degradation as there was no free oxygen and enzymes.

B. it had C, H and O in gaseous form.

C. its temperature was suited to provide environment for formation of first cell.

D. it contained enzymes to accelerate reactions .

**Answer: A**



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**83.** A sample was given to the lab technician for figuring out whether the cells of the sample come under the category of prokaryote or eukaryote . Four of the dyes are described in the determining process .

Dye	Test
Acridine orange	stains DNA and RNA
Osmium tetroxide	stains lipids
Eosin	stains cell cytoplasm
Nile blue	stains cell nuclei

Predict the stain that was used by the lab technician that help her identify whether sample cells will come under the group of prokaryote or eukaryote.

A. Acridine orange

B. Eosin

C. Nile blue

D. Osmium tetroxide

**Answer: C**



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**84.** Refer to the given below and identify the correct taxonomic group to which the

organism belongs :



A. Ceboidea

B. Cercopithecoidea

C. Hominoidea

D. Prosimii

**Answer: D**



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**85.** Arrange the following processes in the chronological order w.r.t cancer.

A. Metastasis

B. Activation of c - onc genes

C. Damage to neighboring cells .

D. Loss of control of cell cycle

A. B-D-C-A

B. D-B-A-C

C. B-D-A-C

D. C-B-D-A

**Answer: A**



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**86.** Hepatic caeca observed in cockroach is positioned in its body in / at -

A. between the 2<sup>nd</sup> and 3<sup>rd</sup> segments of the mesothorax.

B. oesophagus

C. junction of foregut and midgut

D. junction of midgut and ileum

**Answer: C**



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**87.** Silencing a specific mRNA in order to prevent its translation is known to be a cell defense mechanism . What is the name of this process useful in making transgenic organisms ?

A. Gene gun technology

B. Elution

C. RNA interference

D. Gene deletion

**Answer: C**



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88. The correct order of stages in life cycle of plasmodium is

A. Gametocytes - gametes - ookinete oocyst

- sporozoite

B. gametocytes - gametes - ookinete oocyst

- merozoite

C. gametocytes - gametes - oocyst ookinete

- sporozoite.

D. gametocytes - gametes - oocyst -  
sporozoite - ookinete

**Answer: A**



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**89.** Read the statements regarding animals tissues and identify the one that is incorrect .

A. Cuboidal epithelium is commonly found  
in ducts of glands and tubular parts of

nephrons in kidneys.

B. Compound epithelium covers the dry surface of the skin and has protective function

C. Epithelial tissue is rich in intercellular matrix and is vascular

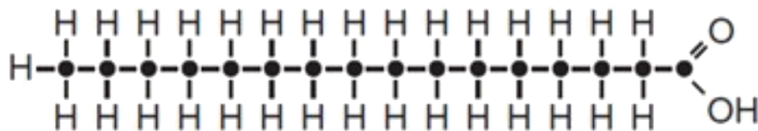
D. Skin is connected to muscles by areolar connective tissue

**Answer: C**



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90. Below is the image of an organic molecule that participates in the formation of a biomolecule .



In the above image of the molecule determine the element that will that the place marked by the dots ( · )

A. Carbon

B. Nitrogen

C. Phosphorus

D. Sulphur

**Answer: A**



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