



BIOLOGY

BOOKS - NTA MOCK TESTS

NTA NEET TEST 111

Biology

1. Growth can be measured in various ways. Which of

these can be used as parameters to measure growth?

A. Increase in cell number

B. Increase in cell size

C. Increase in surface area

D. All of the above

Answer: D

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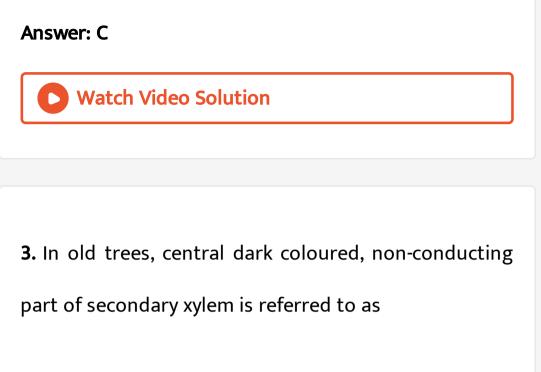
2. Fruits developed form polycarpellary apocarpous ovary of a flower are categorised as

A. simple fruit

B. Composite fruit

C. aggregate fruit

D. multiple fruits



A. heartwood

B. sapwood

C. softwood

D. hardwood

Answer: A

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4. A cell placed in hypertonic solution will

A. Endosmosis

B. Exosmosis

C. Deplasmolysis

D. No change

Answer: B



5. Select the incorrect statement about the essential element :

I. The element may not be necessary for normal growth and reproduction.

II. The requirement of the element must be specific and is replaceable by another element.

III. The element must be directly involved in the metabolism of the plant.

IV. In the absence of the element, the plants do not complete their life cycle.

A. I & II

B. I & IV

C. III & IV

D. I & III

Answer: A



6. Light energy is converted into chemical energy during the light-dependent phase and chemical energy is used to

A. help in the photolysis of water

B. produce ATP and $NADPH_2$

C. reduce carbon dioxide to carbohydrate during

the light-independent phase

D. both (a) and (b)

Answer: C



7. In the electron transport system present in the inner mitochondrial membrane complexes I and IV are respectively

A. NADH dehydrogenase and $FADH_2$

B. $FADH_2$ and NADH dehydrogenase

C. NADH dehydrogenase and cytochrome oxidase

complex

D. NADH dehydrogenase and ATP synthase

Answer: C



8. In an experiment, one set of plants were exposed to the day-night period but with a dark period interrupted by the flash of light did not produce the flower. Such a plant is referred to as

A. long day plants

B. day-neutral plants

C. indeterminate plants

D. short day plants

Answer: D

- 9. Bacteria reproduces by
 - A. binary fission
 - B. producing spores
 - C. a sort of sexual reproduction by adopting a primitive type of DNA transfer from one bacterium to the other.

D. all of these

Answer: D

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10. In Phaeophyceae, the gametes are

A. pyriform and bear 2 flagella (one longitudinal

and another transverse)

B. pear-shaped and bear 2 flagella that are laterally

attached

C. pyriform and bear 2-8, equal and apical flagella

D. pear-shaped and bear 2-8, equal and apical

flagella

Answer: B

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11. All organisms are 'aware' of their surroundings.Hence, all organisms can

A. handle chemicals entering their bodies

B. be self-replicating, evolving and self-regulating

C. arise as a result of interactions among the

molecular components

D. be linked to one another by the sharing of the

common genetic material

Answer: A

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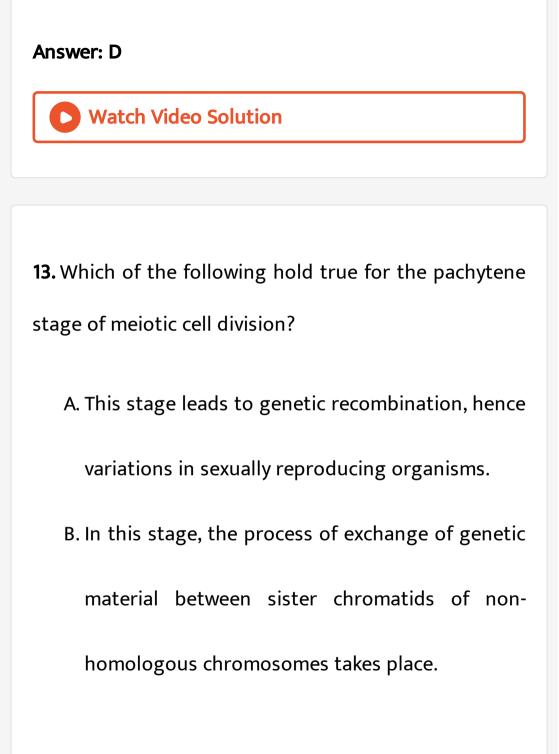
12. Plastids are not found in

A. fungi

B. bacteria

C. blue-green algae

D. all of these



C. This stage takes place only in haploid cells of the

body formation eg. Gametes

D. All of these

Answer: D

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14. Soap box-like overlapping shells are found in the

cell walls of

A. dinoflagellates

B. protozoan

C. diatoms

D. euglenoids

Answer: C



15. Which of the following is not correct?

A. The megaspore mother cell is differentiated from

one of the cells of the nucleus.

B. The megaspore mother cell divides meiotically to

form four megaspores.

C. One of the megaspores enclosed within the megasporangium develops into a multicellular female gametophyte.

D. The multicellular female gametophyte is not

retained within the megasporangium

Answer: D



16. Lysosomes are so-called as they have

A. hydrolytic enzymes

- B. Oxidizing enzymes
- C. respiratory enzymes
- D. carboxylating enzymes

Answer: A



17. The minimum number of chiasmata in a bivalent

is/are

A. One

B. Two

C. Three

D. Four

Answer: A

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18. In guava, cucumber, and ray florets of sunflower, the

ovary is

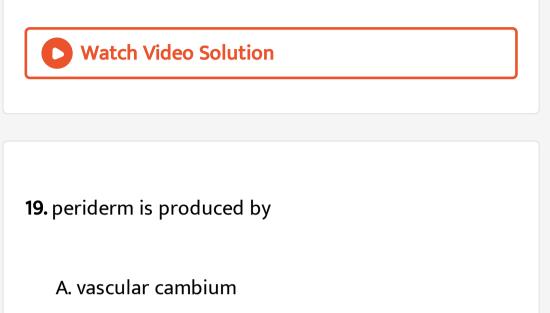
A. superior

B. inferior

C. half inferior

D. half superior

Answer: B



B. fascicular cambium

C. phellogen

D. intrafascicular cambium

Answer: C

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20. Acid concentration in CAM plants is more at

A. night

B. daytime

C. dawn

D. dusk

Answer: A



21. RQ of proteins, carbohydrates, fats and organic acids are in order

A. lt 1, 1, lt 1, gt 1

B. gt 1, lt 1, 1, 1

C. 1,1,0,-1

D. 0, lt 1, 1, gt1

Answer: A

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22. Plant grwoth hormones extracted from a fungus

and a fish are respectively

A. Gibberellins and Zeatin

B. Ethylene and cytokinin

- C. Auxin and 2, 4-D
- D. Gibberellin and kinetin

Answer: D

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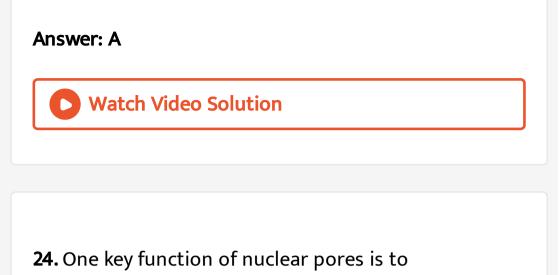
23. In which group of fungi, conidia are produced exogenously on conidiophores?

A. Ascomycetes

B. Phycomycetes

C. Deuteromycetes

D. Basidiomycetes



A. aid in the production of new nuclei

B. allow cells to communicate with each other

C. form connections between different organelles

D. allow molecules like proteins to move in and out

of the nucleus

Answer: D



25. When stamens are attached to perianth, it is known

as

A. epipetalous

B. episepalous

C. gynandrous

D. epiphyllous

Answer: D



26. Which one of the following is CORRECT for Vallisneria?

(1) it grows in freshwater

(2) Female flowers or pollen grains reach the surface by a long stalk

(3) Male flowers are released on the the surface of the water

(4) Pollen grains are carried passively by water currents

A. only 1

B. only 1 and 2

C. only 1, 2 and 3

D. 1,2,3 and 4

Answer: D



27. If an individual having the genotype AaBbCc is selfed, how many squares will be required to determined the genotype of the population by Punnett's checker board method?

A. 8×8 B. 2×2

 $\text{C.}\,4\times4$

D. 1 imes 8

Answer: A



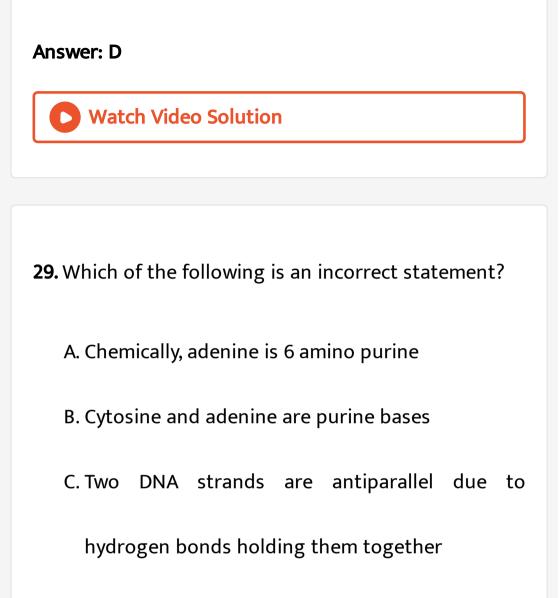
28. In vegetative propagation by tubers, which of following remains constant through generations

A. Morphology

B. Vigour only

C. Vigour and morphology

D. Morphology vigour and disease resistance



D. Pitch of dsDNA is 3.4 nm

Answer: B



30. An $\alpha\text{-}$ globin chain is coded by the gene present on

_____chromosome.

A. 10^{th}

 $\mathsf{B.}\,12^{th}$

 $\mathsf{C.}\,14^{th}$

D. 16^{th}

Answer: D



31. The piece of plant used in tissue culture is called

A. explant

B. somaclone

C. inoculant

D. clone

Answer: A



32. Which of the following statement is CORRECT?

A. Spirullina is a biopesticide.

B. Propionibacterium shermanii is involved in the

formation of Swiss cheese

C. Germinating barley seeds are used in the

preparation of Toddy.

D. Secondary treatment of sewage involves the

vigorous growth of anaerobic microbes into

fiocs.

Answer: B



33. In commensalism,

A. both partners are benefited

B. both partners are harmid

C. weaker is benefited while stronger in unharmed

D. weaker is harmed while stronger is benefited

Answer: C

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34. Which of the following processes of decomposition

produces a substance resistant to microbial action?

A. catabolism

B. mineralisation

C. humification

D. leaching

Answer: C

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35. The junction between ovule and funiculus is called

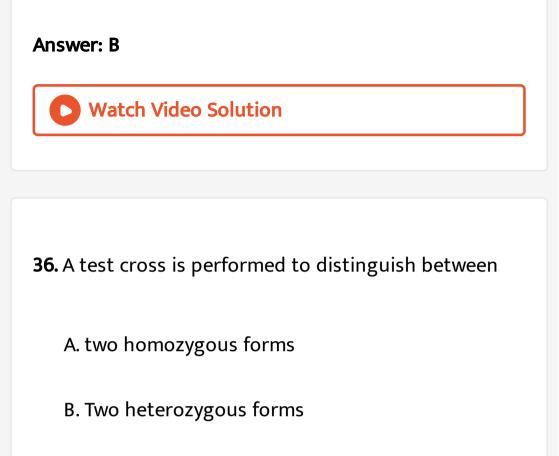
the

A. placenta

B. hilum

C. raphe

D. chalaza



- C. a homozygous dominant and a heterozygous form
- D. a homozygous recessive and the heterozygous form

Answer: C



37. Match Column-I with Column-II and select the

CORRECT option from the codes given below.

	Column-l		Column-II
(1)	River Popper hypothesis	(i)	Alexander
			von
			Humboldt
(2)	Long-term ecosystem	(ii)	David
	experiments using		Tilman
	outdoor plots		Innan
(3)	Species-area	(iii)	Paul
	relationships		Ehrlich

A. (1) - (iii), (2) - (i) , (3) - (ii)

D. (1) - (ii), (2) - (iii), (3) - (i)

Answer: B



38. High value of BOD (Biochemical Oxygen Demand) indicates that:

A. water is highly polluted

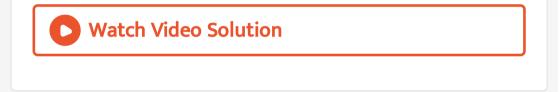
B. water is less polluted

C. consumption of organic matter in the water is

higher by the microbes.

D. water is pure

Answer: A



39. Select the incorrect statement about DNA fingerprinting among the following.

A. It involves identifying differences of repetitive DNA

B. The small peaks formed during the density

gradient of DNA are called satellite DNA

C. Satellite DNA codes for proteins which forms a

large portion of the human genome.

D. Polymorphisms are inheritable from parents to

children

Answer: C

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40. During his experiments with Drosophila, Morgan discovered that

A. the genes for linkage were located on the Y-

chromosome

B. If two genes in a dihybrid cross were situated on

the same chromosome, the proportion of nonparental gene combination were much higher than the parental type

C. The distance between genes couldn't be measured using the frequency of recombination between gene pairs on the same chromosome.D. When genes were grouped on the same chromosome, very tightly linked genes showed

very low recombination while loosely linked

genes showed higher recombination

Answer: D

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41. Which one of the following is not true about antibiotics

A. The first antibiotic was discovered by Alexander

Fleming.

B. The term 'antibiotic' was coined by S. Waksman

in 1942.

C. Some persons can be allergic to a particular

antibiotic.

D. Each antibiotic is effective only against one

particular kind of pathogen.

Answer: D

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42. Exponential growth occurs when there is

A. a great environmental resistance

B. no environmental resistance

C. no biotic potential

D. a fixed carrying capacity

Answer: B

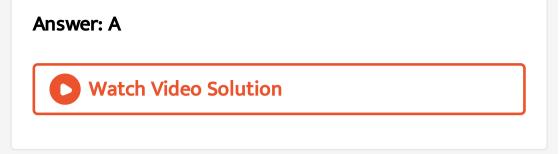
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A. interspecific struggle

B. intraspecific struggle

C. commenslism

D. mutualism



44. Which of the following causes of the Evil Quartet involves the combination loss of a coevolved plant-pollinator mutualism?

A. farmentation

B. alien species invasion

C. over-exploitation

D. co-extinction



45. Sanitary landfill were adopted as the substitute for

A. sewage

- B. biomagnification
- C. eutrophication
- D. open-burning dumps



46. Select FALSE statement from the following.

A. A persistent nucellus is called a perisperm.

B. The integuments of an ovule harden as tough

protective seed coats

C. The micropyle remains as a small pore in the

seed coat and facilitates entry of oxygen and

water into seed during germination.

D. The general metabolic activity of the embryo is

high post-fertilization

47. In pigs, white coat (W) is dominant to black (w). Two white pigs are breed to produce 9 white and 2 black pigs. What are the genotype of the parents?

A. $WW \times WW$

 $\mathsf{B}.\,WW\times Ww$

 $\mathsf{C}.\,Ww\times Ww$

D. ww imes ww

Answer: C

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48. Select the incorrectly matched pair.

A. Denaturation - Separation of DNA strands

B. Okazaki fragments - Lagging strand

C. Avery, Macleod and McCarty-Experimental proof

that DNA replication is semi-conservative

D. High melting point - High G.C content of DNA

Answer: C



49. Gross primary productivity is the

A. rate at which organic molecules are formed in a

heterotroph

- B. rate of consuming organic molecules by an autotroph
- C. rate of storage of organic compounds in an

autotroph

D. rate of formation of organic molecules by an

autotroph

Answer: D

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50. Which of the following is not an invasive alien species in the Indian context?

A. Lantana

B. Cynodon

C. Parthenium

D. Eichhornia

Answer: B



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51. Pollen grains can be preserved as fossil because

A. they vary from species to species

B. they have a wide variety of architecture.

C. their wall is made up of sporopollenin

D. they exhibit a fascinating array of patterns and

design

Answer: C



52. When a wheat variety of red karnels (homozygous for two nonallelic and independent dominant genes) is crossed with white kernelled wheat (homozygous for

two recessive nonalleic independent genes), the phenotypic ratin in ${\cal F}_2$ generation would be

A. 9:7

B. 1:10:4:1

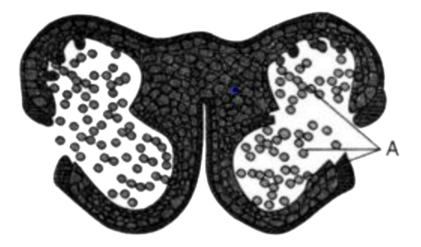
C.1:4:6:4:1

D. 1:2:4:2:4:2:1

Answer: C

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53. What indicates 'A' in the figure below?



A. Pollen grains

B. Pollen sacs

C. Generative cell

D. Vacuoles

Answer: A

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54. Which of the following statements does not hold true for restriction enzyme ?

A. They recognize a palindromic nucleotide sequence

B. All restriction enzymes are endonucleases

C. These enzymes are isolated from viruses and

several eukaryotic protists

D. They produce the same kind of sticky ends in

different DNA molecules.

Answer: C



55. Which of the following epithelium lines the moist surface of the buccal cavity?

A. Pseudostratified non-keratinized squamous

epithelium

B. Stratified non-keratinized squamous epithelium

C. Cuboidal epithelium

D. Stratified columnar epithelium

Answer: B



56. Match the columns :

	Column I		Column II
(a)	Parturition	(p)	Attachment of
			blastocyst to
			endometrium
(b)	Gestation	(a)	Release of egg from
			Graafian follicle.
(c)	Ovulation	(r)	Delivery of baby from
			uterus
(d)	Implantation	(s)	Duration between
			conception and birth
(e)	Conception	(t)	Formation of zygote
			by fusion of egg and
			sperm
			Stoppage of
		` ´	ovulation and
			menstruation

$$(a) - (q), (b) - (s), (c) - (p), (d) - (t), (e) - (r)$$

B. $(a) - (s), (b) - (r), (c) - (p), (d) - (t), (e) - (q)$
C.

$$(a)-(r),(b)-(u),(c)-(q),(d)-(s),(e)-(t)$$

D.

$$(a)-(r),(b)-(s),(c)-(q),(d)-(p),(e)-(t)$$



- **57.** The characteristic feature of anamnestic response is
 - A. a highly intensified strong response which leads

to a high titre of antibodies.

- B. IgM is the dominant antibody in the body
- C. a low intensity of antibodies which takes a

longer time to establish immunity

D. Both (A) and (C)

Answer: A



58. Which one of the following categories of animals, is

correctly described with no single exception in it ?

A. All reptiles posses scales, have a three-

chambered heart and are poikilothermal

- B. All bony fishes have four pairs of gills and an operculum on each side.
- C. All sponges are marine and have collared cells.
- D. All mammals are viviparous and possess diaphragm for breathing.

Answer: B

59. In the internal ear, the 'organ of corti' which bear hair cells is located in

A. sacculus

B. scala media

C. scala tympani

D. scala vestibule

Answer: B



60. The mechanism of action of a steroidal hormone on target cell is established through the

A. formation of secondary messengers

B. activation of transcriptional apparatus.

C. attachement with cytosolic receptor protein

D. regulation of gene expression



61. Total number of facial bones are _____of which _____are paired.A. 14,7

B. 16,5

C. 14,6

D. 16,6

Answer: C



62. Which of the following statements is INCORRECT about Nirodh?

A. Protect the user from contracting AIDS

B. They are used for conception

C. They are used just before coitus so that

ejaculated seman would not enter female

reproductive tract.

D. They are made of thin rubber sheath.

Answer: B



63. In the case of peppered moth (Biston betularia) the black-coloured from became dominant over the light-coloured form in England during industrial revolution. This is an example of

A. Stabilising natural selection

B. Directional natural selection

C. Disruptive natural selection

D. Both (A) and (B)

Answer: B



64. Filling of ventricles with the blood takes place during:

A. Ventricular diastole only

B. Atrial systole only

C. Ventricular and atrial systole

D. Joint diastole and atrial systole

Answer: D

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65. Lipids have a molecular mass of :

- A. Less than 800 daltons
- B. 800-200 daltons
- C. 2000-5000 daltons
- D. greater than 10,000 daltons

Answer: A

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66. In man, during inspiration, the dome-shaped diaphragm becomes:

A. More convex anteriorly

B. More concave posteriorly

C. More or less flat

D. Contract to small size

Answer: C



67. Mark the incorrect statement regarding the head of

the cockroach.

A. It is hypognathous.

B. Formed by the fusion of six embryonic segments

C. Head bears appendages forming biting and

chewing type of mouth parts



membranous sockets lying in front of eyes.

Answer: D

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68. Which group represents external genitalia of human female ?

A. Labia majora, labia minora, oviduct

B. Labia minora, clitoris, vegina

C. Clitoris, labia majora, vagina

D. Labia majora, labia minora, clitoris

Answer: D



69. Read the following statements and find the number of CORRECT statements.

P. Cancerous cells compete with normal cells for nutrients.

Q. With repeated use of drugs, the tolerance level of the receptors present in our body increases.

R. Cocaine enhances the action of the neurotransmitter dopamine.

S. Cannabinoids are abused by sportspersons.

A. One

B. Two

C. Three

D. Four

Answer: B

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70. One of the representative of Phylum arthropoda is

A. Dog fish

B. Flying fish

C. Cuttlefish

D. Silverfish

Answer: D



71. The brain stem is made up of

A. midbrain , pons, cerebellum

B. midbrain, pons, medulla oblongata

C. diencephalon, medulla oblongata, cerebellum

D. cerebellum, cerebrum , medulla oblongata

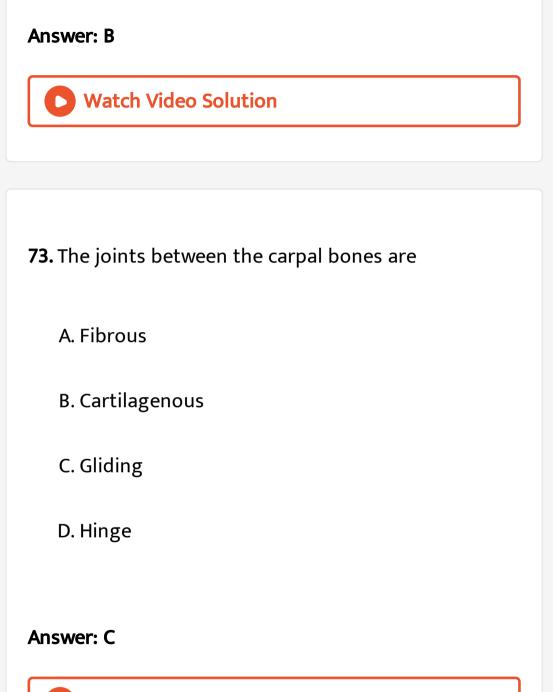
Answer: B Watch Video Solution 72. Which of the following is not a function of insulin ?

A. Increases the oxidation of glucose in the cells

- B. Initiates the conversion of glycogen to glucose
- C. Increases the permeability of cell membrane to

glucose

D. Initiates the formation of animal storage polysaccharide



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74. Amniocentesis is used for determining :-

A. Heart disease of the embryo

B. Brain disease of the embryo

C. Hereditary disease of the embryo

D. All of the above

Answer: C

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75. Which is CORRECT regarding convergent evolution?

ancestry

B. Thorn of Bougainvillea and tendrils of Cucurbita

are examples of convergent evolution

- C. Selection of similar adaptive features in different
 - groups of organisms but towards the same

function is convergent evolution.

D. Homologous organs are result of convergent

evolution.

Answer: C



76. How can you estimate the value of functional residual capacity (FRC) ?

A. TV + IRV

B. ERV + RV

C.VC + RV

D. TV + IRV + ERV

Answer: B



77. Which of the following is correctly paired?

A. Basophils - Are not involved in inflammatory or

allergic reactions

B. Eosinophils - Stained by methylene blue

C. Monocytes - Largest leucocytes

D. Neutrophils - Kidney shaped nucleus

Answer: C

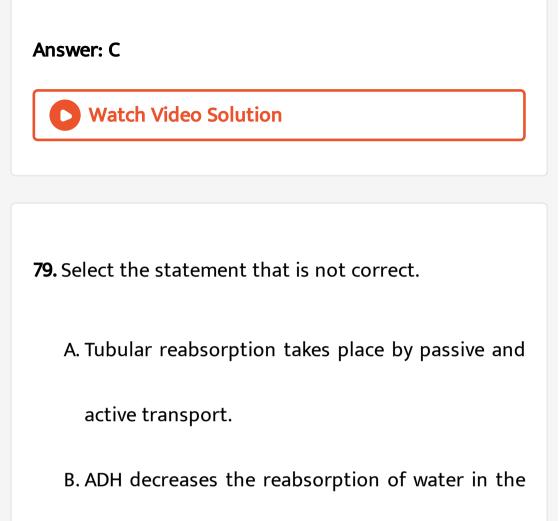
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78. Select the incorrect statement.

A. B.thuringiensis forms protein crystals that contain insecticidal proteins during a particular phase of their growth.

- B. The proteins encoded by the genes crylAc and cryllAb control the cotton bolloworms, that of crylAb controls corn borer.
- C. Bacillus thuringiensis produce proteins that kill certain insects such as lepidopterans (flies , mosquitoes), coleopterans (beetles) and dipterans (tobacco budworm, armyworm).
 D. The activated toxin binds to the surface of

midgut epithelial cells and creates pores.



DCT and collecting duct.

C. Cortical nephrons control plasma volume under

normal water supply.

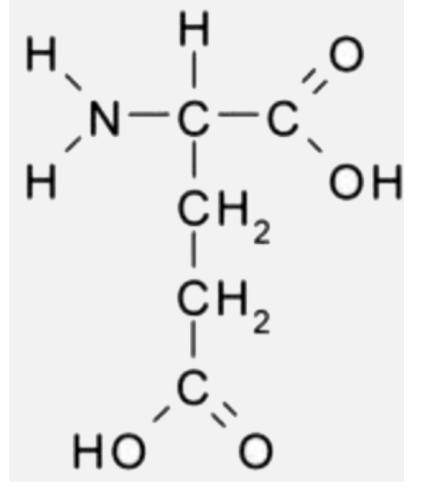
D. A normal adult person secretes about 1.5 liters of

urine in 24 hours.

Answer: B

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80. Under which of the following category, the given structure of amino acid can be classified?

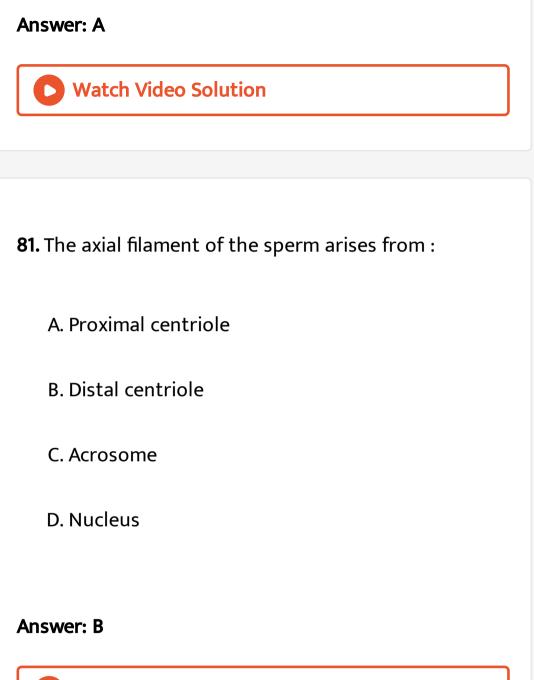


A. Acidic

B. Basic

C. Neutral

D. None of these



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82. Read the statement and choose the correct option(I) Secretion of interferons is a physiological barrier of innate immunity

II. T-lymphocytes are responsible for cell mediated immunity

III. Injection given against snake venom is a type of active immunisation

IV. Antibodies produced during allergic reactions are of

IgA type

A. i and ii are correct

B. ii and iv alone are correct

C. iii along is correct

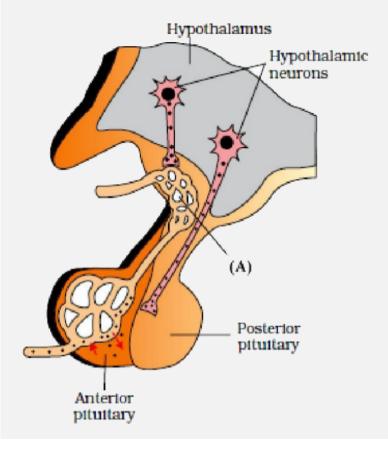
D. ii alone is correct

Answer: D



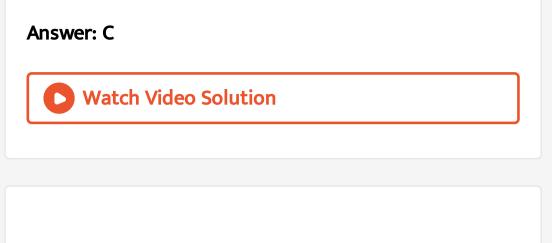
83. Which of the followig hormones passes through

"route-A" shown in the adjacent figure?



A. Oxytocin and vasopressin

- B. TSH and prolactin
- C. GnRH and somatosatin
- D. GH and gonadotropins



84. Land reptiles that went back into water evolve into fish-like reptiles probably 200 mya. Example of such reptile is:

A. Tyrannosaurus rex

B. Ichthyosaurs

C. Archaeopteyx

D. Stegosaurus

Answer: B



85. Which of the following is not a component of

downstream processing

A. Separation

B. Purification

C. Preservation

D. Expression

Answer: D



86. One molecule of glucose and one molecule of galactose form:

A. Lactose

B. Maltose

C. Sucrose

D. Inulin

Answer: A



87. For using Ti plasmid as a vector, researchers have

eliminated its

A. ability of transfer DNA into plants while keeping

its tumour causing properties.

B. ability to cause tumor while keeping its

properties to transfer DNA into plants.

C. ability to transfer DNA into plants while keeping

its insecticidal properties

D. insecticidal properties while keeping its cancer

causing properties.

Answer: B



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88. which of the following statements about human kidneys are incorrect?

 The cortex extends in between the medullary pyramids as renal columns called Columns of Bertini.
 Inside the kidney, there are two zones, an outer cortex and an inner medulla.

III. Towards the centre of the inner convex surface of the kidney is a notch called hilum through which ureter, blood vessels and nerves enter.

IV. Human kidneys extend from the 12^{th} thoracic vertebra to the 5^{th} lumbar vertebra.

A. I and III

B. II and IV

C. III and IV

D. I and II

Answer: C

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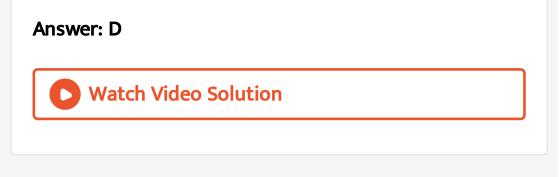
89. The first clinical gene therapy was given for treating :

A. Tetany

B. Rheumatoid arthritis

C. Cystic fibrosis

D. Adenosine deaminase deficiency



90. Liver is the largest gland and is associated with various functions, choose one which is not correct.

A. Formation of urea

B. Digestion of fat

C. Formation of bile

D. Secretion of a hormone called enterogastrone

Answer: D

