

#### **BIOLOGY**

#### **BOOKS - ARIHANT NEET BIOLOGY (HINGLISH)**

#### **SOLVED PAPERS 2017**

#### **Solved Paper 2017 Neet**

- **1.** Which one of the following statements is correct with reference to enzymes
  - A. Apoenzyme= Holoenzyme + Coenzyme
  - B. Holoenzyme = Apoenzyme + Coenzyme
  - C. Coenzyme = Apoenzyme + Holoenzyme
  - D. Holoenzyme = Coenzyme + Cofactor

**Answer: B** 



- **2.** Which cells of 'Crypts of Lieberkuhn' secrete antibacterial lysozyme?
  - A. Argentaffin celts
  - B. Paneth cells
  - C. Zymogen cells
  - D. Kupffer cells

#### Answer: B



- 3. Phosphoenol pyruvate (PEP) is the primary  $CO_2$  acceptor in
  - A.  $C_3$ -plants
  - B.  $C_4$ -plants
  - C.  $C_2$ -plants

D	$C_{2}$	and	$C_4$ -p	lants
٠.	$\sim 3$	arra	~ 4 P	unics

#### Answer: B



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**4.** Which among the following are the smallest living cells, known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen?

A. Bacillus

B. Pseudomonas

C. Mycoplasma

D. Nostoc

#### **Answer: C**



**5.** Out of 'X' pairs of ribs in humans only 'Y' pairs are true ribs. Select the option that correctly represents values of X and Y and provides their explanation

A. X=12,Y=7 True ribs are attached dorsally to vertebral column and ventrally to the sternum.

B. X=12,Y=5 True ribs are attached dorsally to vertebral column and sternum on the two ends.

C. X=24,Y=7 true ribs are dorsally attached to vertebral column, but are free on ventral side.

D. X=24,Y=12 True ribs are dorsally attached to vertebral column, but are free on ventral side.

#### **Answer: A**



**6.** Which of the following cell organelles is responsible for extracting energy from carbohydrates to form ATP?

A. Lysosome

B. Ribosome

C. Chloroplast

D. Mitochondrion

#### **Answer: D**



7. Which of the following are found in extreme saline conditions

A. Archaebacteria

B. Eubacteria

C. Cyanobacteria

D. Mycobacteria

## Answer: A Watch Video Solution

- 8. Receptor sites for neurotransmitters are present on
  - A. membrances of synaptic vesicles
  - B. pre-synaptic membrane
  - C. tips of axons
  - D. post-synaptic membrane

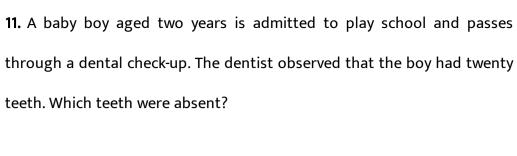
#### **Answer: D**



- 9. The hepatic portal vein drains blood to liver from
  - A. heart

C. kidneys
D. intestine
Answer: D
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<b>10.</b> The water potential of pure water is
A. zero
B. less than zero
C. more than zero, but less than one
D. more than one
Answer: A
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B. stomach



- A. Incisors
- **B.** Canines
- C. Premolars
- D. Molars

#### **Answer: C**



- **12.** Anaphase promoting complex (APC) is a protein degradation machinery necessary for proper mitosis of animal cells. If APC is defective in a human cell, which of the following is expected to occur
  - A. Chromosomes will not condense

- B. Chromosomes wiil be fragmented
- C. Chromosomes will not segregate
- D. Recombination of chromosome arms will occur

#### Answer: C



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- **13.** An important characteristic that hemichordates share with chordates is
- A. absence of notochord
  - B. ventral tubular nerve cord
  - C. pharynx with giil slits
  - D. pharynx without goll slits

#### **Answer: C**



14. Adult human RBCs are enucleate. Which of the following statement (s)
is/are most appropriate explanation for this feature ?
(1) They do not need to reproduce
(2) They are somatic cells
(3) They do not metabolise

(4) All their internal space is available for oxygen transport.

A. Only (IV)

B. Oniy (l)

C. (I), (III))and (IV)

D. (II) and (III)

#### **Answer: A**



**15.** Lungs are made up of air-filled sacs the alveoli. They do not collapse even after forceful expiration, because of

A. Residual Volume (RV)

B. Inspiratory Reserve Volume (IRV)

C. Tidal Volume (TV)

D. Expiratory Reserve Volume (ERV)

#### Answer: A



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**16.** Zygotic meiosis is characteristic of

A. Marchantia

B. Fucus

C. Funaria

D. Chlamydomonas

#### **Answer: D**



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- 17. Select the correct route for the passage of sperms in male frogs
  - A. Testes ightarrow Bidder's canal ightarrow Kidney ightarrow Vase efferentia ightarrow

Urinogen tal duct  $\rightarrow$  Cloaca

B. Testes  $\;
ightarrow\;$  Vasa efferentia  $\;
ightarrow\;$  Kidney  $\;
ightarrow\;$  Seminal vesicle  $\;
ightarrow\;$ 

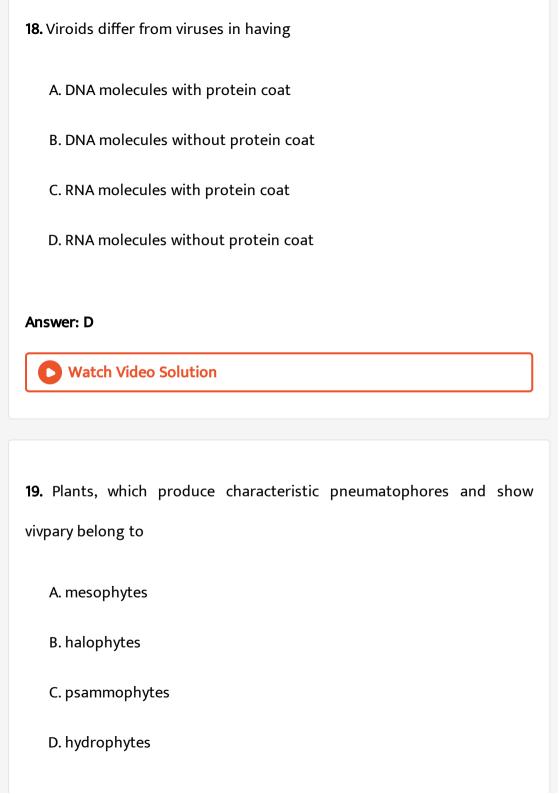
Urinogential duct  $\rightarrow$  Cloaca

- C. Test ightarrow Vasa efferentia ightarrow Bidder's canal ightarrow Ureter ightarrow Cloaca
- D. Testes ightarrow Vasa efferentia rarr Kidney ightarrow Bidders canal ightarrow

Urinogenital duct  $\rightarrow$  Cloaca

#### **Answer: D**





#### Answer: B



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- 20. Indentify the wrong statement in context of heartwood
  - A. Organic compounds are deposited in it
  - B. It is highly durable
  - C. It conducts water and minerals efficiently
  - D. It comprises dead elements with highly lignified walls

#### **Answer: C**



- 21. Which of the following statements is correct?
  - A. The ascending limb of loop of Henle is impermeable to water

- B. The descending limb of loop of Henle to impermeable to water

  C. The ascending limb of loop of Henle is permeable to water
- D. The descending limb of loop of Henle is permeabte to electrolytes

#### **Answer: A**

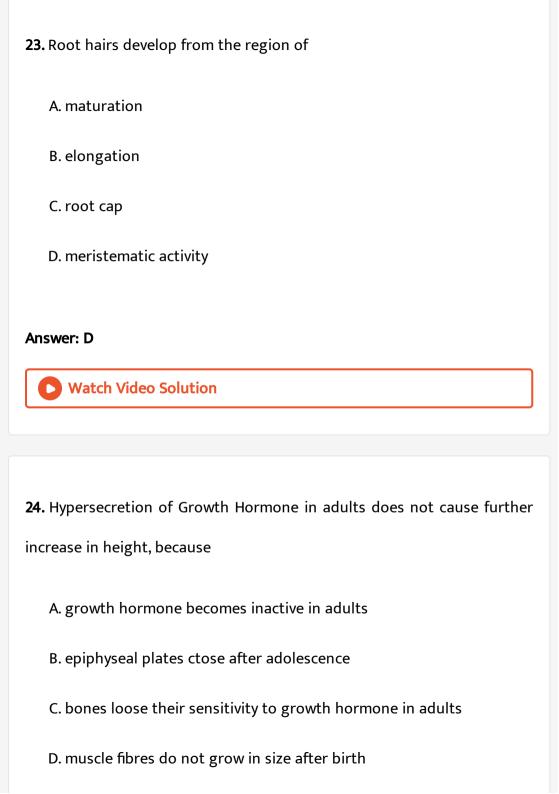


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- 22. An example of colonial alga is
  - A. Chlorella
  - B. volvox
  - C. Ulothrix
  - D. Spirogyra

#### Answer: B





# Answer: B Watch Video Solution 25. Select the mismatch. A. Pinus Dioecious

**B.** Cycas Dioecious

Answer: A

C. Salvinia Heterosporous

D. Equisetum Homosporous

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A. pineal gland

26. A temporary endocrine gland in the human body is

- B. corpus cardiacum

  C. corpus luteum

  D. corpus allatum

  Answer: C

  Watch Video Solution
- **27.** Select the mismatch
  - A. Frankia Alnus
  - B. Rhodospirillum Mycorrhiza
  - C. Anabaena Nitrogen fixer
  - D. Rhizobium Alfa-fa

#### Answer: B



### 28. DNA replication in bacteria occurs A. during S-phase B. within nucleolus C. prior to fission D. just before transcription **Answer: C Watch Video Solution** 29. Which among these is correct combination of aquatic mammals A. Seals, Dolphins, Sharks

B. Dolphins, Seals, Trygon

C. Whales, Dolphines, Seals

D. Trygon, Whales, Seats

## **Answer: C** Watch Video Solution 30. Coconut fruit is a A. drupe B. berry C. nut D. capsule Answer: A Watch Video Solution 31. Which of the following components provides sticky character to the bacterial cell

A. Cell wall B. Nuclear membrane C. Plasma membrane D. Glycocalyx Answer: D **Watch Video Solution** 32. Life cycle of Ectocarpus and Fucus respectivley are A. Haplontic, Dipiontic B. Diplontic, Haplodiplontic C. Haplodiplontic, Diplontic D. Haplodiplontic, Haplontic Answer: C **Watch Video Solution** 

**33.** Good vision depends on adequate intake of cacotene rich food Select the best option from the following statements

- (A) Vitamin A derivatives are formed from carotene
- (B) The photopigments are embedded in the membrane discs of the ineer segment
- (C) Retinal is a derivative of Vitamin A
- (D) Retinal is a light absorbing part of all the visual photopigments
  - A. (I) and (II)
  - B. (I), (III) and (IV)
  - C. (I) and (III)
  - D. (II),(III)and (IV)

#### Answer: B



#### **34.** Which of the following are not polymeric

- A. Nucleic acid
- **B.** Proteins
- C. Polysaccharides
- D. Lipids

#### **Answer: D**



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**35.** With reference to factors affecting the rate of photosynthesis, which of the following statements is not correct ?

- A. Light saturation for  $CO_2$ -fixation occurs at 10% of fun suniight
- B. Increasing atmospheric  $CO_2$  concentration upto 0.05% can

enhance  $CO_2$ -fixation rate

C.  $C_3$  plants respond to higher temperature with enhanced photosyntheis. White  $C_4$  plants have much tower temperature optimum

D. Tomato ts a greenhouse crop, which can be grown in  ${\cal C}O_2$ -enhanced atmosphere for higher yield

#### **Answer: C**



**36.** Fruit and leaf drop at early stages can be prevented by the application of

A. cytokinins

B. ethylene

C. auxins

D. gibberellic acid

## Answer: C Watch Video Solution

**37.** In case of poriferans, the spongocoel is lined with flagellated cells called

- A. ostia
- B. oscula
- C. choanocytes
- D. mesenchymal cells

**Answer: C** 



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**38.** A decrease in blood pressure / volume will not cause the release of

A. renin
B. atrial natriuretic factor
C. aldosterone
D. ADH
Answer: B
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<b>39.</b> Which of the following facilitates opening of stomatal aperture ?
A. Contraction of outer wall of guard cells
B. Decrease in turgidity of guard cells
C. Radial orientation of cellulose microfibrils in the cell wall of guard
cells
D. Longitudinal orientation of cellulose microfibrils in the cell wall of
guard cells

#### **Answer: C**



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- 40. Which statement is wrong for Krebs' cycle?
  - A. There are three points in the cycle where  $NAD^{\,+}\,$  is reduced to

$$NADH+H^+$$

- B. There is one point in the cycle where  ${\it FAD}^+$  is reduced to  ${\it FADH}_2$
- C. During conversion of succinyl Co-A to succinic acid, a molecule of

GTP is synthesised

D. The cycle starts with condensation of acetyl group (acetyl Co-A) with pyruvic acid to yield citric acid

#### **Answer: D**



<b>41.</b> The pivot joint between atlas and axis is a type of			
A. fibrous joint			
B. cantilaginous joint			
C. synovial joint			
D. saddle joint			
Answer: C			
Allswer: C			
Watch Video Solution			
42. Frog's heart when taken out of the body continues to beat for			
sometime .			
Select the best option from the following statements .			
I . Frog is a poikilothem .			
II . Frog does not have any coronary circulation.			
III . Heart is autoexcitable .			
A. Only III			

- B. Only IV
- C. l and II
- D. III and IV

#### Answer: D



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43. Myelin sheath is produced by

or

Mylin of the nerve fibres of the central nervous system is produced and maintained by

- A. Schwann cells and Oligodendrocytes
- B. Astrocytes and Schwann cells
- C. Oligodendrocytes and Osteoclasts
- D. Osteoclasts and Astrocytes

## **Watch Video Solution** 44. The morphological nature of the edible part of coconut is A. perisperm B. cotyledon C. endosperm D. pericarp **Answer: C Watch Video Solution** 45. Which of the following is made up of dead cells A. Xylem parenchyma

Answer: A

B. Collenchyma
C. Phellem
D. Phloem
Answer: C
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<b>46.</b> The vascular cambium normally gives rise to
A. phelloderm
B. primary phloem
C. secondary xylem
D. periderm
Answer: C
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**47.** Which of the following option gives the correct sequence of events during mitosis

A. Condensation o nuclear membrane disassembly o crossing over o segregation o telophase

B. Condensation o nuclear membrane disassembly o arrangement at equator o centromere divison o segregation o telophase

C. Condensation o crossing over o nuclear membrane disassembly o segregation o telophase

D. Condensation o arrangement at equator o centromere divison o segregation o telophase

#### Answer: B



48. Which of the following options best represents the enzyme composition of pancreatic juice?

A. Amylase, peptidase, Trypsinogen, rennin

B. Amylase, pepsin, trypsinogen, maltase

C. Peptidase, Amylase, Pepsin, rennin

D. Lipase, amylase, trypsinogen, procarboxypeptidase

#### Answer: D



#### **Solved Paper 2017 Aiims**

1. In the given diagrams, some of the algae have been labelled as A, B, C, and E. Choose the correct optionts identify these algae.





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- 2. Read the following statement regarding bacteria.
- I. Bacteria exchange their genetic matter through conjugation which involve cell to cell contact.
- II. Transduction in 'Salmonella is reported by Tatum and Lederberg in 1952.

III. Citrus canker disease is caused by bacteria Xanthomonas citri.

IV. Hans Christian gram's staining method is based on cell wall composition of bacteria.

Choose the correct option with true statements

A. I and III

B. I, and III and IV

C. I,II and III

D. II and IV

#### Answer: B



A. Frog
B. Crow
C. Snake
D. Camel
Answer: B
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<b>4.</b> Identify the incorrect option for effects of the red and far red light.
A. Red Light Far Red Light stimulates germination inhibits germination
В.
Red Light inhibits flowering in short day plants stimulates flowering in short

**3.** Among which of the animals urinary bladder is absent?

_	Red Light	Far I	$\operatorname{Red} \operatorname{Light}$	
C.	causes epicolyts hook to unbend	main	tains epicolyts hook bend	
D.				
	Red Light		Far Red Light	
	Inhibits the formation of anthocy	anins		
Answ	er: D			
0	Watch Video Solution			
<b>5.</b> Cla	ssical Taxonomy is based on			
A.	morphological traits			
В.	habitat of organisms			
C. similarities and dissimilarities of behaviour				
D.	phylogeny			
Answ	er: A			
0	Watch Video Solution			

6. Heterocysts present in Nostoc are specialsed for
A. fragmentation
B. nitrogen-fixation
C. symbiotic relation
D. food storage
Answer: B
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7. Which of the following plant growth hormone increases the yield of
sugar by increasing the length of stem in sugarcane?
A. Cytokinin
B. Ethylene
C. Gibberellic acid

## Answer: C



- 8. Identify the correct matched pair
  - A. Exchange of segments of chromatids-Zygotene
  - B. Termilisation of chiasmata-Diakinesis
  - C. Appearance of chiasmata-Leptotene
  - $\hbox{D. Synapsis of homologous chromosomes-Diplotene}\\$

### **Answer: B**



- **9.** The cavity in the region of diencephalon in the brain is called the
  - A. first ventricle

B. second ventricle

C. third ventricle

D. fourth ventricle

### **Answer: C**



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### 10. The modified equation for water potential is

A. 
$$arPsi_w = arPsi_s + arPsi_p$$

B. 
$$arPsi_w = arPsi_s - arPsi_p$$

C. 
$$arPsi_w = arPsi_s$$

D. 
$$arPsi_w = arPsi_p - arPsi_s$$

### Answer: A



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**11.** Which one of the following option is correct regarding digestion of food substrates?



12. Which one is an incorrect match?

A. Giucoma-Abnormal high pressure on liquid of eye

B. Eustachian tube-Connects middle ear cavity with pharynx

C. Caloreceptor-Heat

D. Interoreceptor-Touch

### **Answer: D**



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13. Which one of the following Option is not correctly matched?

A. Cymose Acacia B. Hypanthodium Banyan C. Cyanthium Euphorbia D. Verticillaster Calotropis **Answer: D Watch Video Solution** 14. The desert grasses, often curls their leaf to minimise water loss due to presence of A. spines B. palisade parenchyma C. bundle sheath cells D. bulliform cells Answer: D



15. Refer to the following figures.



- A.  $egin{array}{ccccc} A & B & C \\ 3-II & 1-III & 2-I \end{array}$
- B.  $egin{array}{ccccc} A & B & C \\ 1-II & 3-I & 2-I \end{array}$
- c. A B C 2-III 1-II 3-I
- D.  $\frac{A}{3-I}$   $\frac{B}{2-II}$   $\frac{C}{1-III}$

### **Answer:**



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16. The amino acid derivative among the following hormone is

A. insulin

B. testosterone

C. oestradiol
D. epinephrine
nswer: D
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7. Identify the incorrect match from those given below
A. Jelly fish Aurelia aurita Scyphozoa
B. Paddle worm Chaetopterus Polychaeta

C. Cray fish Oniscus Crustacea

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**Answer: C** 

D. Acom worm Balanoglossus Enteropneusta

18. Which one is correct sequence in glycolysis

A. G-6-P 
$$ightarrow$$
 PEP  $ightarrow$  3-PGAL  $ightarrow$  3-PGA

B. G-6-P  $\,\rightarrow\,$  3-PGAL  $\,\rightarrow\,$  3-PGA  $\,\rightarrow\,$  PEP

C. G-6-P ightarrow PEP ightarrow 3-PGA ightarrow 3-PGAL

D. G-6-P ightarrow 3-PGA ightarrow 3-PGAL ightarrow PEP

### Answer: B



**19.** Match the larval stages (in column I) with there corresponding animals (in column II) a'nd select the correct option.



A. 
$$(i)$$
  $(iii)$   $(v)$   $(iv)$   $I$   $III$   $IV$ 

B. (iii) (iv) (v) (ii) *I II III IV* 

C. (i) (ii) (iii) (iv)

II III IV

**Answer: B** 



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- 20. The contraction of the muscle continues in sliding filament theory
  - A. till ATP binds to myosin head
  - B. till ADP binds to myosin head
  - C. till  $Ca^{2+}$  is present in sarcoplasm
  - D. till polymerisation of myosin head is going on

**Answer: C** 



**View Text Solution** 

21. Mitochondria and chloroplast are believed to be bacterial endoymbiont because

I. they have self nucleic acid

i.e., circular des, DNA and RNAs

II. 70s ribosomes

III. their membrane resembles that of bacteria, having pour proteins.

IV. ETS and ATP forming machienary is present.

A. I and III

B. I,II and III

C. All of these

D. I and IV

### Answer: C



**22.** Which of the following process of urine formation takes place all along the renal tubule and collecting duct?

A. Ultrafiltration and tubular reabsorption

B. Ultrafiltration and tubular secretion

C. Tubular reabsorption and secretion

D. Anti-current mechanism and reabsorption

### **Answer: C**



- 23. Oxy-haemoglobin dissociates into oxygen and deoxy-haemoglobin at
  - A. low  $O_2$  pressure in tissue
  - B. high  $\mathcal{O}_2$  pressure in tissue
  - C. equal  ${\cal O}_2$  pressure Inside and outside tissue
  - D. all times irrespective of  $O_2$  pressure

### **Answer: A**



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**24.** The given below figure shows a generalised life cycle of a fungus. Identify A. B, and C from the given option.



- A.  $\begin{array}{ccc} A & B & C \\ \text{meiosis} & \text{fertilisation meiosis} \end{array}$
- B.  $\frac{A}{\text{meiosis}} \quad \frac{B}{\text{metosis}} \quad \frac{C}{\text{fertilisation}}$
- C. A B C metosis meiosis fertilisation
- D. A B C metosis fertilisation meiosis

### Answer: B



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- A. opening of semilunar valve
- B. closing of semilunar valve
- C. onset of auricular systole
- D. sudden closure of AV vaives

#### Answer: D



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**26.** Assertion The structure given is the most important animal steroid which is insoluble in water and chemically unreactive



Reason It is important because it is a structural component of cells.

- A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion
- B. Both Assertion and Reason are true, but Reason is not the correct
  - explanation of Assertion

- C. Assertion is true, but Reason is false.
- D. Both Assertion and Reason are false.

### **Answer: A**



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**27.** Assertion: In synconous type of fruit, the achenses formed are fewer than the total number of flowers in the inflorescence from which it is formed.

Reason: Upper and middle flowers cannot develop into fruits.

- A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion
- B. Both Assertion and Reason are true, but Reason is not the correct
- explanation of Assertion
- C. Assertion is true, but Reason is false.
- D. Both Assertion and Reason are false.

### **Answer: A**



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**28.** Assertion The structure given below contains 1-4lpha-glycosidic bonds.



Reason This is a polysaccharide and have right end as reducing end and its left end is called the non-reducing end.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: B**



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29. Assertion: Urinary Bladder is lined by transitional epithelium.

Reason: Transitional epithelium keeps the size of the bladder constant at all times.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: C**



**30.** Assertion Gall stone are caused by disturbances in the composition of the bile.

Reason A change in the ratio of liver glycogen and bile salts may result in formation of deposits.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: C**



**31.** Assertion Arteries pump blood away from the heart at very low pressure.

Reason Arteries have thin wall with large lumen.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: D**



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**32.** Assertion Arival of an impulse at the axon terminal stimulates the release of neurotransmitters in synaptic cleft.

Reason These neurotransmitters are responible for the opening of ion channels.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: B**



**33.** Assertion Capillary water is the readily available water to plants.

Reason Capillary water is the thin film of water which is retained around soil particles.

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false.

D. Both Assertion and Reason are false.

### **Answer: C**



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**34.** Assertion Hexokinase require divalent cation  $Mg^{2+}$ 

Reason  $Mg^{2\,+}$  or  $Mn^{2\,+}$  combines with ATP to form  $MgATP^{2\,+}$ 

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion C. Assertion is true, but Reason is false. D. Both Assertion and Reason are false. Answer: A **View Text Solution** Solved Paper 2017 Jipmer 1. Herbicide that blocks electron transport from PS-II to PS-I by inhibiting electron flow between plastoquinone  $\rightarrow$  cytochrome is A. DCMU B. Paraquat C. DCPIP D. None of these

### Answer: A



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2. Statement I Microtubules are formed only in animal cells.

Statement II Microtubules are made up of a protein called myosin.

Choose the correct option

A. Statement I is correct and statement II is incorrect.

B. Statement II is correct and statement I is Incorrect.

C. Both statements are correct.

D. Both statements are incorrect.

### Answer: D



3. Read the functions given below and identify the concerned nutrient.
I. Activator of catalase.
II. Important constituent of cytochrome.
III. Important constituent of proteins involved in ETS. ItBrgt IV. Essential
for chlorophyll synthesis.
A. Cu
B. Fe
C. Ca
D. Mo
Answer: B
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4. Torsion of visceral mass is seen in animals belonging to class
A. Cephalopoda

- B. Scaphopoda
- C. Amphineura
- D. Gastropoda

### Answer: D



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- **5.** A plant is provided with ideal conditions for photosynthesis and supplied with isotope  $.^{14}$   $CO_2$ . When the products of the process are analysed carefully, what would be nature of products
  - A. Giucose and oxygen are labelled
  - B. Oxygen is labelled, but glucose is normal
  - C. Glucose and oxygen are normal
  - D. Glucose is labelled, but oxygen is normal

Answer: D



6. Match the following columns.



- A. A. 2
- ${\sf B.} \ \frac{A}{5} \ \ \frac{B}{3} \ \ \frac{C}{1} \ \ \frac{D}{2}$
- $\mathsf{c.} \, \, \begin{matrix} A & B & C & D \\ 5 & 4 & 1 & 2 \end{matrix}$
- D.  $\begin{pmatrix} A & B & C & D \\ 2 & 5 & 3 & 1 \end{pmatrix}$

Answer: C



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**7.** Fixation of one  $CO_2$  molecule through Calvin cycle requires.

A. 1 ATP and  $2NADPH_2$ 

B. 2 ATP and  $2NADPH_2$ 

D. 2 ATP and  $1NADPH_2$ Answer: C **View Text Solution** 8. Oxygen dissociation curve of haemoglobinis is A. sigmoid B. hyperbolic C. linear D. hypobolic Answer: A

C. 3 ATP and  $2NADPH_2$ 

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<b>9.</b> A hormone, secreted by the endocrinal cells of duodenal mucosa which
influences the release of pancreatic juice is
A. relaxin
B. cholecystokinin

D. progesterone

C. secretin

### **Answer: B**



**10.** Intrinsic and extrinsic pathways of blood clotting are interlinked at the activation steps of which of the following factors?

A. Factor IX

B. Factor IV

C. Factor X

D. Factor XIII-a

### **Answer: C**



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11. Match the storage products listed under column I with the organism given under column II, choose the appropriate option from the given options



- A.  $\frac{A}{3}$   $\frac{B}{4}$   $\frac{C}{1}$   $\frac{D}{5}$ B.  $\frac{A}{4}$   $\frac{B}{3}$   $\frac{C}{5}$   $\frac{D}{4}$ C.  $\frac{A}{5}$   $\frac{B}{4}$   $\frac{C}{1}$   $\frac{D}{3}$
- D.  $egin{array}{ccccc} A & B & C & D \\ 2 & 1 & 4 & 3 \end{array}$

### Answer: C



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# **12.** Globular head of myosin contains

A. calcium ions in large quantities

B. troponin

C. ATPase enzyme

D. ATP

### **Answer: C**



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### 13. Dense regular connective tissue is present in

A. ligament and tendons

B. joint capsule and Wharton's Jelly

C. periosteum end endosteum

D. pericardium and heart valves



- **14.** Note the following features and choose the ones applicable to Wuchereria bancrofti.
- I. Coelozoic parasite
- II. Histozoic parasite
- III. Monogenetic parasite
- IV. Digenetic parasite
- V. Monomorphic, acoelomate parasite
- VI. Dimorphic. pseudocoelomete parasite
  - A. II, III, V
  - B. II, I, VI
  - C. II,IV,VI
  - D. I,III,VI

### Answer: C



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**15.** The first stable product of fixation of atmospheric nitrogen in leguminous plants is

- A.  $NO_2^-$
- B. ammonia
- $\mathsf{C}.\,NO_3^-$
- D. glutamate

### **Answer: B**



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**16.** Which one of the following pairs is not correctly matched

A. Vitamin- $B_{12}$  Pernicious anaemia B. Vitamin- $B_6$  Loss of appetite C. Vitamin- $B_1$  Beri-beri D. Vitamin- $B_2$  Pellagra **Answer: D Watch Video Solution** 

17. Which one of the following generally acts as an antagonist to gibberellins

A. Zeatin

B. Ethylene

C. ABA

D. IAA

Answer: C



18. Ornithine cycle removes two waste products from blood in liver

- A.  $CO_2$  and urea
- B. ammonia and urea
- C.  $CO_2$  and ammonia
- D. ammonia and uric acid

#### **Answer: B**



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19. Macromolecule chitin is

- A. nitrogen containing polysaccharide
- B. phosphorus containing polysaccharide
- C. sulphur containing polysaccharide

D. simple saccharide

#### Answer: A



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**20.** Which of the following statements is correct in relation to the endocrine system?

- A. Adenohypophysis is under direct neural regulation of the hypothalamus
- B. Organs in the body like gastro-intestinal tract, heart, Kidney and liver do not produce any hormones
- C. Non-nutrient chemicals produced by the body in trace amount that act as inter-cellular messenger are known as hormones
- D. Releasing and inhibitory hormones are produced by the pituitary gland.

### Answer: C



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**21.** Taxonomic key is one of the taxonomic tools in the identification and classification of plants and animals. It is used in the preparation of

- A. monographs
- B. flora
- C. Both (a) and (b)
- D. None of these

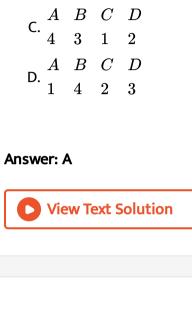
### **Answer: B**



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22. Match the following columns.





A B

B. 2 3 4 1



23. Phellogen and phellem respectively denote

B. cork cembium and Cork

C. secondary cortex and cork

D. cork and secondary cortex

Answer: B

### **24.** Organ of Jacobson helps

A. touch

B. vision

C. smell

D. hearing

#### **Answer: C**



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### 25. Which one correctly describe reproduction and life cycle of fern?

A. Spore o Gamete o Prothallus o Sporophyte

B. Gamete o Spore o Prothallus o Plant

C. Prothallus o Sporophyte o Gamete o Fern

D. Sporangia o Spore o Prothallus o Sporophyte o Plant

### **Answer: D**



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### 26. All monerons

A. contain DNA and RNA

B. demonstrate a long circular strand of DNA, not formed enclosed in

a nuclear membrane

C. are bacteria

D. All of the above

### Answer: D



### 27. Match the following columns



- A.  $\begin{pmatrix} A & B & C \\ 1 & 2 & 3 \end{pmatrix}$
- B.
- A B C
- A B C

### Answer: A



### 28. Sliding filament theory can be best explained as

while myosin filament donet shorten

A. when myofilamente slide pass each other actin filaments shorten

B. actin myosin filaments shorten and slide pass each other

C. actin and myosin filaments do not shorten. but rather slide pass

each other

D. when myofilament slide pass each other myosin filament shorten
while actin filament do not shorten

### **Answer: B**



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- **29.** Select the correct combination of statements regarding Myasthenia gravis
- I. It is an auto immune disorder.
- II. It causes in sufficient ecetylcholine binding that effects muscular contraction.
- III. Antibodies are developed against acetylcholine.
- IV. Antibodies are developed against acetylcholine receptors
- V. It causes drooping of eyelids.

A. I,II,IV,VI

- B. I,III,V,II
- C. I,II,IV,VI
- D. II,III,IV,V

### Answer: C



- **30.** Study the following statements and select the correct option
- (A) Buds are present in the axil of leaflets of the compound leaf
- (B) Pulvinus leaf-base is present in some leguminous plants
- (C) In Alstonia, the petioles expand, become green and synthesize food
- (D) Opposite phyllotaxy is seen in guava.
  - A. I and II
  - B. I and III
  - C. II and III
  - D. I,II and III

### Answer: B



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- 31. Post-mitolic gap phase is characterised by all, except
  - A. syhthesie of RNA and nucleotides
  - B. no change in DNA content
  - C. synthesis of histone proteins
  - D. growth phase of the cell

### **Answer: C**



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**32.** Munch hypothesis is based on

A. translocation of food due to turgor Pressure (TP) gradient and imbibition force

B. translocation of food due to Turgor Pressure (TP) gradient

C. translocation of food due to imbition force

D. None of the above

#### **Answer: B**



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### **33.** Match the following columns



A.  $\begin{pmatrix} A & B & C & D \\ 2 & 3 & 4 & 1 \\ & A & B & C & D \end{pmatrix}$ 

B. A B C D3 4 2 1 $C. <math>A B C D \\ 2 1 3 4$ 

D.  $egin{array}{ccccc} A & B & C & D \ 4 & 3 & 1 & 2 \end{array}$ 

### Answer: A



### **34.** Identify the wrong combination

- A. Dryopteris Rhizome
- B. Cycas Coralloid roots
- C. Volvox Colonial form
- D. Marchantia Pseudoelaters

### **Answer: D**



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35. Foramen ovale

A. connects the two atria in the foetal heart

B. Is a condition in which the heart valves do not completely close

C. is a shallow depression in the inter ventricular septum

D. Is a connection between the pulmonary trunk and the aorta in the foetus.

#### Answer: A

