



# **BIOLOGY**

# **BOOKS - CENGAGE BIOLOGY (HINGLISH)**

# **NEET 2017 PAPER**



**1.** Which of the following are found in extreme saline conditions

A. Eubacteria

B. Cyanobacteria

C. Mycobacteria

D. Archaebacteria

### Answer: D



**2.** Which of the following components provides sticky character to the bacterial cell

A. Nuclear membrane

B. Plasma membrane

C. Glycocalyx

D. Cell wall

Answer: C



3. Viroids differ from viruses in having

A. DNA molecules without protein coat

B. RNA molecules with protein coat

C. RNA molecules without protein coat

D. DNA molecules with protein coat

#### Answer: C



**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. Pseudomonas

B. Mycoplasma

C. Nostoc

D. Bacillus

Answer: B

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5. An example of colonial alga is

A. Volvox

**B. Ulothrix** 

C. Spirogyra

D. Chlorella

# Answer: A

6. Zygotic meiosis is characteristic of

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A. Fucus

B. Funaria

C. Chlamydomonas

D. Marchantia

Answer: C



7. Life cycle of Ectocarpus and Fucus respectivley are

A. Diplontic, Haplodiplontic

B. Haplodiplontic, Diplontic

C. Haplodiplontic, Haplontic

D. Haplontic, Diplontic

#### Answer: B



8. An important characteristic that hemichordates share with

chordates is

A. Ventral tubular nerve cord

- B. Pharynx with gills slits
- C. Pharynx without gill slits
- D. Absence of notochord

#### Answer: B



9. Which of the following represents order of Horse ?

A. Perissodactyla

**B.** Caballus

C. Ferus

D. Equidae

**Answer: A** 



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

A. Oscula

- B. Choanocytes
- C. Menechymal cells
- D. Ostia

Answer: B



**11.** Coconut fruit is a

A. Berry

B. Nut

C. Capsule

D. Drupe

Answer: D

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12. In Bougainvillea, thorns are the modifications of

A. Adventitious root

B. Stem

C. Leaf

D. Stipules

## Answer: B

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13. Root hairs develop from

A. Elongation

B. Root cap

C. Meristematic activity

D. Maturation

Answer: D



14. The morphological nature of the edible part of coconut is

A. Cotyledon

B. Endosperm

C. Pericarp

D. Perisperm

Answer: B



15. The vascular cambium normally gives rise to

A. Primary phloem

B. Secondary xylem

C. Periderm

D. Phelloderm

Answer: B

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16. Which of the following is made up of dead cells

A. Collenchyma

B. Phellem

C. Phloem

D. Xylem parenchyma

Answer: B

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17. Indentify the wrong statement in context of heartwood

A. It is highly durable

B. It conducts water and minerals efficiently

C. It comprises dead elements with highly lignified walls

D. Organic compounds are deposited in it.

#### **Answer: B**

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18. Select the correct route for the passage of sperms in male

frogs

A. Testes  $\rightarrow$  Vasa efferentia  $\rightarrow$  Kidney  $\rightarrow$  Seminal

Vesicle  $\rightarrow$  Urinogenital duct  $\rightarrow$  Cloaca

B. Tests  $\rightarrow$  Vasa efferentia  $\rightarrow$  Bidder's canal  $\rightarrow$  Ureter

ightarrow Cloaca

C. Tests  $\rightarrow$  Vasa efferentia  $\rightarrow$  Kidney  $\rightarrow$  Bidder's canal

ightarrow Urinogenital duct ightarrow Cloaca

D. Tests  $\rightarrow$  Bidder's canal  $\rightarrow$  Kidney  $\rightarrow$  Vasa efferentia

ightarrow Urinogenital duct ightarrow Cloaca

Answer: C

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**19.** 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 a

B. a, c and d

C. b and c

D. Only d

Answer: D

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

A. Ribosome

B. Chloroplast

C. Mitochondrion

D. Lysosome

Answer: C

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21. Which one of the following statements is correct with

reference to enzymes

A. Holoenzyme=Apoenzyme+Coenzyme

B. Coenzyme=Apoenzyme+Holoenzyme

C. Holoenzyme=Coenzyme+Co-factor

D. Apoenzyme=Holoenzyme+Coenzyme

#### Answer: A



22. Which of the following are not polymeric

A. Proteins

**B.** Polysaccharides

C. Lipids

D. Nucleic acids

Answer: C



**23.** Which of the following option gives the correct sequence of events during mitosis

A. Condensation  $\ 
ightarrow$  nuclear membrane disassembly  $\ 
ightarrow$ 

arrangement at equator  $\rightarrow$  centromere division  $\rightarrow$ 

segregation  $\rightarrow$  telephase

B. Condensation  $\rightarrow$  crossing over  $\rightarrow$  nuclear membrane

disassembly  $\rightarrow$  segregation  $\rightarrow$  telephase

C. Condensation  $\rightarrow$  arrangement at equator  $\rightarrow$ 

centromere division  $\rightarrow$  segregation  $\rightarrow$  telephase

D. Condensation  $\rightarrow$  nuclear membrane disassembly  $\rightarrow$ 

crossing over  $\rightarrow$  segregation  $\rightarrow$  telephase

### Answer: A



**24.** 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 be fragmented

B. Chromosomes will not segregate

C. Recombination of chromosome arms will occur

D. Chromosomes will not condense

Answer: B

**25.** Which of the following facilitates opening of stomatal aperture ?

A. Decrease in turgidity of guard cells.

B. Radial orientation of cellulose microfibrils in the cell wall

of guard cells.

C. Longitudinal orientation of cellulose microfibrils in the

cell wall of guard cells.

D. Contraction of outer wall of guard cells.

Answer: B

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26. The water potential of pure water is

A. Less than zero

B. More than zero but less than one

C. More than one

D. Zero

Answer: D



27. Select the mismatch

A. Rhodospirllum-Mycorrhiza

B. Anabaena - Nitrogen fixer

C. Rhizobium - Alfalfa

D. Frankia - Alnus

#### Answer: A



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

A. Increasing atmospheric  $CO_2$  concentration up to 0.05% can enhance  $CO_2$  fixation.

B.  $C_3$  plants respond to higher tempertures with enhanced photosynthesis while  $C_4$  plants have much lower

temperture optimum.

C. Tomato is a greenhouse crop which can be grown in

 $CO_2$ -enriched atmosshere for higher yield.

D. Light saturation for  $CO_2$  fixation occurs at 10% of full

sunlight.

Answer: B

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**29.** PEP is primary  $CO_2$  acceptor in

A.  $C_4$  plants

B.  $C_2$  plants

C.  $C_3$  and  $C_4$  plants

D.  $C_3$  plants

### Answer: A

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30. Which statement is wrong for Krebs' cycle ?

- A. There is one point in the cycle where  $\mathrm{FAD}^+$  is reduced to  $\mathrm{FADH}_2$ .
- B. During conversion of succinyl CoA to succinic acid, a molecule of GTP is synthesised.
- C. The cycle starts with condensation of acetyl group

(acetyl CoA) with pyruvic acid to yield citric acid.

D. There are three points in the cycle where  $\mathrm{NAD}^+$  is

reduced to  $NADH + H^+$ .

# Answer: C

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31. Which of the following prevents falling of fruits

OR

Fruit and leaf drop at early stages can be prevented by the application

A. Ethylene

**B.** Auxins

C. Gibberellic acid

D. Cytokinins

Answer: B

**32.** Which cells of Crypts of Lieberkuhn secrete antibacterial lysozyme ?

A. Paneth cells

B. Zymogen cells

C. Kupffer cells

D. Argentaffin cells

Answer: A



33. Which of the following option best respresents the enzyme

composition of panceratic juice

A. Amylase, pepsin, trpsinogen, maltase

B. Peptidase, amylase, pepsin, rennin

C. Lipase, amylase, trpsinogen, procarboxypeptidase

D. Amylase, peptidase, trypsinogen, rennin

Answer: C



**34.** The Primary denition in human differ from permanent denition is not having one of the folloiwn type of teeth

or

A baby boy aged two years years is admitted to play school and passes through a dental observed that boy that had twenty teeth. Which teeth were absent absent A. Canines

**B.** Pre-molars

C. Molars

D. Incisors

Answer: B

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35. Lungs are made up of air-filled sacs, the alveoli . They do

not collapse even after forceful expiration because of

A. Inspiratory Reserve Volume

B. Tidal Volume

C. Expiratory Reserve Volume

D. Residual Volume

### Answer: D

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36. The hapatic partal vein drains blood to liver from

A. Stomach

B. Kidneys

C. Intestine

D. Heart

Answer: C

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37. Frog's heart when taken out of the body continues to beat

for sometime

Select the best option from the following statements

- (A) Frog is a poikilotherm
- (B) Frog does not have any coronary circulation
- (C) Heart is "Myogenic" in nature
- (D) Heart is autoexcitable

A. Only d

B. a and b

C. c and d

D. Only c

Answer: C

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

release of

A. Atrial Natriuretic factor

B. Aldosterone

C. ADH

D. Renin

Answer: A

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**39.** Which of the following statements is correct ?

A. The descending limb of loop of Henle is impermeable to

water.

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

Answer: D



40. The pivot joint between atlas and axis is a type of

A. Cartilaginous joint

B. Synovial joint

C. Saddle joint

D. Fibrous joint

Answer: B



**41.** 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 = 5 True ribs are attached dorsally to vertebral column and sternum on two ends X = 24 Y = 7 True ribs are dorsally attached to vertebral column but are free on ventral side X = 24 Y = 12 True ribs are dorsally attached to C. vertebral column but are free on ventral side D.

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

Answer: D

**42.** Receptor sites for neuotransmitters are presents on

A. Pre-synaptic membrane

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B. Tips of axons

- C. Post-synaptic membrane
- D. Membranes of synaptic vesicles.

#### Answer: C

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**43.** 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. a, c and d

B. a and c

C. b, c and d

D. a and b

Answer: A

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44. Myelin sheath is produced by

or

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

A. Astrocytes and Schwann Cells

B. Oligodendrocytes and Osteoclasts

C. Osteoclasts and Astrocytes

D. Schwann Cells and Oligodendrocytes

#### Answer: D

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**45.** Hypersecretion of Growth Hormone in adults does not cause further increase in height, because

A. Epiphyseal plates close after adolescence

B. Bones loose their sensitivity to Growth Hormone in

adults

- C. Muscle fibres do not grow in size after birth
- D. Growth Hormone becomes inactive in adults

# Answer: A

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