

BIOLOGY BOOKS - NTA MOCK TESTS

NTA NEET SET 50

Biology

1. Match the column.

	Column I		Column II
(a)	Cristae	/ i \	Flat membranous sacs in
			chloroplast
(b)	Cisternae	(ii)	Infoldings in mitochondria
(c)	Thylakoid	(111)	Disc-shaped sacs in Golgi
			apparatus

Answer: B



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2. Common liverwort umbrella liverwort is a common name for

A. Marchantia

B. Riccia

- C. Funaria
- D. Sphagnum

Answer: A



- **3.** Which of the following structure in the normal human heat generates action potential to initiate a cardiac cycle ?
 - A. AV node
 - B. SA node
 - C. Purkinjefibres

D. Bundle of His

Answer: B



- **4.** Find the appropriate option which justifies all these statements.
- i. Protect the cell by acting a barrier.
- ii. Regulates the transport of substances in and out of the cell.
- iii. Receives chemical messengers from other cells.
- iv. Acts as a receptor.
- v. Cell mobility , secretions , and absorptions of substances.

- A. The nuclear membrane
- B. Endomembranous system
- C. Plasma membrane
- D. All of these

Answer: C



- 5. Read the following statements (A-D)
- A. Coronary Artery Disease is also called atherosclerosis that affects the vessels that supply blood to the heat muscle.
- B. The electrocardiogram (ECG) on graph paper.

During a cardiac cycle, the right ventricle pumps out about 70ml of oxygenated blood which is called stroke volume.

D. The second heart sound is associated with the closure of the semilunar valves.

How many statements from the above is / are incorrect?

- A. Two
- B. One
- C. Four
- D. Three

Answer: B



- **6.** Read the following statements and select the incorrect statements .
- (i) The cytoplasmic increase is not a discontinuous process
- (ii) The cell cycle is not a genetically controlled process(iii) Synthesis phase synthesizes cell organelles only(iv) Interphase is not metabolically inactive
 - A. (i) and (ii)
 - B. (ii) and (iii)
 - C. (iii) and (iv)
 - D. (iii) and (i)

Answer: B



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7. Which of the following option is correct about the excretory system in human ?

A. GFR: 125 ml/day

B. Urine output: 180 litre / day

C. Urea excretion: 25 - 30 mg/day

D. CO_2 removal: 0.9 -1 kg/day/ human

Answer: D



8. The two types of ribosomes are

Nucleus cytoplasm

Free fixed

Endoplasmic reticulum Nucleus

fixed Free

Endoplasmic reticulum Nucleus

C. Free fixed

cytoplasm Nucleus fixed Free

Answer: B



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9. Which of the following is not associated with the innermost mucosa layer of the small intestine?

- A. Goblet cells
- B. Brunner gland
- C. Crypts of Lieberkuhn
- D. Villi and microvilli

Answer: B



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10. How many centromeres are present in a bivalent and how many bivalents are present in a diploid cell of human females respectively?

A. 2 and 46

- B. 23 and 23
- C. 2 and 23
- D. 1 and 23

Answer: C



- **11.** The total volume of air accommodated in the lungs at the end of a forced inspiration is called -
 - A. Total Lung Capacity (TLC)
 - B. Vital Capacity (VC)
 - C. Functional Residual Capacity (FRC)

D. Expiratory Capacity (EC)

Answer: A



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12. Macromolecule chitin is

- A. Nitrogen containing polysaccharide which is homopolymer
- B. Phosphorus containing polysaccharide
- C. Nitrogen and sulphur containing heteropolysaccharide

D. Nitrogen containing polysaccharide which is homopolymer

Answer: A



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13. Residual air mostly occurs in

- A. alveoli
- B. bronchus
- C. nostrils
- D. trachea

Answer: A

14. Based on different functional (R) groups the following amino acids are formed. Select the correct amino acid according to different functional groups.

A.
$$R o H$$
 (glycine)

B.
$$R o CH_3$$
 (alanine)

C.
$$R o CH_2OH$$
 (serine)

D. All the above

Answer: D



15.	'He	helped	discover	evolution,	and	then	become
extinct". This statement refers to							

- A. Wallace
- B. Mendel
- C. Bateson
- D. Lamarck

Answer: A



16. Match the following:

	Column I		Column II
(A)	Origin of the Earth		3 billion
			years ago
(B)	Origin of the Universe	(11)	4.5 billion years ago
	origin of the oniverse		years ago
(C)	Origin of first cellular life form		20 billion
			20 billion years ago
(D)	Origin of first non- cellular life form		2 billion
			2 billion years ago

Answer: C



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17. Select the incorrect statement form the following.

A. Active enzyme has tertiary structure having many active sites (substrate binding sites).

- B. Enzymes are biocatalyst.
- C. Enzymes are highly specific.
- D. Enzymes are mainly protein in nature.

Answer: A



18. In a random mating population in equilibrium, which of the following brings about a change in gene frequency in a non-directional manner?

- A. Migration
- **B.** Mutations
- C. Random drift
- D. Selection

Answer: C



19. In a dorsiventral leaf, location of palisade tissue and phloem is respectively on the ____surfaces.

- A. Abaxial and abaxial
- B. Adaxial and abaxial
- C. Adaxial and adaxial
- D. Abaxial and adaxial

Answer: B



- 20. Read the following four statements (I IV)
- I. All mammals exclusively respire by using lungs except

Balaenoptera.

II. In Aves, the skin is dry without any glands except the sudorific gland at the base of the tail.

III. Chameleon is a camouflaged tree lizard with a prehensile tail.

IV. Amphibia is the only tetrapod vertebrate which has external fertilization with indirect development.

How many statement is / are correct from the above?

- A. Four
- B. One
- C. Three
- D. Two

Answer: D

- 21. In a dicot root, vascular cambium is
 - A. Completely primary in origin
 - B. Partly primary and partly secondary
 - C. Completely secondary in origin
 - D. None of these

Answer: C



22. Find out the correct match in the following : Structure/ Phylum / Function

A. Setae / Cnidaria / Locomotion

B. Amoebocytes / Ctenophora / Defence

C. Parapodia / Annelida / Swimming

D. Sclerites / Mollusca / Respiration

Answer: C



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23. Which of the following is/are the structural character/s of an ecosystem ?

Dominance, species composition, stratification, Nutrient cycle, Food Web complexity, productivity

- A. Dominance, species composition, stratification
- B. Nutrient cycle, Food Web complexity Productivity
- C. Nutrient cycle, Dominance, Productivity
- D. Dominance, Nutrient cycle, Species composition

Answer: A



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24. Soud becomes hazardous noise pollution at level.

A. Above 30 dB

- B. Above 80 dB
- C. Above 100 dB
- D. Above 120 dB

Answer: B



- **25.** The hormone of the thymus gland which hastens the attainment of sexual maturity is
 - A. Thymosin
 - B. Thymopoietin
 - C. Thymulin

D. All of these

Answer: D



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26. Which one of the following pair is incorrectly matched

?

- A. Rhizobium Root nodules of leguminous plants
- B. Baculovirus Nucleopolyhedro virus
- C. Ladybird Beetles aphids
- D. Trichoderma non biocontrol agent

Answer: D

27. Dr. Robert Edwards , Dr . Patrik Steptoe and Dr. Indira Hinduja are famous for their work on

- A. Test tube bady or IVF technique
- B. DNA fingerprinting techniques
- C. ICSI (Intracytoplasmic sperm injection technique)
- D. Discovering Saheli

Answer: A



28. During sewage treatment , which group of microbes are used to reduce BOD of sewage water

- A. Autotrophic, aerobic
- B. Heterotropic, anaerobic
- C. Heterotropic, aerobic.
- D. Heterotropic and autotropic both

Answer: C



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29. What is the final stage of sperm maturation known as

A. Capacitation B. Fertilization C. Spermiation D. Coagulation **Answer: A Watch Video Solution** 30. When solute is mixed in solution, the water potential of the solution A. Increase **B.** Decreases

- C. First increase and the decreases
- D. No change occurs

Answer: B



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Choose the correct option for X and Y.

- A. X: Leyding, Y: Androgens
- B. X: Interstitial, Y: Testicular
- C. X: Sertoli, Y: Inhibin B

D. Both (a) and (b)

Answer: C



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32. During biological nitrogen fixation, inactivation of nitrogenase by oxygen poisoning is prevented by

- A. Xanthophyll
- B. Carotene
- C. Cytochrome
- D. Leghaemoglobin

Answer: D

33. Which of the following layer of uterus exhibits strong contraction during delivery of the bady?

- A. Mesometrium
- B. Myometrium
- C. Endometrium
- D. Perimetrium

Answer: B



34. A,B, and C are respectively:-

Common Name	Man	Housefly	С
Biological Name	A	Musca domestica	Mangifera indica
Genus	Homo	Musca	Mangifera
Family	Hominidae	В	Anacardiaceae

- A. A Homo,
 - B Muscidae,
 - C Neem,
- B. A Homo sapiens,
 - B Muscidae,
 - C Mango,

B - Insecta, C - Mango D. A - Primata, B - Muscidae, C - Mango **Answer: B Watch Video Solution** 35. Which of the following cells of blastocyst acts as a precursor of the embryo?

C. A - Primata,

- A. Trophoblast
- B. Inner cell mass
- C. Stem cells
- D. Both (B) & (C)

Answer: B



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36. In Beijerinek's experiment, what did he call the infectious fluid that he extracted from diseased tobacco plants?

A. Fluidum vivum contagium

- B. Contagium vivum fluidum
- C. Vivum fluidum contagium
- D. Vivum contagium fluidum

Answer: B



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37. In which of the following bacterial diseases , intestinal perforation and death occur in severe cases ?

- A. Anthrax
- B. Tetanus
- C. Typhoid

D. Tuberculosis

Answer: C



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38. How of the following fungi given in the list are known to grow on moist , decaying wood ? Rhizopus , Aspergillus, Trichoderma , Ustilago Albugo , Alternaria, Mucor , Agaricus

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

Answer: A



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- 39. Which of the following is not correctly matched?
 - A. Primary lymphoid organ: Thymus
 - B. Mucosa associated antibody: IgM Vaccination:

Artificial active immunity

- C. Vaccination: Artificial active immunity
- D. Reservoirs of erythrocytes: Spleen

Answer: B



- **40.** Which of the following statement is incorrect?
 - A. Speciation is generally a function time.
 - B. Tropical environment unlike temperate ones are less seasonal.
 - C. Constant environment does not promote niche specialization.
 - D. There is more solar energy available in tropics

Answer: C



41. Match the following:

	Column I		Column II
(1)	IAA	(i)	Herring sperm DNA
(2)	ABA	(ii)	Bolting
(3)	Ethylene	(iii)	Stomatal closure
$\overline{(4)}$	GA	(iv)	Weed-free lawns
(5)	Cytokinin	(v)	Ripening of fruits

A.

$$(1)-(iv),(2)-(iii),(3)-(v),(4)-(ii),(5)-(i)$$

В.

$$(1)-(v),(2)-(iii),(3)-(iv),(4)-(ii),(5)-(i)$$

C.

$$(1)-(iv),(2)-(i),(3)-(v),(4)-(iii),(5)-(ii)$$

D.

$$(1)-(v),(2)-(iii),(3)-(ii),(4)-(i),(5)-(iv)$$

Answer: A



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42. Select the incorrect statement from the following .

A. In some flowing plants, both male and female flowers may be present on same individual, it is monoecious

B. Monoecious plants are cucurbita and coconut .

C. Dioecious plants are papaya and date plam

D. In several fungi and plants homothallic and monoecious are used to denote unisexual condition.

Answer: D



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43. E. colicells with a mutated z gene of the lac operon cannot grow in medium containing only lactose as the source of energy because

A. The lac operon is constitutively active in these cells

- B. They cannot synthesize functional Beta galactosidase
- C. In the presence of glucose, E. coli do not utilize lactose
- D. They cannot transport lactose from the medium into the cell

Answer: B



44. After transcription , which of the following is added to the 3' end of the eukaryotic mRNA ?

B. Cap of modified Guanine nucleotide C. Poly A tail D. Trinucleotide CCA **Answer: C Watch Video Solution 45.** Select the incorrect statement from the following . A. Cistron is segment of DNA coding for a polypeptide. B. The coding sequence or expressed sequences are defined as exons

A. Introns

C. Introns or intervening sequences appears in mature or processed RNA

D. Split gene arrangement is present in eukaryotes.

Answer: C



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46. Which of the following in incorrect about the experiment performed by T.W Engelmann?

A. Cladophora (a green algae) is used to detect the sites of oxygen evolution.

B. Suspension of aerobic bacteria is used .

- C. Bacteria accumulated mainly in the region of orange and green part of the light spectrum.
- D. Prism was used to split light into its spectral component.

Answer: C



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47. What is the processes that creates proton gradient across thylakoid membrane ?

A. Splitting of water molecule on inner side of membrane (towards lumen) .

- B. H+ carrier transport H+ ion from stromal to lumen.
- C. NADH reductase removes H+ ion from stroma for reduction of NADP+
- D. All of the above processes

Answer: D



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48. Match the column:

	Column I		Column II
$\overline{(\mathbf{A})}$	NADH dehydrogenase	(1)	Complex IV
(B)	Cytochrome b c 1	(2)	Complex III
(C)	Cytochrome a, a 3	(3)	Complex I
(D)	ATP synthase	(4)	Complex V

Answer: B



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49. Refer the given equation.

$$2(C_{51}H_{98}O_6) + 145O_2
ightarrow 102CO_2 + 98H_2O + \;\;\; {\sf Energy}$$

The RQ in this case is

A. Palmitin,
$$R.Q = 0.9$$

- B. Tripalmitin, R.Q. = 0.7
- C. Palmitin, R.Q = 1
- D. Tripalmitin, R.Q. = 0.2

Answer: B



- 50. Bagging of emasculated flowers is carried out using
 - A. Bags made of jute
 - B. Bags made of cellophane paper
 - C. Bags made of butter paper
 - D. Bags made of cotton

Answer: C



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- **51.** In the embryos of a typical dicot and a grass, true homologous structures are
 - A. Coleorhiza and coleoptile
 - B. Coleoptile and scutellum
 - C. Cotyledon and hypocotyl
 - D. Cotyledon and scutellum

Answer: D



52. Which structure of synergid attracts pollen tube towards itself by secreting chemotropic substance?

- A. Egg cell
- B. Filliform apparatus
- C. Vegetative nucleus
- D. Antipodals

Answer: B



53. Which of the following is a marine water pollinated plant?

- A. Vallisneria
- B. Hydrilla
- C. Egeria
- D. Zostera

Answer: D



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54. The aperture present in pollen grain is called germ pore where

- A. Exine is present
- B. Both exine and intine are absent
- C. Only exine is absent
- D. Only intine is absent

Answer: C



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55. Which of the following drugs can not be used clinically to help the patient cope with depression and insomnia?

A. Barbiturates

- B. Amphetamines
- C. Benzodiazepines
- D. Cocaine

Answer: D



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56. Klinefelter's syndrome can be easily identified by

- A. PCR
- B. Karyotype
- C. ELISA
- D. RFLP

Answer: B



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- **57.** During translation initiation in prokaryotes, a GTP molecule is needed in :
 - A. association of 50 S subunit of ribosome with initiation complex
 - B. formation of formyl met RNA
 - C. binding of 30 S subunit of ribosome with mRNA
 - D. association of 30 S mRNA with formylmet tRNA

Answer: D

58. If pBR322 cloning vector is cut by Pvu I enzyme for the formation of rDNA then which of its marker gene helps in the selection of recombinants ?

- A. amp^R gene
- B. tet^R gene
- C. gal gene
- D. Both (A) and (B)

Answer: D



59. Person having genotype I^AI^B would show the blood group as AB. Thus is because of

- A. Pleiotropy
- B. Codominance
- C. Incomplete dominance
- D. Lethal effect

Answer: B



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60. In sickle - cell anaemia , the defect is caused by the substitution of(i)by(ii)in the

(iii)......position of the beta - globin chain of the haemoglobin molecule.

A. (i) Val, (ii) Glu, (iii) nineth

B. (i) Glu, (ii) Val, (iii) sixth

C. (i) Val , (ii) Ser , (iii) fifth

D. (i) Gly , (ii) Val , (iii) seventh

Answer: B



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61. What will be the distribution of phenotypic features in the first filial generation if a cross is carried out between

a homozygous female and a heterozygous male for a single locus ?

A. 1:0

B. 1:2:1

C. 1: 1

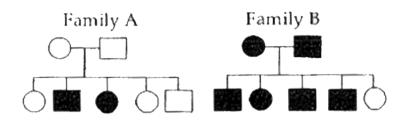
D. both (A) and (C)

Answer: D



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62. Which of the following is true for disease in families A and B?



A. In family A, both the parents are carrier for the sex
- linked recessive disorder.

- B. In family B, both he parents are homozygous for the sex linked dominant disorder.
- C. In family B, both the parents are heterozygous for an autosomal recessive disorder.
- D. In family A, both the parents are heterozygous for an autosomal recessive disorder.

Answer: D

63. How many of the following belong to Kingdom pteridophyta?

Psilotum, Selaginella, Equisetum, Pteris, Pinus, Funaria,

Sphagnum, Cycas, Adiantum

B. Five

A. Four

C. Six

D. Seven

Answer: B



64. Which of the following is not a Basidiomycetes ?
A. Agaricus
B. Ustilago
C. Aspergillus
D. Puccinia
Answer: C
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65. Genetic material of TMV is

A. ds RNA

- B. ssRNA
- C. ssDNA
- D. Proteinaceous

Answer: B



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66. A bacterium divides every 35 minutes. If a culture containing 10^5 cells/ml is grown for 175 minutes. What will be the cell concentration / ml after 175 minutes

- A. $5 imes 10^5$ cells
- B. $35 imes 10^5$ cells

C.
$$32 imes 10^5$$
 cells

D.
$$175 imes 10^5$$
 cells

Answer: C



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67. Which of the following statements above about ozone are not true?

- a) Ozone is formed in the stratosphere.
- b) Ozone is good in the troposphere and bad in the stratosphere.
- c) Ozone depletion is maximum near poles.

A. Only (c)

- B. Only (a)
- C. Only (b)
- D. All of these

Answer: C



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68. Which is correct matched ? 1. Arsenic poisoning -Black foot disease. 2. Secondary Effluent treatment-Biological process. 3. Pyrolysis -Solid soil waste disposal. 4. Tubifex - Water pollution indicator. 5. Biomagnification - Degradable pollutants.

A. I, IV, III and V

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

Answer: D



- **69.** Chernobyl and Three Mile Island are related with Which of the following.
 - A. Air pollution
 - B. Water pollution
 - C. Radioactive pollution

D. Zinc Mining

Answer: C



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70. Which of the following characters are common in plants like Indigofera, Sesbania, groundnut, and gram?

- A. Show zygomorphic flowers
- B. Belongs to family Fabaceae
- C. Shows actinomorphic flowers
- D. Both (a) and (b)

Answer: D

71. When ovules are borne on the central axis and septa are absent as in Dianthus and prime rose the placentation is

- A. Axile
- B. Parietal
- C. Free central
- D. Basal

Answer: C



72. Which of the following floral characteristics is not seen in the floral diagram?

- A. Aestivation of sepals and petals
- B. Placentation
- C. Number of stamens
- D. Position of ovary

Answer: D



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73. Find the correct match.

A. Mustard - $K_{(2+2)}$

- B. Pea $K_{(5)}$
- C. Potato $K_{(5)}$
- D. Chilli C_5

Answer: C



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74. Adaptation is any attribute of the organism (morphological, physiological and behavioral) that enables the organism to

- A. survive in its habitat.
- B. reproduce in its habitat.

- C. survive and reproduce in its habitat.
- D. evolve in its habitat

Answer: C



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75. What does 'R' in EcoRl represent?

- A. gene
- B. species of prokaryotic cell
- C. strain R-245
- D. strain RY 13

Answer: D

76. Which of the following acts as	s "nature's scavengers'
------------------------------------	-------------------------

- A. Man
- B. Seagull
- C. Insects
- D. Microorganisms

Answer: D



77. Which of the following match is correct for the enzyme used to extract DNA?

- A. Plant cell cellulase
- B. Fungus Chitinase
- C. Bacteria Lysozyme
- D. More than one option is correct

Answer: D



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78. Which of the following will be done with a product formed by rDNA technology?

- A. Product has to be formulated with suitable preposition.
- B. Formulation has to undergo clinical trials.
- C. Strict quality control testing is done.
- D. All the above

Answer: D



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79. Golden rice is

A. A variety of rice grown along the yellow river in

China

- B. Long stored rice having the yellow colour tint
- C. Transgenic rice having the gene for β carotene
- D. Wild variety of rice with yellow coloured grains

Answer: C



- **80.** Which of the following is true about RNAi process?
 - A. It is a method of cellular defense.
 - B. It involves silencing of a specific mRNA due to a complementary RNA molecule.

C. The source of complementary RNA in this process may be infection by viruses having RNA genomes.

D. All are true

Answer: D



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81. Which tissue forms the supporting framework for epithelium?

A. Dense connective tissue

B. Lymph

C. Areolar tissue

D. Adipose tissue

Answer: C



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82. In periplaneta americana, the number of Malpighian tubules are

A. 10 - 20

 $\mathsf{B.}\,20-50$

C. 100 - 150

 $\mathsf{D.}\ 200-300$

Answer: C

83. Which of the following is incorrect about the skeletal muscle?

A. Not under direct control of CNS

B. These are primarily involved in locomotion

C. Voluntary nature

D. Possess stripped appearance

Answer: C



84. Statement A: The human skull is monocondylic.

Statement B: Ribs in humans are bicephalic.

- A. Only statement A is correct.
- B. Only statement B is correct.
- C. Both statement A and B are correct.
- D. Both statement A and B are incorrect.

Answer: B



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85. Neurons found in the cerebral cortex are

- A. Myelinated and unipolar
- B. Myelinated and multipolar
- C. Non-Myelinated and unipolar
- D. Non-Myelinated and multipolar

Answer: D



- **86.** Which of the following correctly defines the components of the peripheral neural system?
 - A. Brain + Spinal cord + Somatic neural system
 - B. Somatic neural system + Automatic neural system

- C. Spinal cord + Somatic neural system
- D. Spinal cord + Somatic neural system + Automatic neural system

Answer: B



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87. Which hormone is inhibited by hypothalamic somatostatin?

- A. TSH
- B. GH
- C. ACTH

D. ADH

Answer: B



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88. Select the correct statement.

- A. Pineal gland secretes melatonin
- B. Vasopressin is secreted by kidneys
- C. Endocrine system of invertebrates is very complex
- D. T_3 is secreted from follicular cells of parathyroid glands

Answer: A

89. Out of the following hormones, how many are secreted from adenohypophysis?

[Prolactin, ADH, GH, LH, Aldosterone, MSH, Melatonin, PTH]

A. One

B. Two

C. Three

D. Four

Answer: D



90. Which	part of t	he brain	is	directly	concerned	with	the
control of	heart?						

- A. Cerebrum
- B. Diencephalon
- C. Pons verolii
- D. Medulla oblongata

Answer: D

