



## BIOLOGY

### BOOKS - NTA MOCK TESTS

#### NTA NEET SET 23

#### Biology

1. As far as flowering behaviour of plant is concerned, Neelkuranji and Bambusa do not come along with

- A. Wheat, rice and marigold
- B. Henbane
- C. Radish and carrot
- D. Mango and apple

**Answer: D**



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2. During spermatogenesis, second meiotic division occurs during

- A. Spermatogonia A → Spermatogonia B
- B. Primary spermatocyte → Secondary spermatocyte
- C. Spermatogonia B → Primary spermatocyte
- D. Secondary spermatocyte → Spermatid

**Answer: D**



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	Column A	Column B
P	Male accessory ducts	1 Prostate gland
Q	The external genitalia of female	2 Rete testis
R	Male accessory glands	3 Mons pubis
		4 Labia majora
		5 Vasa efferentia
		6 Epididymis
		7 Bulbourethral glands

3.

A. P - 2, 5, 6, Q - 3, 4, R - 1, 7

B. P - 2, 5, 6, 7, Q - 3, 4, R - 1

C. P - 2, 5, Q - 3, 4, 6, R - 1, 7

D. P - 5, 6, Q - 2, 3, 4, R - 1, 7

**Answer: A**



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4. I. Some of these infections like hepatitis -B and HIV can also be transmitted by sharing injection needles, surgical instruments, etc.

II. The adolescence period is the period between 18 - 25 years of age.

III. Early symptoms of most of the STDs are minor and include itching, fluid discharge, slight pain, swelling, etc., in the genital region.

How many of the above statement are correct?

A. None

B. one

C. two

D. All

**Answer: C**



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5. Select the incorrect match.

A. Beeswax-Used in the preparation of cosmetic and polishes.

B. Mule-it is the result of mating between the male and female animals of two different species.

C. Hilsa, Sardines and Mackerel-Some of the marine fishes that are eaten in our country.

D. Inbreeding-Inbreeding refers to the mating of related individuals of closely related breeds.

**Answer: D**



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## 6. Match the hormone with its functions.

P	Melatonin	I	It plays an important role in the regulation of the basal metabolic rate.
Q	Aldosterone	II	It stimulates the reabsorption of $\text{Na}^+$ and water and excretion of $\text{K}^+$ and phosphate ions.
R	Thyroxine	III	It stimulates reabsorption of $\text{Ca}^{+2}$ by the renal tubules and increases $\text{Ca}^{+2}$ absorption from the digested food.
		IV	It helps in maintaining the normal rhythms of the sleep - wake cycle and body temperature.
		V	It stimulates the breakdown of glycogen resulting in an increased concentration of glucose in the blood.

A. P - IV , Q - I , R - II

B. P - II, Q - IV, R - V

C. P - IV, Q - II, R - I

D. P- II, Q - III, R - V

**Answer: C**



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7. Which among the following is not associated with sewage treatment plant?

A. Biochemical Oxygen Demand

B. Formation of flocs

C. Activated sludge

D. Treatment through scrubber

**Answer: D**



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8. Which of the following statements are correct for the enzyme Taq polymerase?

(i) It remains active during the high temperature .

(ii) It requires primers for carrying out the process of polymerization.

(iii) It induces denaturation of double-stranded DNA.

A. (i) and (ii)

B. (i) and (ii)

C. (i),(ii) and (iii)

D. (ii) and (iii)

**Answer: A**



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**9. Vaccination provides**

- A. Innate passive immunity
- B. Innate active Immunity
- C. Acquired active immunity
- D. Acquired passive immunity

**Answer: C**



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**10. In 1997, the company that got patent rights on Basmati Rice.**



- A. US Patent and Trademark Office
- B. Genetic engineering approval committee
- C. Eli Lilly company
- D. none of these

**Answer: A**

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**11. Angina (or Angina pectoris) is because of**

- A. Insufficient blood supply to heart muscles
- B. Cardiomegaly
- C. Increased blood pressure
- D. Complete cessation of working of heart

**Answer: A**

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12. Red tide is caused due to

- A. Trichodesmium
- B. Gonyaulax
- C. Chlamydomonas
- D. Desmid

**Answer: B**



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13. The sexual reproduction is absent in

- A. Ulothrix
- B. Volvox
- C. Spirogyra

Answer: D



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14. Select the option with a correct representation of an animal belonging to the below mentioned class of vertebrates.

I. The notochord is persistent throughout life. The mouth is ventral.

II. The skin is moist without scales . The tail may be present.

III. 6 to 15 pairs of gill slits. Jaws absent.

IV. Viviparous usually. pinna present in most of the members.

A. *I*          *II*          *III*      *IV*  
Dog fish   Ichthyophis   Calotes   Cains

B. *I*          *II*          *III*      *IV*  
Hagfish   Salamandra   Betta   Aptenodytes

C. *I*          *II*      *III*          *IV*  
Pristis   Hyla   Lamprey   Pteropus

D. *I*          *II*      *III*          *IV*  
Clarius   Rana   Myxine   Delphinus

Answer: C



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15. A member of the plant family which stores food in the endosperm

- A. Graminae
- B. Malvaceae
- C. Solanaceae
- D. Leguminosae

**Answer: A**



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16. Wood is separated from phloem in dicots by

- A. Pericycle
- B. Cortex
- C. Vascular cambium

D. Interfascicular cambium

**Answer: C**



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17. I. In cockroach, each testies extend from 4<sup>th</sup> to 6<sup>th</sup> \_\_\_\_\_ segment.

II. Each compound eye in cockroach consists of about \_\_\_\_\_ hexagonal ommatidia.

Select the correct option.

A. Thoracic, 1000

B. Thoracic, 2000

C. Abdominal , 1000

D. Abdominal , 2000

**Answer: D**



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18. The vacuoles are surrounded by a thin membrane called

A. Plasmodesmata

B. Hydathodes

C. Tonoplasm

D. Tonoplast

**Answer: D**



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19. Pelvic girdle is made up of

A. 6 bones

B. 2 bones

C. 30 bones

D. 4 bones

**Answer: B**



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**20.** For being functional , a protein has to acquire at least

- A. Primary structure
- B. Secondary structure
- C. Tertiary structure
- D. Quaternary structure.

**Answer: C**



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**21.** Which of the following is correct about the electrical synapse

A.

Membranes of pre-and post-synaptic neurons Are in very close proximity	Requirement of neuro yes
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B.

Membranes of pre-and post-synaptic neurons Are in very close proximity	Requirement of neuro No
---	----------------------------

C.

Membranes of pre-and post-synaptic neurons Are not in very close proximity	Requirement of neuro yes
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D.

Membranes of pre-and post-synaptic neurons Are not in very close proximity	Requirement of neuro No
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**Answer: B**



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22. Which stage of prophase I of meiosis lasts for many days?

A. Pachytene

B. Diplotene



C. Diakinesis

D. Leptotene

**Answer: B**



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**23.** For a solution at atmospheric pressure, water potential is

A.  $\Psi_w = \Psi_s + \Psi_p$

B.  $\Psi_w = \Psi_s$

C.  $\Psi_w = \Psi_s - \Psi_p$

D.  $\Psi_w = 0$

**Answer: B**



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24. According to potassium pump theory , which activity will not occur for the opening of stomata ?

- A. Dissociation of malic acid
- B. Passive process of ion exchange
- C. Transport of  $H^+$  ions from guard cells to subsidiary cells
- D. Increased OP of guard cells by potassium malate.

**Answer: B**



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25. Which of the following is a copper -containing protein acting as a mobile electron carrier electron in thylakoid membrane ?

- A. Plastocyanin
- B. Plastoquinone
- C. Pheophytin

D. Cytochrome

**Answer: A**



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**26.** Select the incorrect statements.

A. ABA acts as antagonist to GAs

B. Ethylene can act both as a promotor and an inhibitor of growth activity.

C. Auxin and ethylene promotes apical dominance.

D. ABA promotes seed germination

**Answer: D**



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27. Which of the following substrate is not correctly matched with its end products?

A. Nucleic acids → Sugars and bases

B. Proteins → Amino acids

C. Fats → Monoglycerides

D. Polysaccharides → Monosaccharides

**Answer: C**



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28. During normal inspiration

A. Contraction of diaphragm occurs which increase the volume of thoracic chamber in the antero-posterior axis.

B. Contraction of diaphragm occurs which increase the volume of thoracic chamber in the dorso-ventral axis.

C. Contraction of external intercostal muscle occurs which increases the volume of thoracic chamber in the antero-posterior axis.

D. Contraction of internal intercostals muscle occurs which increases the volume of thoracic chamber in the dorso-ventral axis.

**Answer: A**

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**29.** Which set of animals is ureotelic?

A. Aquatic amphibians and insects

B. Bony fishes and insects

C. Bony fishes and mammals

D. Mammals and terrestrial amphibians

**Answer: D**

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**30.** Out of the 12 pairs of ribs in rib cage of human, how many ribs are true and false, respectively?

- A. 7, 3
- B. 14, 6
- C. 7, 4
- D. 14, 4

**Answer: B**



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**31.** Most of the amino acids used in proteins are produced through

- A. Reductive amination
- B. Transamination
- C. Catalytic amidation

## D. Nitrification

**Answer: B**



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**32.** Which of the following is not applicable for members of the phylum Echinodermata?

A. Habitat - Exclusively marine

B. Symmetry - Adults are radially symmetrical

C. Body system- Presence of canal system due to the folding of the body wall

D. Development - Indirect

**Answer: C**



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33. Which of the following possesses mammary glands?

- A. Struthio
- B. Pteropus
- C. Hemidactylus
- D. Rana

**Answer: B**



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34. Select the correct statement.

- A. Arthropoda is the largest class of kingdom Animalia
- B. Closed type of circulatory system is found in annelids.
- C. Neophrone belongs to class Reptilia
- D. Psittacula is the National bird of India



**Answer: B**



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**35.** Which of the following is a feature of a bony fish?

- A. Placoid scales present
- B. Gills with operculum
- C. Habitant of marine water only
- D. Air bladder absent

**Answer: B**



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**36.** Choose the correct statement about the patterns of biodiversity.

- A. The diversity of plants and animals is uniform and evenly distributed throughout the world
- B. The tropics harbour more species than the temperature or polar regions
- C. Speciation is a function of time as the tropical latitudes have been disturbed by frequent glaciations in the past.
- D. Lesser solar energy in the temperature regions contributes to higher productivity and greater diversity in species.

**Answer: B**



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**37.** Which of the following is the correct set of events involved in the process of decomposition?

- A. Metabolism, Degradation, Leaching, Mineralisation

B. Degradation, Fragmentation, Humification, Mineralisation, Leaching

C. Fragmentation, leaching , Anabolism, Mineralisation

D. Fragmentation, Leaching, Catabolism, Humification, Mineralisation

**Answer: D**



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**38.** The pathogen causing African sleeping sickness belongs to

A. Annelida

B. Arthropoda

C. Mollusca

D. Protoza

**Answer: D**



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39. One can distinguish a leaflet from leaf by the absence of

- A. Midrib
- B. Petiole
- C. Axillary bud
- D. Venation

**Answer: C**



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40. Diploid spores are produced only by

- A. Mosses
- B. Rust causing fungi
- C. Gymnosperms
- D. Angiosperms

**Answer: B**



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**41.** Metagenesis or alteration of generation can be observed in members of phylum

- A. Coelenterata
- B. Platyhelminthes
- C. Arthropoda
- D. Echinodermata

**Answer: A**



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**42.** At which of the following sites is cartilage not found?

- A. Embryonic endoskeleton
- B. Between the cranial bones
- C. Tip of the nose
- D. Between the vertebra

**Answer: B**

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**43.** *Periplaeta americana* is also known as American cockroach. Which of the following information about it is incorrect?

- A. Number of wings = 2 pairs
- B. Number of legs = 3 pairs
- C. Type of circulatory system = closed type
- D. Number of ovaries = 2

**Answer: C**

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44. What is the inference extracted from Griffith's transformation experiments?

- A. Replication of DNA is semi-conservative in nature.
- B. DNA is the genetic material
- C. There is some genetic material, which is responsible for transformation.
- D. Bacteria lacks genetic material.

**Answer: C**

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45. Tendons attach bones to muscles and ligaments attach one bone to another. They are examples of

- A. Areolar tissue
- B. Dense regular tissue
- C. Adipose tissue
- D. Dense irregular tissue

**Answer: B**

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**46.** The frequencies of alleles 'A' and 'a' in a population at Hardy-Weinberg equilibrium are 0.7 and 0.3, respectively. In a random sample of 250 individuals taken from the population, how many are expected to be heterozygous?

- A. 112
- B. 81
- C. 105
- D. 145



**Answer: C**



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**47.** Which of the following is a characteristic of an early community?

- A. Narrow niche specialization.
- B. High species diversity
- C. High community production
- D. Dense food web

**Answer: A**



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**48.** Which hormone acts on the gastric glands, and stimulates the secretion of hydrochloric acid and pepsinogen?

- A. Renin
- B. Glucagon
- C. Insulin
- D. Gastrin

**Answer: D**

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**49.** Which of the following is synthesized by pars nervosa of the pituitary gland?

- A. ADH but not oxytocin
- B. Oxytocin but not ADH
- C. Both oxytocin and ADH
- D. Neither oxytocin, nor ADH

**Answer: D**

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50. How does the pollen tube enter the embryo sac during double fertilization?

- A. Through one of the synergids
- B. By penetrating eggs
- C. By destroying antipodal cells
- D. Between synergid and central cell

**Answer: A**

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51. Which of the following is the correct sequence of the layers in a typical monocot root (from the outer surface to the pith) ?

- A. Pericycle, cortex, endodermis, epiblema.

- B. Epiblema, endodermis, cortex, pericycle.
- C. Epiblema, cortex, endodermis, pericycle
- D. Epiblema, pericycle, cortex, endodermis

**Answer: C**

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**52. Which of the following organelles is bound by the tonoplast?**

- A. Golgi complex
- B. Endoplasmic reticulum
- C. Vacuoles
- D. Lysosomes

**Answer: C**

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53. Select the correct statement from the following.

- A. Nissi's granules are found in cell body and dendrites
- B. Axonal membrane is more permeable to  $Na^+$  at resting state.
- C. The autonomic nervous system transmits impulses from the CNS to the voluntary muscles and organs of the body
- D. Typical neurous in PNS are non myelinated

**Answer: A**



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54. Which of the following will shift the oxyhaemoglobin dissociation curve to right?

- A. Increased  $CO_2$
- B. Decreased acidity
- C. Increased pH

D. Decreased temperature

**Answer: A**



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55. The difference between xylem of angiosperms and gymnosperms is that, in gymnosperms is that, in gymnosperms

- A. Vessels are present
- B. Vessels are absent
- C. Tracheids are absent
- D. Tracheids are present

**Answer: B**



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56. Which of the following plants has flowers which provide insects with a safe place for laying eggs?

- A. Amorphophallus
- B. Vallisneria
- C. Zostera
- D. All of these

**Answer: A**



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57. Which of the following is not a feature of the cortical nephron?

- A. Vasa recta are absent
- B. Shorter loop of Henle
- C. Fewer in number
- D. Slower rate of filtration

**Answer: C**



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**58.** From the underground part of the main stem, oblique branches may arise and come out of the soil to give rise to leafy shoots in

- A. Banana and Mint
- B. Chrysanthemum and Pineapple
- C. Mint and Jasmine
- D. Strawberry and Mint

**Answer: B**



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**59.** When ground slurry of living tissue is strained through a cheesecloth, the filtrate is obtained. Select the correct statement regarding the



filtrate.

- A. It is acid soluble fraction.
- B. It possess inorganic compounds only
- C. It is a mixture of macromolecules and micromolecules.
- D. Only 4 compounds are obtained

**Answer: A**



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**60.** Which of the following is not the part of Heavy Meromyosin (HMM) ?

- A. Globular head
- B. Short arm
- C. Binding site for actin
- D. Binding site for Tropomyosin

**Answer: D**



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61. The group of cell initials for tissue culturing is called

- A. Callus
- B. Hybrid
- C. Sub-culture
- D. Explant

**Answer: D**



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62. PCR is a cyclic process that is used to amplify the DNA fragments. During the amplification, number of cycles is generally kept between 30 - 40 cycles. How many number of DNA strands will be produced if the number of cycles were kept 10 ?

A. 512

B. 20

C. 256

D. 1024

**Answer: D**



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**63.** Duration of lactational amenorrhoea may extend upto

A. 1 month

B. 15 days

C. 6 months

D. 5 years

**Answer: C**



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64. Splitting of centrometer of a chromosome during cells division occurs in

- A. Metaphase
- B. Anaphase
- C. Prophase
- D. Telophase

**Answer: B**



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65. Select the mismatched pair.

- A. FSH secretion- stimulate Sertoli cells
- B. Secretion of relaxin in the later phase of pregnancy - Human placenta

C. Diaphragms, cervical caps and vaults - Physical barriers of contraception

D. Human egg- Fertilization in fallopian tube

**Answer: B**

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66. During embryonic development, the total cell cycle time for a given cell type can change. These are primarily due to variation in

A.  $G_1$  phase

B.  $G_2$  phase

C. M phase

D. S phase

**Answer: A**

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67. In leguminous plants, there exists a symbiotic association between the plant and the bacterium. Choose the correct statement regarding this.

- A. The bacteria derive reduced  $N_2$  from plant
- B. The bacteria supply reduced  $N_2$  to plant and receive sugars from plant
- C. The nodule is produced by the plant independent of bacteria
- D. The plant growth is inhibited by the factor produced by bacteria

**Answer: B**



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68. In which of the following, placenta development can not be seen?

- A. Human
- B. Columba

C. Horse

D. Cattle

**Answer: B**



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**69.** Read the following statements :

A. Meiosis I is completed during the conversion of the secondary follicle into the tertiary follicle.

B. Meiosis I in oogenesis is an unequal division.

How many of the given statements are Incorrect?

A. None

B. one

C. two

D. all

**Answer: A**



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70. The sugar present in milk is

- A. Sucrose
- B. Fructose
- C. Lactose
- D. Glucose

**Answer: C**



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71. Which one of the following processes results in the formation of a clone of bacteria?

- A. Conjugation
- B. Binary fission



C. Transduction

D. Transformation

**Answer: B**



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**72.** Which of the following organisms invaded the land first?

A. Plants

B. Coelacanth

C. Amphibians

D. Reptiles

**Answer: A**



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73. Identify the correct answer with respect to RNA interference (RNAi)

P. It is an event of post-transcriptional gene silencing

Q. It works through RNA induced silencing complex

A. P only

B. Q only

C. Both P and Q

D. neither P nor Q

**Answer: C**



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74. A competitive inhibitor of an enzyme

A. Decreases the  $k_m$

B. Decreases the  $V_{max}$

C. Decreases both the  $K_m$  &  $V_{max}$

D. Increases the km

**Answer: D**



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**75.** Which of the following is incorrect about Darwinian variations?

A. Results in gradual evolution

B. small variations

C. directional variations

D. Discontinuous variations

**Answer: D**



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76. Which of the following families are included under order Polymoniales?

- A. Fabaceae
- B. Convolvulaceae
- C. Liliaceae
- D. More than one option is correct

**Answer: B**



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77. Which of the following is a division in taxonomical hierarchy?

- A. Dicotyledonae
- B. Angiospermae
- C. Diptera
- D. Sapindales

**Answer: B**



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**78.** Which of the following is not an infectious disease ?

- A. AIDS
- B. Cancer
- C. Hepatitis-B
- D. Typhoid

**Answer: B**



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**79.** In a relationship of Lichen, fungal partner is called

- A. Metabiont

B. Phycobiont

C. Mycobiont

D. Probiiont

**Answer: C**



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**80.** Which antigen is responsible for erythroblastosis foetalis?

A. Antigen A

B. Antigen B

C. Rh antigen

D. Antigen O

**Answer: C**



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81. The length of one complete turn of a DNA double helix is -

A. 3.4 Å

B. 34 Å

C. 3.6 Å

D. 36 Å

**Answer: B**



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82. RQ of fats and proteins is generally

A. 1

B. lt 1

C. gt 1

D. ∞

**Answer: B**

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**83.** DPT vaccine provides immunity against all of the following diseases, except

- A. Pertussis
- B. Diphtheria
- C. Tuberculosis
- D. Tetanus

**Answer: C**

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**84.** In a TCA cycle, how many  $NADH_2$  and  $FADH_2$  are produced, respectively?



A.  $3NADH_2$ ,  $1FADH_2$

B.  $2NADH_2$ ,  $1FADH_2$

C.  $4NADH_2$ ,  $1FADH_2$

D.  $4NADH_2$ ,  $2FADH_2$

**Answer: A**



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**85. Sustainable agriculture does not include**

A. Ecofriendly cropping

B. Green revolution

C. IPM

D. Biological control

**Answer: B**



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**86.** LAB stands for

- A. Lactic acid bacteria
- B. Lactobacillus basophilus bacteria
- C. Lactose acetaldehyde bacteria
- D. Laboratory

**Answer: A**



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**87.** Which of the following is commonly called catecholamines?

- A. Mineralocorticoids
- B. Glucocorticoids
- C. Adrenaline

D. More than one option as correct

**Answer: C**



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**88.** Which of the following is correct about imbibition?

- A. It is a kind of facilitated diffusion.
- B. The affinity between the adsorbant and the liquid is not a requisite.
- C. Absorption of liquid by seeds and wet wood is an classical example of it.
- D. None of the above

**Answer: D**



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89. Which plant has been used to study cytoplasmic streaming?

A. Spirulina

B. Hydrilla

C. Chlorella

D. Eichhornia

**Answer: B**



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90. Species that have maximum influence on the ecosystem are called

A. Sympatric species

B. Keystone species

C. Sibling species

D. Predator species

**Answer: B**



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