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MHT CET 2024
Question Paper
Shift 1 4th
May(Biology)



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1.

In lac-operon, the switching-on or switching-off of the operator is achieved by _____.

- (A) transacetylase
- (B) β -galactosidase
- (C) permease
- (D) regulator protein

2.

Which one of the following does NOT have any significance in crossing over of chromosomes?

- (A) Recombination of genes
- (B) Variations
- (C) Determination of sex
- (D) Natural selection

3.

Which of the following is NOT an organ of ammonotelic excretion?

- (A) Gills
- (B) General body surface
- (C) Malpighian tubules
- (D) Kidney

4.

Which one of the following 'geological period' is known as 'age of reptiles'?

- (A) Cretaceous
- (B) Jurassic
- (C) Carboniferous
- (D) Permian



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5.

Given below are two statements:

Statement I – The joint between a tooth and jaw bone is gomphosis.

Statement II – Human beings have different kinds of teeth, hence it is described as diphyodont dentition.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

6.

_____ is a non-biodegradable substance which keeps the pollens resistant to chemicals.

- (A) Chitin
- (B) Sporopollenin
- (C) Cellulose
- (D) Pectin

7.

The uptake of K^+ and Cl^- ions at night is prevented by which acid to change the permeability of guard cells?

- (A) NAA
- (B) IAA
- (C) ABA
- (D) IBA



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8.

The number of base pairs present in the nucleoid of *E. coli* is _____ millions.

- (A) 2.3
- (B) 3.3
- (C) 4.6
- (D) 6.6

9.

Nasal cavity of humans is divisible into right and left nasal chambers by _____.

- (A) thyroid cartilage
- (B) hyoid bone
- (C) thyrohyoid membrane
- (D) mesethmoid cartilage

10.

Match column I with column II:

Column I (Product)

- i. Citric acid
- ii. Fumaric acid
- iii. Gluconic acid

Column II (Use)

- a. In medicine for solubility of Ca^{2+}
- b. In confectionary
- c. In resins as wetting agent

- (A) i-b, ii-c, iii-a
- (B) i-b, ii-a, iii-c
- (C) i-c, ii-b, iii-a
- (D) i-c, ii-a, iii-b



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11.

Movement of larynx and shoulder is controlled by _____ cranial nerve.

- (A) Vagus
- (B) Spinal accessory
- (C) Glossopharyngeal
- (D) Abducens

12.

Which one of the following is an example of thermophilic enzyme used in PCR?

- (A) Methylase
- (B) Restriction endonuclease
- (C) Taq polymerase
- (D) Protease

13.

Select the INCORRECT statement regarding CSF.

- (A) It acts as shock absorber.
- (B) It protects CNS from mechanical injuries.
- (C) It increases pressure inside the cranium.
- (D) It helps in supply of oxygen to brain.

14.

Which one of the following is NOT a risk associated with amniocentesis?

- (A) Miscarriage
- (B) Detection of chromosomal abnormalities



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- (C) Needle injury to foetus
- (D) Leaking amniotic fluid

15.

To induce early flowering in plants, pre-treatment of seeds or seedlings is done at _____ °C temperature.

- (A) 1 – 6
- (B) 10 – 13
- (C) 14 – 20
- (D) 20 – 30

16.

Flowers are dull coloured with strong fragrance in _____.

- (A) chiropterophily
- (B) ornithophily
- (C) anemophily
- (D) hydrophily

17.

Select the correct path of intra-renal circulation from the following:

- i. peritubular capillaries
- ii. glomerular capillaries
- iii. renal venule
- iv. renal arteriole
- v. efferent arteriole

- (A) iii → i → iv → ii → v
- (B) iv → ii → v → i → iii
- (C) iii → iv → i → ii → v
- (D) iv → i → ii → v → iii



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18.

Given below are two statements regarding oxidation of reduced coenzymes formed during glycolysis, acetylation and TCA cycle:

Statement I – During oxidation of $\text{NADH} + \text{H}^+$ and FADH_2 , electrons and protons are released.

Statement II – Electrons are passed through various electron carriers and they finally are transferred to molecular oxygen.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

19.

What is effect of increase in substrate concentration on the enzymatic reaction?

- (A) It continuously increases the rate of reaction.
- (B) It decreases the rate of reaction.
- (C) It has no effect on the rate of reaction.
- (D) It increases the rate of reaction within a limited range.



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20.

Given below are two statements:

Statement I – Chromosomes are present in eukaryotic nucleus.

Statement II – Chromosomes are visible during cell division.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

21.

Match column I with column II and select the correct option:

Column I (Type of WBC)

- i. Lymphocyte
- ii. Eosinophils
- iii. Basophils
- iv. Neutrophils
- v. Monocytes

Column II (Percentage)

- a. 1% to 3%
- b. About 70%
- c. 3% to 5%
- d. 25% to 30%
- e. 0.5% to 1%

- (A) i-d, ii-a, iii-e, iv-b, v-c
- (B) i-e, ii-d, iii-c, iv-a, v-c
- (C) i-a, ii-d, iii-c, iv-e, v-b
- (D) i-d, ii-e, iii-a, iv-c, v-b



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22.

Which one of the following is universal initiation codon?

- (A) AAG
- (B) AUG
- (C) UAA
- (D) UAG

23.

The enzyme which destroys the neurotransmitter after the transfer of impulse across the synapse is _____.

- (A) cholinesterase
- (B) transacetylase
- (C) enterokinase
- (D) synthetase

24.

During sewage treatment activated sludge is digested by _____.

- (A) coliform organisms
- (B) flocs
- (C) aerobic bacteria
- (D) anaerobic bacteria

25.

Ti plasmid is used as vector in genetic engineering for making transgenic plants. This plasmid is found in _____.

- (A) Rhizobium
- (B) Escherichia coli
- (C) Agrobacterium
- (D) Azotobacter



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26.

In nature, flowers and their pollinator species are tightly linked with one another. This example involves _____.

- (A) parasitism
- (B) commensalism
- (C) co-evolution
- (D) competition

27.

The ability to perceive stimulus and to enter a state of activity is the property of nerve fiber. It is called _____.

- (A) Irritability
- (B) Conductivity
- (C) Velocity
- (D) All or none law

28.

In Maharashtra, a 24 hours toll free helpline number 1926 has been set up to provide information regarding _____.

- (A) Covid-19 cases in each district
- (B) tree plantation, protection and mass awareness
- (C) atrocities against women and girl child
- (D) child labour

29.

Select the INCORRECT statement with respect to degree of saturation of haemoglobin with O_2 .

- (A) Relationship between HbO_2 saturation and O_2 tension (pO_2) is called oxygen dissociation curve.
- (B) 100% saturation of Hb with O_2 is rare.
- (C) Degree of saturation decreases with increase in partial pressure of O_2 (pO_2).



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(D) Only 50% saturation can be maintained at 30 mmHg of pO_2 .

30.

Which one of the following is the most widely accepted theory to explain the mechanism of translocation of water in plants?

- (A) Root pressure
- (B) Cohesion – tension
- (C) Capillarity
- (D) Relay pump

31.

Which animal excretes nitrogenous waste by diffusion through body surface?

- (A) Sponge
- (B) Liver fluke
- (C) Crab
- (D) Ant

32.

Given below are two statements with respect to amniocentesis:

Statement I – Amniocentesis is a process in which amniotic fluid containing foetal cells is collected using a hollow needle inserted into the uterus.

Statement II – X-rays imaging is used to determine the position of the foetus in the uterus.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.



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33.

Which one of the following is NOT a significance of polyembryony?

- i. Polyembryony increases the chance of survival of the new plants.
- ii. Nucellar polyembryony is greatly useful in horticulture.
- iii. Seedless fruits are formed.
- iv. Genetically identical plants are produced due to cleavage polyembryony.

- (A) i and ii only
- (B) iii only
- (C) i and iii only
- (D) iv only

34.

In which of the following reactions of Krebs cycle substrate level phosphorylation occurs?

- (A) Oxalosuccinic acid \rightarrow α -Ketoglutarate
- (B) α -Ketoglutarate \rightarrow Succinyl CoA
- (C) Succinyl CoA \rightarrow Succinate
- (D) Fumarate \rightarrow Malate

35.

Given below are two statements:

Statement I – Acinar cells of pancreas secrete insulin.

Statement II – The delta (δ) cells of pancreas secrete somatostatin.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.



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36.

The specific region of enzyme which combines with the substrate is called _____ site.

- (A) passive
- (B) active
- (C) promoter
- (D) inhibition

37.

Based on the following statements choose the correct option:

Statement I – Ecological succession focuses on changes in vegetation.

Statement II – As succession proceeds, the number and types of animals also change.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

38.

Match the disorder of circulatory system in column I with their respective symptom in column II:

Column I

- i. Hypertension
- ii. Angina pectoris
- iii. Arteriosclerosis
- iv. Atherosclerosis

Column II

- a. Inelasticity of arteries due to hardening of their walls
- b. Deposition of fats like cholesterol in arteries
- c. Severe pain and heaviness in chest due to reduction in blood supply



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to heart muscles

d. Persistently increased blood pressure above normal value

(A) i-d, ii-c, iii-a, iv-b

(B) i-b, ii-d, iii-a, iv-c

(C) i-a, ii-c, iii-b, iv-d

(D) i-c, ii-d, iii-b, iv-a

39.

In a pond ecosystem, the consumers are the following EXCEPT _____.

(A) zooplankton

(B) aquatic insects

(C) fungi and bacteria

(D) fish

40.

Following are the properties of hormones EXCEPT _____.

(A) acts as chemical messengers

(B) hypo or hyper concentrations lead to disorders

(C) required in low concentration and act as catalysts

(D) either inhibit or stimulate a specific process

41.

Which of the following organisms requires two hosts to complete life cycle?

i. *Plasmodium vivax*

ii. *Wuchereria bancrofti*

iii. *Entamoeba histolytica*

iv. *Ascaris lumbricoides*

v. *Trichophyton*

(A) i, ii and iii only

(B) i, ii and iv only

(C) iii, iv and v only

(D) i and ii only



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42.

Given below are two statements:

Statement I – Autocatalytic function of DNA can be exemplified by replication of DNA.

Statement II – In eukaryotes, the unwinding of the two strands of DNA is a bidirectional process but the replication of DNA is always unidirectional.

Choose the correct answer:

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

43.

In human beings, during cleavage, the zygote gets completely divided. It is called _____.

- (A) meridional
- (B) holoblastic
- (C) indeterminate
- (D) radial

44.

The appearance of roan coat colour in cattle is an example of _____.

- (A) incomplete dominance
- (B) complete dominance
- (C) co-dominance
- (D) pleiotropy



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45.

A single step large mutation in a population is called _____.

- (A) genetic drift
- (B) speciation
- (C) saltation
- (D) gene flow

46.

Absorption of alcohol takes place in _____.

- (A) small intestine
- (B) large intestine
- (C) stomach
- (D) buccal cavity

47.

How many ATP molecules are consumed during the aerobic oxidation of one glucose molecule?

- (A) 1
- (B) 2
- (C) 3
- (D) 4

48.

Symptoms such as breakdown of alveoli and shortness of breath are observed in _____.

- (A) marasmus
- (B) emphysema
- (C) acute bronchitis
- (D) laryngitis

49.



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Which of the following is smaller RNA with less than a hundred nucleotides?

- (A) tRNA
- (B) mRNA
- (C) rRNA
- (D) dsRNA

50.

Which of the following statements are correct about exponential growth?

- i. Phase of cell enlargement is also exponential phase.
- ii. Cells in this phase are turgid due to absorption of water.
- iii. Cells become vacuolated and osmotically active.
- iv. Growth rate never reaches its maximum.

- (A) i and ii only
- (B) i, ii and iii only
- (C) i, ii, iii and iv
- (D) i, ii and iv only

51.

Identify the recognition sequence of *HindIII* restriction enzyme.

(A)

5' — A G C T — 3'
3' — T C G A — 5'

(B)

5' — G G A T C C — 3'
3' — C C T A G G — 5'

(C)

5' — G T A A T A C — 3'
3' — C A T T A T G — 5'

(D)

5' — G T C G A C — 3'
3' — C A G C T G — 5'



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52.

Given below are two statements:

Statement I – In many cultures in India, stretches of forests were set aside and protected in the name of Almighty, called sacred groves.

Statement II – Sacred groves serve as the only chance of survival for some endangered varieties of plants and animals.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

53.

Which soil-living bacterium forms root nodules in groundnut?

- (A) Nitrosomonas
- (B) Nitrobacter
- (C) Rhizobium
- (D) Nitrosococcus

54.

Test cross is performed by _____.

- (A) back crossing the hybrid with its dominant parent
- (B) back crossing the hybrid with its recessive parent
- (C) crossing any two plants with contrasting traits
- (D) selfing the hybrid

55.

Select the INCORRECT statement with respect to prostate gland in males.

- (A) It is a single gland made up of 20–30 lobes.
- (B) It surrounds the urethra.
- (C) It secretes prostaglandins which stimulate reverse peristalsis in



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vagina.

(D) Prostatic fluid contains acid phosphatase which protects sperms from acidic environment in vagina.

56.

Total number of minor calyces is equal to that of _____.

- (A) column of Bertini
- (B) major calyces
- (C) renal pyramids
- (D) collecting ducts

57.

Which of the following are phagocytic cells?

- (A) Parietal cells
- (B) Peptic cells
- (C) Kupffer cells
- (D) Hepatic cells

58.

Match the simple lipid present in different parts of animal body with their function:

Column I

- i. Deposited in subcutaneous tissue
- ii. Stored in adipocytes
- iii. Around internal organs
- iv. Coating on skin

Column II

- a. Water resistance
- b. Insulator
- c. Reserved food
- d. Shock absorber

- (A) i-b, ii-c, iii-d, iv-a
- (B) i-a, ii-b, iii-d, iv-c



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- (C) i-c, ii-a, iii-b, iv-d
- (D) i-d, ii-c, iii-a, iv-b

59.

Identify the correct order of plants of various seral stages in primary ecological succession of aquatic habitats.

- (A) Hydrilla → Lotus → Pistia → Typha → Cyperus
- (B) Lotus → Hydrilla → Pistia → Cyperus → Typha
- (C) Pistia → Hydrilla → Lotus → Typha → Cyperus
- (D) Hydrilla → Pistia → Typha → Lotus → Cyperus

60.

Which of the following pairs is alleles of Y and R?

- (A) YR
- (B) YY
- (C) RR
- (D) yr

61.

Select the INCORRECT statement with respect to breathing process.

- (A) Thoracic volume increases during inspiration.
- (B) It is a physical process that involves thoracic cage, diaphragm and intercostal muscles.
- (C) During inspiration, there is low pressure inside lungs, hence air from atmosphere rushes into lungs.
- (D) Diaphragm becomes relaxed and dome shaped during inspiration.

62.

The immunity provided by BCG vaccine is _____ immunity.

- (A) natural acquired passive
- (B) artificial acquired passive
- (C) artificial acquired active
- (D) natural acquired active



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63.

Bacillus thuringiensis kills the caterpillars by releasing _____ in their guts.

- (A) gliotoxin
- (B) gliovirin
- (C) cry protein
- (D) viridin

64.

Neurohypophysis of pituitary gland is differentiated into following parts EXCEPT _____.

- (A) Pars nervosa
- (B) Pars distalis
- (C) Infundibulum
- (D) Median eminence

65.

Recalcitrant seeds means the seeds with _____.

- (A) reduced calcium level
- (B) high reserve food
- (C) reduced moisture content below certain level
- (D) high moisture content at certain level

66.

Select the correct sequence of statements regarding conduction of nerve impulse.

- i. Rapid influx of Na^+ inside the axon
- ii. Na^+ gates are closed and K^+ gates open after refractory period
- iii. Intracellular fluid is electronegative and potential difference is -70 mV
- iv. Extracellular fluid becomes electronegative
- v. Disturbance to resting potential

- (A) iii \rightarrow v \rightarrow i \rightarrow iv \rightarrow ii



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(B) v → iii → i → iv → ii

(C) i → iii → v → ii → iv

(D) iv → v → i → iii → ii

67.

The interaction of sea anemone hosting the clown fish is an example of _____.

(A) parasitism

(B) predation

(C) commensalism

(D) competition

68.

Arrange the following animals in decreasing ability to conserve water:

i. Bony fish

ii. Land snail

iii. Shark

(A) i, ii, iii

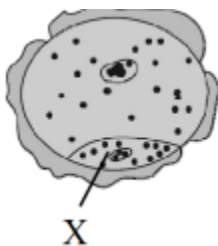
(B) ii, i, iii

(C) iii, ii, i

(D) ii, iii, i

69.

Identify the label 'X' in the given diagram of a mature pollen grain.



(A) Generative cell

(B) Vegetative cell



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- (C) Male gamete
- (D) Germ pore

70.

Select the correct sequence with respect to human embryonic development.

- i. Insemination
- ii. Blastulation
- iii. Fertilization
- iv. Gastrulation
- v. Gestation

- (A) i → iii → iv → ii → v
- (B) i → ii → iii → iv → v
- (C) i → iii → ii → iv → v
- (D) i → iv → iii → ii → v

71.

The proportion of an allele in the gene pool, to the total number of alleles at a given locus, is called _____.

- (A) gene mutation
- (B) gene frequency
- (C) gene flow
- (D) gene drift

72.

Select the disorder which shows symptoms like person feeling thirsty, increase in urine output and no glucose is lost in urine.

- (A) IDDM
- (B) NIDDM
- (C) Diabetes insipidus
- (D) Addison's disease

73.



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Given below are two statements:

Statement I – Diazotrophs are the nitrogen fixing microorganisms, which are exclusively symbiotic.

Statement II – Organic fertilizers include farm yard manure, compost and green manure.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

74.

Given below are two statements regarding circulation of blood in fishes:

Statement I – Heart of fish contains only deoxygenated blood.

Statement II – Fishes show single circulation and blood passes through heart only once during each cycle.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

75.

Xenotransplantation is the transfer of organs from animals to humans.

Which one of the following animals is used currently for this?

- (A) Cattle
- (B) Mice
- (C) Pigs
- (D) Frogs

76.

Introduction of _____ for aquaculture in India has proved harmful to endemic catfish varieties.



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- (A) *Clarias gariepinus*
- (B) *Scoliodon*
- (C) *Betta*
- (D) *Guppy*

77.

Protein Energy Malnutrition (PEM) leads to _____.

- (A) constipation
- (B) marasmus
- (C) jaundice
- (D) vomiting

78.

The length of root hair is _____.

- (A) 1 – 10 mm
- (B) 11 – 20 mm
- (C) 21 – 30 mm
- (D) 31 – 40 mm

79.

Which water is absorbed by roots present in soil?

- (A) Gravitational
- (B) Capillary
- (C) Combined
- (D) Hygroscopic

80.

Cellophane tube used in haemodialysis carrying patient's blood serves the function of _____ ultrafiltration.

- (A) passive selective reabsorption
- (B) tubular secretion
- (C) passive selective ultrafiltration
- (D) active selective reabsorption



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81.

Which two processes occur in connecting link reaction between glycolysis and Krebs cycle?

- (A) Oxidation and carboxylation
- (B) Oxidation and phosphorylation
- (C) Oxidation and decarboxylation
- (D) Oxidation and dephosphorylation

82.

The pollen grains have specific gravity higher than water in _____.

- (A) Lotus
- (B) Water hyacinth
- (C) *Zostera*
- (D) *Vallisneria*

83.

Bolting in plants like beet and cabbage having rosette habits is promoted by _____.

- (A) Gibberellins
- (B) Auxins
- (C) Cytokinins
- (D) ABA

84.

Given below are two statements:

Statement I – Cell wall of root hair is freely permeable.

Statement II – Plasma membrane of root hair (cell) is selectively permeable.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.



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85.

Type of natality used to calculate population size in the form of number of births per 1000 population per year is _____.

- (A) realised natality
- (B) absolute natality
- (C) crude birth rate
- (D) specific birth rate

86.

The type of isolating mechanism when members do not mate with each other due to specific mating behavior is termed as _____ isolation.

- (A) temporal
- (B) ecological
- (C) ethological
- (D) mechanical

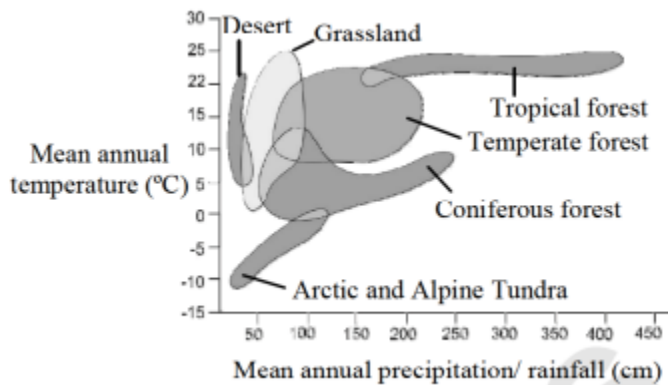
87.

Select INCORRECT statement with reference to adenohipophysis.

- (A) It is vascular part of pituitary gland.
- (B) It contains various types of epitheloid secretory cells.
- (C) It is connected to hypothalamus through hypophyseal portal system.
- (D) It originates as downward extension of hypothalamus.

88.

The mean annual rainfall of tropical forest ranges between _____.



- (A) 150 – 400 cm
- (B) 100 – 200 cm
- (C) 50 – 250 cm
- (D) 50 – 100 cm

89.

CUA CAU CUA code for which of the following amino acid?

- (A) Valine
- (B) Methionine
- (C) Leucine
- (D) Glutamic acid

90.

Select the CORRECT statement with respect to human respiration.

- (A) Carbonic anhydrase enzyme is found in RBCs and absent in blood plasma.
- (B) Carbon-dioxide binds with amino group of haemoglobin to form loosely bound carbaminohaemoglobin.
- (C) Degree of saturation of Hb with O₂ is maximum at 30 mmHg of pO₂.
- (D) In Hamburger's phenomenon, chloride ions diffuse out of RBCs into plasma to maintain ionic balance.

91.

Ploidy level is NOT same in _____.

- (A) perisperm and integument
- (B) integuments and embryo
- (C) nucellus and secondary nucleus
- (D) antipodals and secondary nucleus

92.

Given below are two statements:

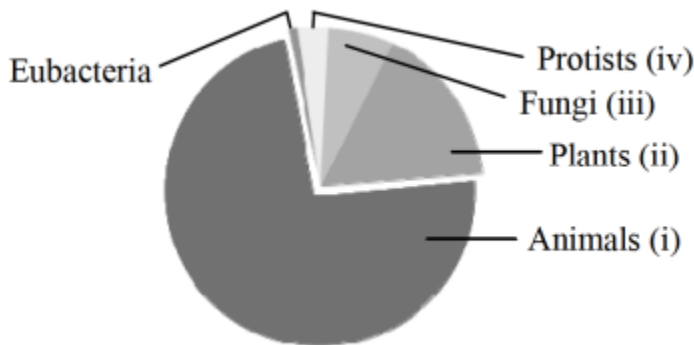
Statement I – At the onset of puberty, the pituitary gland begins secretion of gonadotropin releasing hormone.

Statement II – GnRH initiates the significant increase in the secretion of follicle stimulating hormone (FSH) which induces gametogenesis.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

93.

Based on the given pie diagram, identify the correct expression with relation to the number of various groups of organism.



- (A) $ii + iii + iv = i$
- (B) $i > ii > iii > iv$
- (C) $i = ii + (iii - iv)$
- (D) $iii = iv$ and $i > ii$



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94.

Select the INCORRECT statement.

- (A) Fever stimulates production of antibodies and helps in recovery from viral infections.
- (B) The NK cells (Natural Killer) are important in non-specific defence against viral infections and tumours.
- (C) The zinc present in semen is antibacterial.
- (D) Secretions of lacrymal glands contain an antibacterial substance called lysozyme.

95.

Following are characteristics of genetic recombination, EXCEPT _____.

- (A) occurs in sexually reproducing animals
- (B) exchange of genetic material takes place between sister chromatids
- (C) it occurs due to crossing over
- (D) it leads to variations

96.

Natural plant growth inhibitor is _____.

- (A) Gibberellins
- (B) Auxins
- (C) Ethylene
- (D) ABA

97.

Match the column I with column II and select correct option:



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Column I (Pathogen/Parasite)

- i. *Phytophthora palmivora*
- ii. *Alternaria crassa*
- iii. *Cactoblastis cactorum*
- iv. *Tyrea moth*

Column II (Significance)

- a. Controls weed *Senecio jacobaea*
- b. Controls milk weeds in orchards
- c. Controls water hyacinth
- d. Controls cacti weeds

- (A) i-b, ii-c, iii-d, iv-a
- (B) i-b, ii-c, iii-a, iv-d
- (C) i-c, ii-d, iii-a, iv-b
- (D) i-d, ii-a, iii-c, iv-b

98.

Given below are two statements regarding carbon and phosphorus cycles:

Statement I – Atmospheric inputs of phosphorus through rainfall are huge than carbon inputs.

Statement II – Exchange of phosphorus between organism and environment are negligible as compared to carbon.

- (A) Both statement I and statement II are correct.
- (B) Both statement I and statement II are incorrect.
- (C) Statement I is correct and statement II is incorrect.
- (D) Statement I is incorrect and statement II is correct.

99.

During respiration, substrate level phosphorylation occurs in _____.

- (A) Cytoplasm only
- (B) Mitochondrial matrix only

- (C) Cytoplasm and mitochondrial matrix
- (D) Intermembrane space of mitochondria

100.

Salmonella typhi are _____ bacteria.

- (A) flagellate Gram +ve
- (B) flagellate Gram -ve
- (C) non-flagellate Gram -ve
- (D) non-flagellate Gram +ve