MHT CET 2024 PCB Apr 29 Shift 1

Question Paper

Conducted by the State Common Entrance Test Cell, Maharashtra

Time Allowed: 180 Minutes **PCB Group** **Maximum Marks: 200**

General Instructions

(i) This is a **memory-based version** of the **MHT CET 2024 PCB Apr 29 Shift 1** (PCB group), conducted by the **State Common Entrance Test Cell, Maharashtra**. The questions were recalled by candidates who appeared in the exam.

(ii) This edition includes **97 of 200 questions**: **97 Biology**. Physics and Chemistry questions are unavailable. Original subject question numbers are retained; Biology questions 69, 88, 93 are unavailable.

(iii) The full PCB exam has **200 questions** and **200 marks**: Section 1 - **Physics and Chemistry** (50 questions each, 100 marks), followed by Section 2 - **Biology** (100 questions, 100 marks). Each section lasts **90 minutes**.

(iv) Candidates cannot switch between sections. Section 1 closes automatically after its 90 minutes, and Section 2 follows.

(v) All questions in the exam are compulsory. Each multiple choice question offers **four options**, of which **exactly one is correct**.

(vi) Each correct answer earns **1 mark**. There is **no negative marking**; unanswered questions carry 0 marks.

(vii) Use rough sheets for calculations and rough work. Calculators, log tables and electronic gadgets are not allowed.

Section 2 · Biology · 97 available questions

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

5. 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.
In light of above statements, choose the most appropriate answer from the options given below.

(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

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 and select the correct option.
Column I (Product) | Column II (Use)
i. Citric acid | a. In medicine for solubility of Ca++
ii. Fumaric acid | b. In confectionary
iii. Gluconic acid | 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

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
(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) anaemophily
(D) hydrophily

17. Select the correct path of intra-renal circulation from the following
i. peritubular capillaries
ii. glomerular capillaries
iii. renal veinule
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

18. Given below are two statements regarding oxidation of reduced coenzymes formed during glycolysis, acetylation and TCA cycle:
Statement I - During oxidation of NADH + H+ and FADH2, electrons and protons are released.
Statement II - Electrons are passed through various electron carriers and they finally are transferred to molecular oxygen.
In light of above statements, choose the most appropriate answer from the options given below.

(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 the 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.

20. Given below are two statements
Statement I - Chromosomes are present in eukaryotic nucleus.
Statement II - Chromosomes are visible during cell division.
In light of above statements, select the correct answer from the options given below.

(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 options given below.
Column I (Type of WBC) | Column II (Percentage)
i. Lymphocyte | a. 1% to 3%
ii. Eosinophils | b. About 70%
iii. Basophils | c. 3% to 5%
iv. Neutrophils | d. 25% to 30%
v. Monocytes | e. 0.5% to 1%

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

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

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 O2.

(A) Relationship between HbO2 saturation and O2 tension (ppO2) is called oxygen dissociation curve. (B) 100% saturation of Hb with O2 is rare.
(C) Degree of saturation decreases with increase in partial pressure of O2 (ppO2). (D) Only 50% saturation can be maintained at 30 mmHg of ppO2.

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 hallow needle inserted into the uterus.
Statement II - X-rays imaging is used to determine the position of the foetus in the uterus.
In light of above statements, select the correct answer from the options given below.

(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.

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 → α - Ketoglutarate (B) α - Ketoglutarate → Succinyl CoA
(C) Succinyl CoA → Succinate (D) Fumarate → 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.
In light of above statements, choose the most appropriate answer from the option given below.

(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.

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 below:
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 and select the correct option given below
Column I | Column II
i. Hypertension | a. Inelasticity of arteries due to hardening of their walls.
ii. Angina pectoris | b. Deposition of fats like cholesterol in arteries.
iii. Arteriosclerosis | c. Severe pain and heaviness in chest due to reduction in the blood supply to heart m
iv. Atherosclerosis | 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 its 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

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.
In light of above statements, choose the correct answer from the options given below.

(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

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

(A) tRNA
(B) mRNA
(C) r-RNA
(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.
v. Enlargement of cells occurs lengthwise and breadthwise.

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

51. Identify the recognition sequence of HindII 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 - A - A - T - T - T -- 3'
3' -- C - T - T - A - A - A -- 5'
(D) 5' -- G - T - C - G - A - C -- 3'
3' -- C - A - G - C - T - G -- 5'

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.
In light of above statements, choose the most appropriate answer from the options given below.

(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 large and single gland made up of 20 - 30 lobes.
(B) It surrounds the urethra.
(C) It secretes prostaglandins which stimulate reverse peristalsis in 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 given in column I with their function in column II

Column I | Column II

i. Deposited in subcutaneous tissue | a. Water resistance

ii. Stored in adipocytes | b. insulator

iii. Around internal organs | c. reserved food

iv. Coating on skin | d. Shock absorber

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

(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 one 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

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 and select the correct option given below.

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 → v → i → iv → ii (B) v → ii → i → iii → iv

(C) i → iii → iv → v → ii (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 their decreasing ability to conserve water and select the correct option

i. Bony fish

ii. Land snail

iii. Shark

(A) i, ii, iii (B) ii, i, iii

(C) iii, ii, i (D) ii, iii, i

70. Select the correct sequence with respect to human embryonic development and select the correct option given below
i. Insemination
ii. blastulation
iii. fertilization
iv. gastrulation
v. gestation

(A) i → iii → iv → v → ii
(B) i → iii → ii → iv → v
(C) i → iii → ii → v → iv
(D) i → iv → ii → iii → 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. It is ____ .

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

73. 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.
In light of above statements, choose the most appropriate answer from the option given below.

(A) Both statement I and statement II are correct.
(B) Both statement I and statement II are incorrect.
(C) Statement I is correct but 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.
In light of above statements, choose the correct answer from the options given below.

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

(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 ____ .

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

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.
In light of above statements, choose the most appropriate answer from the options given below.

(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.

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 adenohypophysis.

(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.

89. CUA CUA 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 carboxyhaemoglobin.
(C) Degree of saturation of Hb with O2 is maximum at 30 mmHg of ppO2.
(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.
In light of above statements, choose the correct appropriate answer from the options given below.

(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.

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 tumour.

(C) The zinc present in semen is antibacterial.

(D) Secretions of lachrymal 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 the correct option.
Column I (Pathogen/Parasite) | Column II (Significance)
i. Phytophthora palmivora | a. Controls the weed Senecio jacobeae
ii. Alternaria crassa | b. Controls milk weeds in orchards
iii. Cactoblastis cactorum | c. Controls water hyacinth
iv. Tyrea moth | 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.
In light of above statements, select the correct answer from the options given below.

(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

- End of Question Paper -