PREVIOUS YEAR PAPER

UPPSC LT Grade 2025 Prelims — General Studies and Biology (KEZE-08)

UPPSC LT Grade Teacher

149 of the paper's 150 questions · +2 for a correct answer, −0.67 for a wrong one · 120 minutes

Left out of the original paper: 1 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

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Questions from the Uttar Pradesh Public Service Commission's paper. Each question is followed by its answer, and the answer key is repeated on the last page.

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General Studies

1. Match List I with List II and select the correct answer using the code given below the lists:
List-I (Amendment to the Constitution) - List-II (Topic of Amendment)
A. The Constitution (Sixty-ninth Amendment) Act, 1991 - i. Establishment of State-level Rent Tribunals
B. The Constitution (Seventy-fifth Amendment) Act, 1994 - ii. No Reservations for Scheduled Castes in Panchayats in Arunachal Pradesh
C. The Constitution (Eightieth Amendment) Act, 200(ii. Constitution of Panchayats at village or at another local level
D. The Constitution (Eighty-third Amendment) Act,)0 - iv. Accepting the recommendations of the Tenth Finance Commission
v. Accorded the status of National Capital Territo. .o Delhi

(a) A-i, B-v, C-iii, D-iv

(b) A-v, B-i, C-iv, D-ii

(c) A-i, B-v, C-iv, D-ii

(d) A-v, B-i, C-iii, D-iv

Answer: (b)

2. Given below are two statements, one labelled as Assertion (A) and the other as Reason (R):
Assertion (A): India tested its Integrated Air Defence Weapon System in August 2025.
Reason (R): The test was carried out on the coast of Kerala.
Select the correct answer from the code given below:

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) (A) is true, but (R) is false.

(c) (A) is false, but (R) is true.

(d) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

Answer: (b)

3. Match List I with List II and select the correct answer using the code given below the lists:
List-I (Ruler) - List-II (Custom Name)
A. Bahadur Shah I - i. Rangeela
B. Jahandar Shah - ii. Lustful Fool
C. Farrukhsiyar - iii. Shah-i-Bekhabar
D. Muhammad Shah - iv. Disgusting Coward

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

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

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

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

Answer: (c)

4. According to National Family Health Survey-5, which state has the highest total fertility rate (TFR) among the following states?

(a) Jharkhand

(b) Bihar

(c) Uttar Pradesh

(d) Meghalaya

Answer: (b)

5. Which countries are included in the 'Jakota' Triangle?

(a) Japan, South Korea and Thailand

(b) Japan, North Korea and Hong Kong

(c) Japan, South Korea and Taiwan

(d) Japan, North Korea and Taiwan

Answer: (c)

6. Match List I with List II and select the correct answer using the code given below:
List-I (Book) - List-II (Historian)
A. India Today - i. Sumit Sarkar
B. Modern India - ii. Rajani Palme Dutt
C. Oxford History of India - iii. Percival Spear
D. Social Background of Indian Nationalism - iv. A.R. Desai

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

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

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

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

Answer: (d)

7. Match List I with List II and select the correct answer using the code given below the lists:
List-I (Institution) - List-II (Launch/Inauguration year)
A. The National Mission for Manuscripts (NMM) - i. 1954
B. The National Mission on Monuments and Antiquities (NMMA) - ii. 1985
C. Indira Gandhi National Centre for the Arts (IGNCA) - iii. 2007
D. The National Gallery of Modern Art (NGMA) - iv. 2003

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

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

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

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

Answer: (d)

8. An electric pole, 16 metres high, casts a shadow of 12 metres length. The height of the tree that casts a shadow of 15 metres length under similar conditions, will be:

(a) 20 m

(b) 21 m

(c) 17 m

(d) 15 m

Answer: (a)

9. Which State's Assembly became the first assembly with translator facilities?

(a) Madhya Pradesh

(b) Telangana

(c) Uttar Pradesh

(d) Kerala

Answer: (c)

10. Area of a circle is 314 cm^2. Its perimeter is: (Take $\pi = 3.14$)

(a) 10 cm

(b) 81.9 cm

(c) 61.8 cm

(d) 20 cm

Answer: (c)

11. Match List I with List II and select the correct answer using the code given below the lists:
List-I - List-II
A. Sum of interior angles of a hexagon is - i. Supplementary
B. Diagonals of a rhombus - ii. 20°
C. A cyclic quadrilateral's opposite angles are - iii. 720°
D. Maximum number of diagonals in an octagon is - iv. Bisect each other at 90°

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

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

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

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

Answer: (c)

12. How many people took a holy dip in the Maha Kumbh Mela at Prayagraj in 2025?

(a) About 46 crores

(b) About 56 crores

(c) About 76 crores

(d) About 66 crores

Answer: (d)

13. Which of the following are the limitations on the Sovereignty of the Indian Parliament?
I. Fundamental Rights
II. Judicial Review
III. Federalism
IV. Written Constitution

(a) I, III and IV

(b) I, II, III and IV

(c) I, II and III

(d) I and II

Answer: (b)

14. Consider the following events and arrange these in correct chronological order starting from earliest to the last activity:
I. Minerva Mills vs Union of India Case
II. S.P. Gupta vs Union of India Case
III. Golaknath vs State of Punjab Case
IV. Kesavananda Bharati vs State of Kerala Case
Select the correct answer from the code given belc

(a) III, II, I, IV

(b) IV, I, II, III

(c) IV, I, III, II

(d) III, IV, I, II

Answer: (d)

15. Where is the Central Siberian Plateau located?

(a) Between the Yenisey River and Lena River

(b) Between the Lena River and Verkhoyansk Range

(c) Between the Ural mountains and Cherskogo Range

(d) Between the Verkhoyansk Range and Ural mountains

Answer: (a)

16. In the magnetic meridian of a certain place, the horizonal component of the Earth's magnetic field is 0.26 G and the dip angle is 60°. What is the magnetic field of the Earth at this location?

(a) 0.55 G

(b) 0.54 G

(c) 0.52 G

(d) 0.58 G

Answer: (c)

17. Consider the following statements with reference to Chaudhary Charan Singh National Institute of Agricultural Marketing (CCSNIAM):
I. CCSNIAM is located in Jodhpur (Rajasthan).
II. It is a premier national level institute established in 1988 as an autonomous organisation under the Ministry of Agriculture and Farmers' Welfare, Government of India.
Select the correct answer from the code given below:

(a) Neither I nor II

(b) Both I and II

(c) Only II

(d) Only I

Answer: (c)

18. Given below are two statements, one labelled as Assertion (A) and the other as Reason (R):
Assertion (A): The theme of G20 Summit, 2023 was "Vasudhaiva Kutumbakam", which means "One Earth, One Family, One Future."
Reason (R): It is taken from the ancient Sanskrit text of Maha Upanishad.
Select the correct answer from the code given below:

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) (A) is true, but (R) is false.

(c) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

(d) (A) is false, but (R) is true.

Answer: (c)

19. Consider the following events and arrange these in correct chronological order starting from earliest to the last activitiy:
I. First test-tube baby born
II. First cloned sheep (Dolly)
III. Discovery of Penicillin (Antibiotic)
IV. Discovery of double helix of DNA
Select the correct answer from the code given below:

(a) II, IV, III, I

(b) I, II, III, IV

(c) IV, III, I, II

(d) III, IV, I, II

Answer: (d)

20. Match List I with List II and select the correct answer using the code given below the lists:
List-I (Iron-Ore mines) - List-II (State)
A. Badampahar - i. Karnataka
B. Noamundi - ii. Maharashtra
C. Chandrapur - iii. Jharkhand
D. Tumkuru - iv. Odisha

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

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

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

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

Answer: (b)

21. 'NAKSHA' Programme is implemented under which government initiative?

(a) Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

(b) National Urban Livelihoods Mission

(c) Smart Cities Mission

(d) Digital India Land Records Modernization Programme (DILRMP)

Answer: (d)

22. Given below are two statements, one labelled as Assertion (A) and the other as Reason (R):
Assertion (A): Bioremediation relies on the abilities of micro-organisms to degrade and detoxify organic and inorganic compounds.
Reason (R): Bioremediation can be relatively intrusive to the environment.
Select the correct answer from the code given below:

(a) (A) is false, but (R) is true

(b) (A) is true, but (R) is false.

(c) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(d) Both (A) and (R) are true and (R) is the correct explanation of (A)

Answer: (b)

23. What is the primary objective of Rashtriya Gokul Mission?

(a) To establish large scale dairy farms

(b) To establish veterinary hospitals across rural India

(c) To promote organic farming practices in India

(d) To conserve and develop indigenous breeds of cows and buffaloes

Answer: (d)

24. What was the theme of the Tri-Services tableau showcased during the 76th Republic day Parade in 2025?

(a) India's Defence Heritage

(b) United India Strong India

(c) Sashakt aur Surakshit Bharat

(d) Bharat's Joint Defence Vision

Answer: (c)

25. Given below are two statements, one labelled as Assertion (A) and the other as Reason (R):
Assertion (A): The Upanishads were compiled towards the end of the Vedic period.
Reason (R): The thought of Upanishads is centered around the idea of soul and not sacrifice.
Select the correct answer from the code given below:

(a) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

(b) (A) is true, but (R) is false.

(c) (A) is false, but (R) is true.

(d) Both (A) and (R) are true and (R) is the correct explanation of (A).

Answer: (a)

26. The states of India where cotton textile industry is not established are:
I. Jammu and Kashmir
II. Goa
III. Arunachal Pradesh
IV. Punjab

(a) I and II
(b) I, II and III
(c) III and IV
(d) II and III

Answer: (b)

27. When was the Ain-i-Dahsala Settlement implemented?

(a) 1586 AD
(b) 1576 AD
(c) 1580 AD
(d) 1570 AD

Answer: (c)

28. Consider the following statements with reference to vision for Amrit Kaal:
I. It aims to provide opportunities for citizens with focus on youth.
II. It aims to establish strong and stable macro-economic environment.
Select the correct answer from the code given below:

(a) Both I and II are correct
(b) Only II is correct
(c) Neither I nor II is correct
(d) Only I is correct

Answer: (a)

29. Bee dance pattern which is used for foraging and communication is:

(a) Tail wagging and wing flipping dance
(b) Round and tail wagging dance
(c) Elliptical and spiral dance
(d) Spiral and round dance

Answer: (b)

30. The response of applied nitrogen is rather reduced:

(a) under saline irrigation
(b) in highly alkaline water
(c) in irrigation with water having low SAR
(d) in irrigation with marginally alkaline water

Answer: (a)

Biology

31. Absence of one sex chromosome causes:
    (a) Klinefelter Syndrome
    (b) Down Syndrome
    (c) Turner Syndrome
    (d) Tay-Sachs Syndrome
    Answer: (c)

32. In which mammal are hind limbs absent?
    (a) Platypus
    (b) Sloth
    (c) Aquatic Cetaceans and Sirenians
    (d) Armadillo
    Answer: (c)

33. Bioluminescence is found in:
    (a) Giardia
    (b) Noctiluca
    (c) Trichomonas
    (d) Volvox
    Answer: (b)

34. A baby born with a small tail is a case exhibiting:
    (a) Retrogressive evolution
    (b) Metamorphosis
    (c) Atavism
    (d) Mutation
    Answer: (c)

35. Weberian Ossicles are found in:
    (a) Birds
    (b) Snakes
    (c) Fishes
    (d) Frogs
    Answer: (c)

36. Which of the following is sex-linked?
    (a) Sickle Cell Anaemia
    (b) Albinism
    (c) Phenylketonuria
    (d) Haemophilia
    Answer: (d)

37. The hormone secreted from the kidneys is:
    (a) Secretin
    (b) Erythropoietin
    (c) Testosterone
    (d) Gastrin
    Answer: (b)

38. The principle of naming an organism by two words was first proposed by:
    (a) Carolus Linnaeus
    (b) Julian Huxley
    (c) Charles Darwin
    (d) Ernst Haeckel
    Answer: (a)

39. The cleavage in zygote of Amphioxus is _____.
    (a) Holoblastic
    (b) Meroblastic
    (c) Discoidal
    (d) Superficial
    Answer: (a)

40. Which of the following helps in the defence of Pa[illegible]ecium?
    (a) Trichocyst
    (b) Statocyst
    (c) Oocyst
    (d) Nematocyst
    Answer: (a)

41. Ruminating animals produce which green house gas?
    (a) Methane
    (b) Carbon dioxide
    (c) Nitrous oxide
    (d) Water vapour
    Answer: (a)

42. If thyroid gland is completely removed from a tadpole, it will:
    (a) remain a tadpole indefinitely.
    (b) turn into a giant frog.
    (c) turn into a dwarf frog.
    (d) die immediately.
    Answer: (a)

43. The embryonic respiratory organ in chicks is:
(a) Allantois
(b) Yolk sac
(c) Amnion
(d) Chorion
Answer: (a)

44. Stomochord is present in:
(a) Amphioxus
(b) Balanoglossus
(c) Herdmania
(d) All of the above
Answer: (b)

45. Which of the following pair is not correctly matched?
(a) Polynoe - Scale worm
(b) Eunice viridis - Palolo worm
(c) Aphrodita - Sea mouse
(d) Chaetopterus - Lug worm
Answer: (d)

46. Consider the following statements:
I. ADH is formed primarily in the supraoptic nuclei of hypothalamus.
II. Oxytocin is formed primarily in the paraventricular nuclei.
Select the correct answer from the code given below.
(a) Only II is true
(b) Both I and II are true
(c) Neither I nor II is true
(d) Only I is true
Answer: (b)

47. 'One gene - one enzyme hypothesis' was given by:
(a) Johannsen
(b) Beadle and Tatum
(c) T.H. Morgan
(d) Benzer
Answer: (b)

48. Which zoogeographical region has no representative lungfish?
(a) Ethiopian region
(b) Neotropical region
(c) Australian region
(d) Oriental region
Answer: (d)

49. The type of placenta found in humans is:

(a) Epitheliochorial

(b) Haemoendothelial

(c) Haemochorial

(d) Endotheliochorial

Answer: (c)

50. Match List I with List II and select the correct answer from the code given below the lists:
List-I (Animal) - List-II (Class)
A. Neopilina - i. Gastropoda
B. Chiton - ii. Amphineura
C. Cowries - iii. Monoplacophora
D. Anodonta - iv. Bivalvia

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

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

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

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

Answer: (c)

51. Consider the following statements with reference to linkage:
I. The strength of linkage is determined by the distance between the two genes.
II. The two genes are said to be linked when they fail to show independent assortment.
Select the correct answer from the code given below

(a) Both I and II

(b) Neither I nor II

(c) Only I

(d) Only II

Answer: (a)

52. Which is not a vertebrate character?

(a) Hepatic portal vein

(b) Pharyngeal gill slits

(c) Red coloured plasma

(d) Metamerism

Answer: (c)

53. Which of the following is not present in pancreatic juice?

(a) Amylopsin

(b) Lipase

(c) Trypsin

(d) Rennin

Answer: (d)

54. Insects are physiologically:
    (a) Guanotelic
    (b) Uricotelic
    (c) Ammonotelic
    (d) Ureotelic
    Answer: (b)

55. Chocolate can be bad for health because of high content of:
    (a) Nickel
    (b) Cobalt
    (c) Zinc
    (d) Lead
    Answer: (a)

56. Which of the following is the correct sequence of larval stages in the life cycle of Fasciola?
    (a) Sporocyst, Redia, Miracidium, Cercaria, Metacercaria
    (b) Miracidium, Sporocyst, Redia, Cercaria, Metacercaria
    (c) Cercaria, Metacercaria, Miracidium, Sporocyst, Redia
    (d) Redia, Miracidium, Cercaria, Metacercaria, Sporocyst
    Answer: (b)

57. When is "World Liver Day" celebrated?
    (a) 19th April
    (b) 27th August
    (c) 3rd March
    (d) 16th September
    Answer: (a)

58. Placenta is a connection between the mother and the foetus, which does not exist in:
    (a) Prototheria
    (b) Primates
    (c) Metatheria
    (d) Eutheria
    Answer: (a)

59. Back Cross is:
    (a) F1 × Recessive Parent
    (b) F1 × any parent
    (c) F1 × F1
    (d) F1 × Dominant Parent
    Answer: (b)

60. The famous Kyoto Protocol has been signed to address the problem of:

(a) Eutrophication

(b) Global warming

(c) Acid rain

(d) Ozone depletion

Answer: (b)

61. Consider the following assertions:
I. Claude Bernard gave the concept of constancy of internal environment.
II. Walter B. Cannon, in 1929, used the word Homeostasis for maintenance of a constant internal environment.
Select the correct answer from the code given below:

(a) Only II is true

(b) Only I is true

(c) I and II both are true

(d) Neither I nor II is true

Answer: (c)

62. The transition zone present between two different types of communities is called:

(a) Ecotype

(b) Littoral zone

(c) Ecosphere

(d) Ecotone

Answer: (d)

63. The enzyme present in tears is known as:

(a) Hexokinase

(b) Lipase

(c) Lactate dehydrogenase

(d) Lysozyme

Answer: (d)

64. Which is an enterocoelic animal?

(a) Asterias

(b) Palaemon

(c) Pheretima

(d) Taenia

Answer: (a)

65. Who wrote the book "Systema Naturae"?

(a) Aristotle

(b) Darwin

(c) Linnaeus

(d) Lamarck

Answer: (c)

66. Collar cells are present in the members of which Phylum?
    (a) Coelenterata
    (b) Echinodermata
    (c) Porifera
    (d) Ctenophora
    Answer: (c)

67. On the basis of the amount of yolk, a frog egg is classified as:
    (a) Megalecithal
    (b) Microlecithal
    (c) Telolecithal
    (d) Mesolecithal
    Answer: (c)

68. The function of osphradium in Pila is:
    (a) Excretion
    (b) Olfactory
    (c) Respiration
    (d) Digestion
    Answer: (b)

69. Most CO2 in the blood is carried:
    (a) Bound to plasma proteins
    (b) In plasma as bicarbonate ions
    (c) Dissolved in the plasma
    (d) In RBC's cytoplasm
    Answer: (b)

70. Which enzyme of Krebs cycle is found in inner mitochondrial membrane?
    (a) Succinate dehydrogenase
    (b) Fumarase
    (c) Aconitase
    (d) Thiokinase
    Answer: (a)

71. Regenerative capacity of Hydra was discovered by:
    (a) Trembley
    (b) Aristotle
    (c) Linnaeus
    (d) Leuckart
    Answer: (a)

72. "Organisms have a tendency towards increase in size during their evolution." This rule is known as:

(a) Allen's rule
(b) Hamilton's rule
(c) Bergmann's rule
(d) Cope's rule

Answer: (d)

73. In this fish, the male's belly acts as a brood pouch for incubating the eggs:

(a) Hippocampus
(b) Myxine
(c) Gambusia
(d) Torpedo

Answer: (a)

74. Islets of Langerhans produce:

(a) Hydrochloric acid
(b) Insulin
(c) Ptyalin
(d) Rennin

Answer: (b)

75. Which of the following is not a terminal codon?

(a) AGA
(b) UAA
(c) UAG
(d) UGA

Answer: (a)

76. Match List I with List II and select the correct answer from the code given below the lists:
List-I - List-II
A. Interphase - i. Heterotypic division
B. M-phase - ii. Homotypic division
C. Meiosis II - iii. Division Phase
D. Meiosis I - iv G1, S, G2 Phase

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

Answer: (a)

77. Which bird can also fly backward?
(a) Penguin
(b) Pigeon
(c) Hummingbird
(d) Eagle
Answer: (c)

78. Which one of the following is the connecting link between Annelida and Mollusca?
(a) Nautilus
(b) Chaetoderma
(c) Lymnaea
(d) Neopilina
Answer: (d)

79. In fishes, the neuromast organs are:
(a) Gustoreceptors
(b) Chemoreceptors
(c) Olfactory receptors
(d) Rheoreceptors
Answer: (d)

80. Which of the following is the common ancestor of th apes and humans?
(a) Dryopithecus
(b) Propliopithecus
(c) Aegyptopithecus
(d) Oreopithecus
Answer: (a)

81. Which of the following is a metabolic precursor of most steroid hormones?
(a) Cholesterol
(b) Vitamin D
(c) Glycogen
(d) Starch
Answer: (a)

82. Mitral valve of mammalian heart is also known as:
(a) Tricuspid Valve
(b) Eustachian Valve
(c) Semilunar Valve
(d) Bicuspid Valve
Answer: (d)

83. Solenoglyphous fangs are present in:
(a) Cobra
(b) Krait
(c) Hydrophis
(d) Viper
Answer: (d)

84. In the double helix model of DNA proposed by Watson and Crick, each base pair is how far from the next base pair?
(a) 0.34 nm
(b) 34 nm
(c) 0.034 nm
(d) 3.4 nm
Answer: (a)

85. Crossing over between maternal and paternal chromatids occurs during _____.
(a) Leptotene
(b) Diplotene
(c) Pachytene
(d) Zygotene
Answer: (c)

86. The core of nucleosome is made up of the follow , histones:
(a) H2A, H2B, H3, H4
(b) H1, H2A, H2B, H4
(c) H2, H2A, H2B, H3
(d) H1, H2A, H2B, H3, H4
Answer: (a)

87. Which of the following is the correct taxonomic hierarchy?
(a) Species, Genus, Order, Class, Phylum, Kingdom
(b) Phylum, Class, Genus, Species, Order, Family
(c) Kingdom, Order, Family, Species, Genus, Class
(d) Kingdom, Phylum, Class, Order, Family, Genus, Species
Answer: (d)

88. What are ribozymes?
(a) Ribosomal enzyme
(b) Ribonuclease
(c) RNA molecules working as enzymes
(d) RNA polymerase
Answer: (c)

89. In which of the following does unequal holoblastic cleavage occur?
(a) Bird
(b) Eutherian mammal
(c) Frog
(d) Snake
Answer: (c)

90. In glycolysis, which enzyme helps to convert fructose 1,6-diphosphate to 3-Phosphoglyceraldehyde?
(a) Enolase
(b) Glucokinase
(c) Phosphoglyceromutase
(d) Aldolase
Answer: (d)

91. cDNA is the term given to:
(a) Conservative DNA
(b) Chimeric DNA
(c) Complementary DNA
(d) Circular DNA
Answer: (c)

92. Synthesis of RNA on DNA template is known as:
(a) Translocation
(b) Inversion
(c) Translation
(d) Transcription
Answer: (d)

93. Koch's postulates are to test:
(a) Sterility
(b) Heterothallism
(c) Pathogenicity
(d) Pathogenesis
Answer: (c)

94. Bract scale of Pinus is a part of:
(a) Dwarf shoot
(b) Microsporophyll
(c) Ovule
(d) Megasporophyll
Answer: (d)

95. Which of the following is called 'Walking fern'?
(a) Ophioglossum
(b) Selaginella
(c) Adiantum
(d) Pteris
Answer: (c)

97. All the following are considered as toxic metal pollutants except:
(a) Potassium
(b) Lead
(c) Cadmium
(d) Chromium
Answer: (a)

98. During sexual reproduction in Rhizopus, fusion occurs between two:
(a) Gametangia
(b) Sporangia
(c) Gametes
(d) Hyphae
Answer: (a)

99. Xylem and phloem do not form the conducting str d of:
(a) Cycas
(b) Brassica
(c) Pinus
(d) Funaria
Answer: (d)

100. The famous famine of Ireland in 1845 was due to:
(a) Potato leaf roll
(b) Early blight of potato
(c) Late blight of potato
(d) Ring rot of potato
Answer: (c)

101. Which of the following plants is an illuminating (classic) example of trisomy?
(a) Nicotiana langsdorffii
(b) Datura stramonium
(c) Zea mays
(d) Lycopersicon esculentum
Answer: (b)

102. The cell wall degrading enzyme is:

(a) Pectinase
(b) Cutinase
(c) Phytotoxin
(d) Ligase

Answer: (a)

103. The ovule of Cycas is:

(a) Circinotropous
(b) Anatropous, Unitegmic
(c) Orthotropous, Unitegmic
(d) Orthotropous, Bitegmic

Answer: (c)

104. In bacteria, the condition where a single flagellum is present at one pole is called:

(a) Monotrichous
(b) Peritrichous
(c) Amphitrichous
(d) Lophotrichous

Answer: (a)

105. Which one of the following is not a micronutrient?

(a) Molybdenum
(b) Magnesium
(c) Boron
(d) Zinc

Answer: (b)

106. Molecular scissors used in genetic engineering is:

(a) Helicase
(b) Restriction endonuclease
(c) DNA ligase
(d) DNA polymerase

Answer: (b)

107. Which of the following was described by Kidston and Lang from the Devonian period?

(a) Rhynia
(b) Pogonatum
(c) Lepidocarpon
(d) Lepidodendron

Answer: (a)

108. The outer layer of virus is composed of:

(a) Proteins

(b) Fats

(c) Carbohydrates

(d) Nucleic acid

Answer: (a)

109. Which of the following are the examples of tetrasporic type of embryo sac?
I. Polygonum type
II. Fritillaria type
III. Endymion type
IV. Peperomia type
Select the correct answer from the code given below:

(a) III and IV

(b) I and II

(c) I and III

(d) II and IV

Answer: (d)

110. Cadmium pollution is associated with the disease:

(a) Itai-Itai

(b) Pneumoconiosis

(c) Minamata

(d) Anaemia

Answer: (a)

111. What are Casparian strips made of?

(a) Suberin

(b) Cutin

(c) Wax

(d) Pectin

Answer: (a)

112. The National Park in Uttar Pradesh is:

(a) Panna National Park

(b) Orang National Park

(c) Rajaji National Park

(d) Dudhwa National Park

Answer: (d)

113. Which of the following is an indicator of SO2 pollution?
(a) Lichens
(b) Orchids
(c) Moss
(d) Algae
Answer: (a)

114. F.E. Fritsch is known for his contribution to:
(a) Bacterium
(b) Algae
(c) Viruses
(d) Ecology
Answer: (b)

115. The first published complete gene sequence was of:
(a) M13 phage
(b) φ×174 phage
(c) λ phage
(d) T4 phage
Answer: (b)

116. Which one of the following is essential for photol[illegible] of water?
(a) Boron
(b) Copper
(c) Manganese
(d) Zinc
Answer: (c)

117. Wobble Hypothesis was given by:
(a) Nirenberg
(b) Watson
(c) Crick
(d) Khorana
Answer: (c)

118. The main cause of Eutrophication in a water body is:
(a) Overabundance of nutrients
(b) Fluctuations of temperature
(c) Unusual growth of aquatic vegetation
(d) Abundance of micro-organisms
Answer: (a)

119. Cyanophages was discovered by:

(a) Diener
(b) Sinden
(c) R.N. Singh
(d) Safferman and Morris

Answer: (d)

120. Who discovered Heterothallism?

(a) Mitchell
(b) Alexopoulos
(c) Blakeslee
(d) Smith

Answer: (c)

121. Which one of the following is most prevalent in natural plant population?

(a) Autopolyploids
(b) Allopolyploids
(c) Monoploids
(d) Diploids

Answer: (b)

122. The cambium which produces cork is known as:

(a) Phelloderm
(b) Periderm
(c) Phellogen
(d) Periblem

Answer: (c)

123. Among the following, select the correct answer for the measurement of DBH of a tree:

(a) 1.32 m
(b) 1.35 m
(c) 1.41 m
(d) 1.37 m

Answer: (d)

124. White rust of crucifers is caused by:

(a) Plasmopara viticola
(b) Albugo candida
(c) Protomyces macrosporus
(d) Synchytrium endobioticum

Answer: (b)

125. Name the enzyme present in lysosomes.

(a) Transferases
(b) Lyases
(c) Ligases
(d) Hydrolases

Answer: (d)

126. Tunica-Corpus theory was proposed by:

(a) Nageli
(b) Hofmeister
(c) Hanstein
(d) Schmidt

Answer: (d)

127. Monosomics are:

(a) 2n - 1
(b) 2n + 2
(c) 2n + 1
(d) n

Answer: (a)

128. The term meaning "Bacterium Eater" is:

(a) Coliphage
(b) Bacteriocide
(c) Bacteriophage
(d) Cyanophage

Answer: (c)

129. Heterospory has been found in:

(a) Equisetum
(b) Selaginella
(c) Lycopodium
(d) Ophioglossum

Answer: (b)

130. Golden rice was genetically engineered for the synthesis of:

(a) Vitamin K
(b) Carbohydrates
(c) Beta Carotene
(d) Vitamin C

Answer: (c)

131. Who discovered the PCR technique?

(a) C. Weizmann
(b) Cohen and Boyer
(c) Paul Berg
(d) Kary Mullis

Answer: (d)

132. Pyramid of energy is:

(a) Bent
(b) May be upright or inverted
(c) Inverted
(d) Always upright

Answer: (d)

133. "Turn pipe" or "Lever mechanism" of pollination is found in:

(a) Pisum
(b) Euphorbia
(c) Salvia
(d) Mentha

Answer: (c)

134. Equisetum is commonly called:

(a) Club moss
(b) Stonewort
(c) Horsetail
(d) Oril wort

Answer: (c)

135. In Hatch and Slack pathway, carbon dioxide fixation occurs in the chloroplasts of:

(a) Guard cells
(b) Bundle sheath
(c) Spongy mesophyll
(d) Palisade tissue

Answer: (c)

136. When the stigma matures before the anther it is known as:

(a) Heterostyle
(b) Dicliny
(c) Protogyny
(d) Protandry

Answer: (c)

137. Which of the following pairs (carbohydrates - examples) is not correctly matched?

(a) Oligosaccharides - Raffinose
(b) Polysaccharides - Cellulose
(c) Monosaccharides - Mannose
(d) Oligosaccharides - Glycerides

Answer: (d)

138. Cleistothecium is the fruiting body of:

(a) Albugo
(b) Puccinia
(c) Aspergillus
(d) Agaricus

Answer: (c)

139. Coralloid roots of Cycas contain:

(a) Cyanobacteria
(b) Brown algae
(c) Green algae
(d) Fungi

Answer: (a)

140. The Indian mycologist famous for his work on wh t rust is:

(a) Dr. P. Maheshwari
(b) Dr. D.C. Mehta
(c) Dr. Birbal Sahni
(d) Dr. K.C. Mehta

Answer: (d)

141. Which one of the following plant is a long-day plant?

(a) Beta vulgaris
(b) Cosmos bipinnatus
(c) Glycine max
(d) Nicotiana tabacum

Answer: (a)

142. Phytoalexin was first reported by:

(a) Millardet
(b) Prevost
(c) Muller and Borger
(d) Koch

Answer: (c)

143. Match List I with List II and select the correct answer using the code given below the lists:
List I - List II
A. Amphiphloic siphonostele - i. Lycopodium
B. Dictyostele - ii. Pteridium
C. Plectostele - iii. Marsilea
D. Polycyclic siphonostele - iv. Ophioglossum

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

Answer: (c)

144. Transfusion tissue is found in which of the following?

(a) Leaves of Cycas
(b) Capsule of Funaria
(c) Stem of Selaginella
(d) Roots of monocots

Answer: (a)

145. Persistent and much enlarged calyx in the fruit is found in the family:

(a) Solanaceae
(b) Brassicaceae
(c) Papaveraceae
(d) Liliaceae

Answer: (a)

146. Apomixis in plants means development of a plant:

(a) Without fusion of gametes and meiosis
(b) From fusion of gametes
(c) From root cutting
(d) From stem cutting

Answer: (a)

147. Who crystallised and isolated viruses for the first time?

(a) W.M. Stanley
(b) M.W. Beijerinck
(c) K.M. Smith
(d) D.J. Ivanowsky

Answer: (a)

148. Down Syndrome is caused by:

(a) Non-disjunction of chromosomes

(b) Sex-linked inheritance

(c) Crossing over between genes

(d) Linked genes

Answer: (a)

149. The special feature of pollen grains of Pinus is:

(a) They are yellow and have air bladders.

(b) They are white and have two air bladders.

(c) They are white and are without air bladders.

(d) They are yellow and have two wings.

Answer: (d)

150. The growth hormone which increases the respiration rate and also promotes water absorption is:

(a) Cytokinin

(b) Abscisic acid

(c) Auxin

(d) Gibberellin

Answer: (c)

Answer key

Answer key from the Uttar Pradesh Public Service Commission's official answer key for this sitting. "—" means the key gave none.

General Studies

1	**(b)**	2	**(b)**	3	**(c)**	4	**(b)**	5	**(c)**	6	**(d)**
7	**(d)**	8	**(a)**	9	**(c)**	10	**(c)**	11	**(c)**	12	**(d)**
13	**(b)**	14	**(d)**	15	**(a)**	16	**(c)**	17	**(c)**	18	**(c)**
19	**(d)**	20	**(b)**	21	**(d)**	22	**(b)**	23	**(d)**	24	**(c)**
25	**(a)**	26	**(b)**	27	**(c)**	28	**(a)**	29	**(b)**	30	**(a)**

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31	**(c)**	32	**(c)**	33	**(b)**	34	**(c)**	35	**(c)**	36	**(d)**
37	**(b)**	38	**(a)**	39	**(a)**	40	**(a)**	41	**(a)**	42	**(a)**
43	**(a)**	44	**(b)**	45	**(d)**	46	**(b)**	47	**(b)**	48	**(d)**
49	**(c)**	50	**(c)**	51	**(a)**	52	**(c)**	53	**(d)**	54	**(b)**
55	**(a)**	56	**(b)**	57	**(a)**	58	**(a)**	59	**(b)**	60	**(b)**
61	**(c)**	62	**(d)**	63	**(d)**	64	**(a)**	65	**(c)**	66	**(c)**
67	**(c)**	68	**(b)**	69	**(b)**	70	**(a)**	71	**(a)**	72	**(d)**
73	**(a)**	74	**(b)**	75	**(a)**	76	**(a)**	77	**(c)**	78	**(d)**
79	**(d)**	80	**(a)**	81	**(a)**	82	**(d)**	83	**(d)**	84	**(a)**
85	**(c)**	86	**(a)**	87	**(d)**	88	**(c)**	89	**(c)**	90	**(d)**
91	**(c)**	92	**(d)**	93	**(c)**	94	**(d)**	95	**(c)**	97	**(a)**
98	**(a)**	99	**(d)**	100	**(c)**	101	**(b)**	102	**(a)**	103	**(c)**
104	**(a)**	105	**(b)**	106	**(b)**	107	**(a)**	10	**(a)**	109	**(d)**
110	**(a)**	111	**(a)**	112	**(d)**	113	**(a)**	114	**(b)**	115	**(b)**
1	**(c)**	117	**(c)**	118	**(a)**	119	**(d)**	120	**(c)**	121	**(b)**
122	**(c)**	123	**(d)**		**(b)**	125	**(d)**	126	**(d)**	127	**(a)**
128	**(c)**	129	**(b)**	130	**(c)**	131	32	**(d)**	133	**(c)**	134
(c)	135	**(c)**	136	**(c)**	137	**(d)**	138	**(c)**	139	**(a)**	140
(d)	141	**(a)**	142	**(c)**	143	**(c)**	144	**(a)**	145	**(a)**	146
(a)	147	**(a)**	148	**(a)**	149	**(d)**	150	**(c)**			