PREVIOUS YEAR PAPER

UPPSC GIC Lecturer 2025 Prelims — Biology (TUKU-10)

UPPSC GIC Lecturer

79 of the paper's 120 questions · +2.5 for a correct answer, −0.83 for a wrong one · 120 minutes

Left out of the original paper: 41 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

The official booklet is a scan with no text; ExamBharo typed this paper from it by hand. Report a typing slip through exambharo.com/contact/.

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.

Take it as a timed practice test: exambharo.com/uppsc-gic-lecturer/previous-year-papers/uppsc-gic-lecturer-2025-prelims-biology/

Biology

41. Consider the following types of rust fungi spores and arrange them in chronological order.
I. Teleutospores/Teliospores
II. Basidiospores
III. Uredospores/Urediniospores
IV. Pycnidiospores
Select the correct answer using the code given below:

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

Answer: (b)

42. Dalbergia sisso belongs to family

(a) Fabaceae
(b) Lythraceae
(c) Meliaceae
(d) Dipterocarpaceae

Answer: (a)

43. In which of the following, alimentary canal is complete with a well developed muscular pharynx present?

(a) Roundworm
(b) Nereas
(c) Octopus
(d) Earthworm

Answer: (a)

44. The immediate biochemical outcome of nitrogen fixation makes nitrogen available for
    (a) Conversion into metabollically usable forms
    (b) Transport through xylem
    (c) Storage in vacuoles
    (d) Direct incorporation into proteins

    Answer: (a)

45. In human beings, which of the following hormone is secreted only in male?
    (a) Progesterone
    (b) Adrenalin
    (c) Testosterone
    (d) Insulin

    Answer: (c)

46. Horned Liverwort, is also known as
    (a) Anthoceros
    (b) Riccia
    (c) Pellia
    (d) Marchantia

    Answer: (a)

47. Which of the following is incorrect regarding recombinant DNA technology?
    (a) DNA ligase joins DNA fragments
    (b) PCR can be used to amplify DNA segment in vivo
    (c) Vectors are used to transfer recombinant DNA into host cells
    (d) Restriction enzymes are used to cut DNA at specific sequence

    Answer: (b)

48. The ripe fruits of piper nigrum serve as a source of
    (a) Black pepper
    (b) Red pepper
    (c) Yellow pepper
    (d) White pepper

    Answer: (d)

49. In reference to amphibious life, which of the following pairs is NOT correctly matched?
    (a) Respiration - Lungs
    (b) Muscles - Stronger to lift body
    (c) Sensory system - Addition of inner ear
    (d) Skeleton - Pectoral girdle lost connection with skull

    Answer: (c)

50. What is the function of ligase in DNA replication?

(a) It breakdown the hydrogen bonds in DNA molecules

(b) It catalyzes the joining of two polynucleotide chains

(c) Formation of bonds between nitrogen bases

(d) Breakdown the chain of DNA molecule

Answer: (b)

51. Cyathium is a type of

(a) Fruit

(b) Inflorescence

(c) Phyllotaxy

(d) Flower

Answer: (b)

52. Match List-I with List-II and select the correct answer using the code given below the lists.
List-I (Paired character of pea used by Mendal) - List-II (Location in Chromosome Number)
A. Seed colour yellow vs green - 1. 1
B. Matured seed smooth vs wrinkled - 2. 4
C. Unripe pod green vs yellow - 3. 5
D. Mature pod smooth vs wrinkled - 4. 7

(a) 1 4 3 2

(b) 3 4 2 1

(c) 1 2 4 3

(d) 1 2 3 4

Answer: (a)

53. Which pair is incorrect for plant Mitochondria?

(a) Complex V - ATP synthase

(b) Complex IV - Succinate dehydrogenase

(c) Complex III - Cytochrome complex

(d) Complex I - NADH dehydrogenase

Answer: (b)

54. Which of the following is NOT an excretory organ/cells?

(a) Flame cells

(b) Nephridia

(c) Parietal cells

(d) Solenocytes

Answer: (c)

55. Which one is a living fossil?
(a) Heloderma
(b) Rabbit
(c) Frog
(d) Sphenodon
Answer: (d)

56. Who introduced the term species?
(a) John Ray
(b) Ernst Mayr
(c) Aristotle
(d) Carolus Linnaeus
Answer: (a)

57. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I (Disease) - List-II (Deficiency)
A. Marasmus - 1. Protein deficiency
B. Xerophthalmia - 2. Vitamin A deficiency
C. Osteomalacia - 3. Deficiency of Niacin
D. Pellagra - 4. Deficiency of Vitamin D
(a) 3 4 2 1
(b) 1 2 3 4
(c) 4 3 2 1
(d) 1 2 4 3
Answer: (d)

58. Unquenched chlorophyll can react with molecular oxygen to form
(a) Singlet oxygen
(b) Oxygen molecule
(c) Ozone
(d) Proton
Answer: (a)

59. Which of the following mammal does NOT have a placenta?
(a) Echidnas
(b) Mus musculus
(c) Cynopterus
(d) Oryctolagus
Answer: (a)

60. Which one of the following is wrong for vascular bundle of monocot?

(a) Vascular bundle with no cambium

(b) Open vascular bundle

(c) Endarch vascular bundle

(d) Scattered vascular bundle

Answer: (b)

61. Which one of the following pairs is NOT correctly matched?

(a) Macropus - Marsupialia

(b) Sorex - Pholidota

(c) Halicore - Sirenia

(d) Echidna - Monotremata

Answer: (b)

62. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I (Disease) - List-II (Pathogens)
A. Angular leaf spot of cotton - 1. Coccmyces hiemates
B. Crown gall of sugarbeet - 2. Bacterium cortovorus
C. Soft rot of mango - 3. Agrobacterium tumefaciens
D. Leaf spot of cherry - 4. Xanthomonas malvacearum

(a) 3 4 2 1

(b) 2 3 4 1

(c) 4 3 1 2

(d) 4 3 2 1

Answer: (d)

63. Which of the following hormones is secreted by ovary?

(a) Insulin

(b) Epinephrine

(c) Estrogen

(d) Testosterone

Answer: (c)

64. In which of the following, a meristematic zone found above the foot in mature sporogonium?

(a) Marchantia

(b) Anthoceros

(c) Sphagnum

(d) Riccia

Answer: (b)

65. Match the following type of eggs with examples.
Column-A (Egg Type) - Column-B (Example)
A. Alecithal - 1. Cluck
B. Telolecithal - 2. Monotremes
C. Microlecithal - 3. Coelenterata
D. Megalecithal - 4. Mammal

(a) 4 1 3 2
(b) 2 1 4 3
(c) 3 1 4 2
(d) 1 4 3 2

Answer: (a)

66. Which one of the following is not correct about Haemophilia?

(a) Bleeder's disease
(b) Autosomal linked disease
(c) More common in male than female
(d) Royal disease

Answer: (b)

67. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I - List-II
A. Transfusion tissue - 1. Sphagnum
B. Vallecular canal - 2. Pinus
C. Resin canal - 3. Equisetum
D. Retort cell - 4. Cycas

(a) 4 3 2 1
(b) 4 3 1 2
(c) 2 3 4 1
(d) 1 2 3 4

Answer: (a)

68. Saprophytic fungi, which grows in water upon dead bodies of insect is

(a) Saprolegnia
(b) Arbuscular mycorrhizal fungi
(c) Fusarium
(d) Glomus

Answer: (a)

70. What is correct about Gemma cup of Marchantia?

(a) Sexual reproduction
(b) Vegetative reproduction
(c) Asexual reproduction
(d) None of the above

Answer: (b)

71. Consider the following statements with reference to Hydra.
1. Hydra is diploblastic animal.
2. Nematocysts occur scattered uniformly throughout the epidermis of the body.
Select the correct answer from the code given below:

(a) Both statement 1 and statement 2 are correct

(b) Only statement 2 is correct

(c) Neither statement 1 nor statement 2 is correct

(d) Only statement 1 is correct

Answer: (d)

72. Which observation would most strongly argue against root pressure being the primary mechanism of long distance xylem transport?

(a) Continuous water column in tall trees

(b) Diurnal variation in transpiration

(c) Development of lateral roots

(d) Presence of living xylem parenchyma

Answer: (a)

73. Which one of the following is well known as the father of Indian Palaeobotany?

(a) Prof. S. R. Kashyap

(b) Prof. P. Maheshwari

(c) Prof. Birbal Sahni

(d) Prof. K. C. Mehta

Answer: (c)

74. The theory of spontaneous generation wa[illegible]isapproved by the experiment of

(a) F. Redi

(b) Spallanzani

(c) Van Helmont

(d) Pasteur

Answer: (a)

75. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I (Insect vector) - List-II (Causative organism)
A. Female Anapheles - 1. Trypanosoma brucei
B. Tsetse fly - 2. Pasteurella pestis
C. Sand fly - 3. Plasmodium
D. Flea - 4. Leishmania donovani

(a) 3 2 4 1

(b) 3 4 1 2

(c) 2 1 3 4

(d) 3 1 4 2

Answer: (d)

76. Who introduced the term apomixis?

(a) Winkler

(b) Franklin

(c) Nawaschin

(d) S. C. Maheshwari

Answer: (a)

77. In mammals, carbohydrates are stored as

(a) Glycogen in liver and muscle

(b) Glucose in liver and muscle

(c) Lactic acid in muscle

(d) Glycogen in liver and spleen

Answer: (a)

78. Which of the following statements are correct in reference to flow of energy?
1. Unidirectional
2. Bi-directional
3. Cyclic manner
Select the correct answer using the code given below:

(a) Only statements 1 and 2 are correct

(b) Only statements 2 and 3 are correct

(c) All statements 1, 2 and 3 are correct

(d) Only statement 1 is correct

Answer: (d)

79. Match List-I with List-II and choose the co nswer using the code given below the lists.
List-I (Drug) - List-II (Plant Part)
A. Belladona - 1. Leaves
B. Asafoetida - 2. Roots
C. Nux-Vomika - 3. Seeds
D. Arnica - 4. Dried flowers

(a) 3 4 2 1

(b) 1 2 4 3

(c) 2 1 3 4

(d) 1 2 3 4

Answer: (d)

80. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I (Order) - List-II (Animals)
A. Gymnophiona - 1. Hyla
B. Urodela - 2. Eryops
C. Salientia - 3. Necturus
D. Labyrinthodontia - 4. Ichthyophis

(a) 3 4 1 2
(b) 1 3 4 2
(c) 4 3 1 2
(d) 3 4 2 1

Answer: (c)

81. Which of the following is correct answer about Selaginella?

(a) Horse tail
(b) Resurrection plant
(c) Club mass
(d) None of the above

Answer: (b)

82. Normal fasting level of blood glucose in man is

(a) 80 - 90 mg/100 ml
(b) 120 - 140 mg/100 ml
(c) 40 - 50 mg/100 ml
(d) 50 - 60 mg/100 ml

Answer: (a)

83. Which form of the soil water is easily available to the plants?

(a) Gravitational water
(b) Hygroscopic water
(c) Capillary water
(d) None of these

Answer: (c)

84. Generation of genetically identical whole plant from any cell or explant is called

(a) Somacloning
(b) Hybridization
(c) Somatic hybrids
(d) Biofertilization

Answer: (a)

85. Madreporite and Tiedmann's body is associated with
    (a) Ambulacral system
    (b) Digestive system
    (c) Reproductive system
    (d) Nervous system
    Answer: (a)

86. Presence of transfusion tissues is an important feature of the leaf of
    (a) Angiosperms
    (b) Pteridophytes
    (c) Bryophytes
    (d) Gymnosperms
    Answer: (d)

87. Who discovered somatic hybridization?
    (a) Edward Tatum
    (b) Georges Bassi
    (c) Joshua Lederberg
    (d) Creighton and Mc Clintock
    Answer: (b)

88. Which of the following fish is called 'Eagle ray'?
    (a) Scoliodon
    (b) Torpedo
    (c) Chimaera
    (d) Aetobatus
    Answer: (d)

89. Millets belong to the family
    (a) Malvaceae
    (b) Poaceae
    (c) Apiaceae
    (d) Rosaceae
    Answer: (b)

90. Match List-I with List-II and choose the correct answer using the code given below the lists.
List-I - List-II
A. Relay pump theory - 1. Dixon and Jolly
B. Transpiration-cohesion theory - 2. Munch
C. Mass flow theory - 3. Bose
D. Pulsation theory - 4. Godlewaski

(a) 4 1 2 3
(b) 3 4 2 1
(c) 4 2 1 3
(d) 1 2 3 4

Answer: (a)

91. Large, colourless, empty bulliform cells are characteristics features of leaves in

(a) Grasses
(b) Vegetable plants
(c) Medicinal plants
(d) Leguminous plants

Answer: (a)

92. Mutation arises from insertion or deletion of a pair of nucleotides within the coding region of gene

(a) Silent mutation
(b) Frameshift mutation
(c) Nonsense mutation
(d) Spontaneous mutation

Answer: (b)

93. Name of the fungus famous for ergotine, which is used to check bleeding.

(a) Saccharomyces cervisiae
(b) Rhizopus nigricans
(c) Claviceps purpurea
(d) Penicillium notatum

Answer: (c)

94. In Sycon, the cell which usually form sperm or ovum, are called

(a) Chromocytes
(b) Archaeocytes
(c) Trophocytes
(d) Desmocytes

Answer: (b)

95. Pneumatophores are useful in
(a) Respiration
(b) Guttation
(c) Protein synthesis
(d) Transpiration

Answer: (a)

96. Which of the following pairs is incorrectly matched?
(a) Siphanostele - Marsilea fern
(b) Sago - Cycas revoluta
(c) Peristome - Funaria
(d) Double fertilization - Angiosperm

Answer: (c)

97. Consider the following statements.
1. Escherichia coli is gram-negative bacteria.
2. Pseudomonas aeruginosa is gram-positive bacteria.
Select the correct answer using code:
(a) Both statement 1 and statement 2 are correct
(b) Only statement 2 is correct
(c) Neither statement 1 nor statement 2 is correct
(d) Only statement 1 is correct

Answer: (d)

98. Translocation of organic food through phloem
(a) Circular
(b) Unidirectional
(c) Bidirectional
(d) None of these

Answer: (c)

99. Which of the following statement is incorrect regarding mycoplasma?
(a) Highly pleomorphic
(b) Cell wall made up of chitin
(c) Resistant to antibiotics like Penicillins
(d) Cell delimited by lipoproteinaceous unit membrane

Answer: (b)

100. Which part of the internal ear receives sound waves in human?
(a) Lagena and utriculus
(b) Cochlea
(c) Eustacian tube
(d) Ampulla and utriculus

Answer: (b)

101. Match List-I with List-II and select the correct answer using the code given below the lists.
List-I (Animal) - List-II (Number of Aortic Arches)
A. Reptiles - 1. 3 Pairs
B. Primitive Elasmobranch - 2. 4 Pairs
C. Bony fishes - 3. 5 Pairs
D. In most sharks - 4. 7 Pairs

(a) 3 4 2 1
(b) 1 4 3 2
(c) 1 4 2 3
(d) 1 2 3 4

Answer: (c)

102. Which of the following pairs is NOT correctly matched?

(a) Ruminate endosperm - Betel Nut
(b) Mosaic endosperm - Maize
(c) Xenia - Date palm
(d) Cellular endosperm - Sunflower

Answer: (c)

103. Which one of the following pair is NOT correctly matched?

(a) Pseudocoelomate - Rotifera
(b) Lophophorate coelomate - Bryozoa
(c) Schizocoelous coelomate - Annelida
(d) Acoelomate - Aschelminthes

Answer: (d)

104. Mad cow disease is caused by

(a) Prions
(b) Virusoid
(c) Virus
(d) Viroid

Answer: (a)

105. Match List-I with List-II and select the correct answer using the code given below.
List-I - List-II
A. Cristae - 1. Flat membranous sacs in stroma
B. Cisternae - 2. Infolding in mitochondria
C. Thylakoids - 3. Disc-shaped sacs in golgi-apparatus

(a) 3 2 1
(b) 2 3 1
(c) 1 3 2
(d) 1 2 3

Answer: (b)

106. Match List-I with List-II and select the correct answer using the code given below the lists.
List-I (Pattern of Holoblastic Cleavage) - List-II (Animal Group)
A. Radial - 1. Annelida, Mollusca, Flatworms
B. Spiral - 2. Tunicates
C. Bilateral - 3. Nematodes, mammals
D. Rotational - 4. Echinodermata, Amphioxus

(a) 2 3 4 1
(b) 4 1 2 3
(c) 3 2 1 4
(d) 1 4 3 2

Answer: (b)

107. Match List-I with List-II and select the correct answer using the code given below the lists.
List-I - List-II
A. Parthenocarpy - 1. Development of embryo without gametes
B. Polyembryony - 2. Formation of seedless fruits
C. Apogamy - 3. Development of unfertilised egg
D. Parthenogenesis - 4. Occurrence of more than one embryo within a seed

(a) 2 4 1 3
(b) 2 4 3 1
(c) 4 1 2 3
(d) 1 2 3 4

Answer: (a)

108. Neural system composed of specialised cells called 'Neuron', which has property of

(a) Conductivity and elasticity
(b) Excitability and conductivity
(c) Flexibility and contractibility
(d) Excitability and flexibility

Answer: (b)

109. Which is incorrect about Cannabis sativa?

(a) Marijuana
(b) Charas
(c) Morphine
(d) Hashish

Answer: (c)

110. The example of platyhelminthes is

(a) Dugesia tigrina
(b) Taenia solium
(c) Fasciola hepatica
(d) Ascaris lumbricoides

Answer: (b)

111. Consider the following structures and arrange them into anatomical order from base of the flower to top.
I. Ovary
II. Thalamus
III. Style
IV. Stigma
Select the correct sequence using the code given below:

(a) I, II, III and IV

(b) II, I, III and IV

(c) III, I, IV and II

(d) IV, III, I and II

Answer: (b)

112. Which of the following disorders represents decrease in respiratory surface due to damaged alveolar walls?

(a) Asthma

(b) Emphysema

(c) Hypocapnia

(d) Bronchitis

Answer: (b)

113. Which hormone is generally plant growth inhibitors and an inhibitor of plant metabolism?

(a) Abscisic acid

(b) Auxin

(c) Cytokinin

(d) Ethylene

Answer: (a)

114. Which animal groups or phylum has all its members in the marine environment?

(a) Coelenterata

(b) Echinodermata

(c) Molusca

(d) Porifera

Answer: (b)

115. Heterocysts, the nitrogen fixing structures, are found in which of the following algae?

(a) Spirogyra

(b) Ectocarpus

(c) Nostoc

(d) Ulothrix

Answer: (c)

116. Pons, cerebellum and medulla constitute

(a) Mid brain

(b) Hind brain

(c) Cerebral hemisphere

(d) Fore brain

Answer: (b)

117. Schizogony and schizont stage of plasmodium occur in

(a) Erythrocytes and liver cells of human beings

(b) Stomach of human being

(c) Only liver cells of human beings

(d) Blood of human being

Answer: (a)

118. Disruption of electron flow in photosynthetic ETC would first affect

(a) Proton gradient formation

(b) Sugar export

(c) Enzyme synthesis

(d) Carbon fixation

Answer: (a)

119. Consider the following protein and arrange these series of number of Amino acids from low to high numbers.
I. Globin in haemoglobin
II. Insulin
III. Urease
IV. Trypsin
Select the correct answer from the code given below:

(a) III, II, I, IV

(b) I, II, III, IV

(c) III, I, IV, II

(d) II, IV, I, III

Answer: (d)

120. Blood circulatory system of cockroach is

(a) Double circulation system

(b) Open circulation system

(c) Closed circulation system

(d) None of the above

Answer: (b)

Answer key

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

Biology

41	**(b)**	42	**(a)**	43	**(a)**	44	**(a)**	45	**(c)**	46	**(a)**	47	**(b)**	48	**(d)**
49	**(c)**	50	**(b)**	51	**(b)**	52	**(a)**	53	**(b)**	54	**(c)**	55	**(d)**	56	**(a)**
57	**(d)**	58	**(a)**	59	**(a)**	60	**(b)**	61	**(b)**	62	**(d)**	63	**(c)**	64	**(b)**
65	**(a)**	66	**(b)**	67	**(a)**	68	**(a)**	70	**(b)**	71	**(d)**	72	**(a)**	73	**(c)**
74	**(a)**	75	**(d)**	76	**(a)**	77	**(a)**	78	**(d)**	79	**(d)**	80	**(c)**	81	**(b)**
82	**(a)**	83	**(c)**	84	**(a)**	85	**(a)**	86	**(d)**	87	**(b)**	88	**(d)**	89	**(b)**
90	**(a)**	91	**(a)**	92	**(b)**	93	**(c)**	94	**(b)**	95	**(a)**	96	**(c)**	97	**(d)**
98	**(c)**	99	**(b)**	100	**(b)**	101	**(c)**	102	**(c)**	103	**(d)**	104	**(a)**	105	**(b)**
106	**(b)**	107	**(a)**	108	**(b)**	109	**(c)**	110	**(b)**	111	**(b)**	112	**(b)**	113	**(a)**
114	**(b)**	115	**(c)**	116	**(b)**	117	**(a)**	118	**(a)**	119	**(d)**	120	**(b)**		