General Science Model Test Questions 2 With Answers [Botany - 1]

1. Which one of the following is a green house gas?
   (A) Oxygen       (B) Nitrogen       (C) Carbon dioxide       (D) Ozone

2. The tallest living tree is
   (A) Eucalyptus       (B) Palm tree       (C) Sequoia       (D) Tree fern.

3. Which one of the following plants is biennial?
   (A) Banana       (B) Pineapple       (C) Jack fruit       (D) Carrot

4. Sea weeds are an important source of
   (A) Iron       (B) Chlorine       (C) Bromine       (D) Iodine

5. Polio is caused by
   (A) Bacterium       (B) Fungus       (C) Virus       (D) Insect

6. “Ozone” as such
   (A) Protects the earth from ultraviolet sunrays
   (B) Is catalyst in a number of chemical reactions
   (C) Is utilized in green house farming
   (D) Is a gas which is hazardous when inhaled

7. The climatic changes, soil erosion and decreased rainfall is due to
   (A) Eco system changes
   (B) Deforestation
   (C) Global warming
   (D) Green house effect

8. AGMARK is
   (A) Co – operative society
   (B) Regulated market
   (C) Farmers co-operative
   (D) A quality assurance for agricultural products

9. Refrigeration is a process which
   (A) Kills bacteria
   (B) Slows down the bacterial growth
   (C) Inactivates the bacteria
   (D) Plasmolyses the bacteria

10. The blue – green algae are
(A) Photoheterotrophs    (B) Photoautotrophs
(C) Chemoautotrophs    (D) Chemoheterotrophs

11. Which of the following acts as a coenzyme?
    (A) Zn$^{++}$    (B) Lipase    (C) Pyridoxin    (D) Lysine

12. The phenotypic ratio of monohybris cross is
    (A) 1 : 1 : 1 : 1    (B) 1 : 2 : 1    (C) 3 : 1    (D) 1 : 1

13. Smallest measuring unit in cytology is
    (A) Micron    (B) mm    (C) Angstrom    (D) Rem

14. It is believed that life evolved in its early stage under oxygen–free condition. Which of the following organisms might have been able to survive in that environment?
    (A) Obligate anaerobic bacteria    (B) Obligate halophytes
    (C) Lichens    (D) Thermophilic algae

15. Sexual reproduction is absent in which of the group of fungi mentioned below?
    (A) Deuteromycetes    (B) Basidiomycetes
    (C) Phycomycetes    (D) Ascomycetes

16. One of the characteristics that differentiates prokaryotes from eucaryotes is
    (A) RNA    (B) DNA    (C) Protein    (D) Membrane–bound organelles

17. The most common method of vegetative reproduction in usnea is
    (A) Fragmentation    (B) Soredia    (C) Gemmae    (D) Hormogania

18. Which of the fungi mentioned below is employed as a genetic tool?
    (A) Aspergillus    (B) Neurospora    (C) Gibberella    (D) Pencillium

19. Heterotrichous habit is exhibited by
    (A) Vaucheria    (B) Dictyota    (C) Eutocarpus    (D) Spirogyra

20. Photosynthesis cannot take place in
    (A) Red light    (B) Blue light    (C) Ultraviolet light    (D) Green light

21. Consider the following statements:
I. In pinus only cleavage polyembryony is seen

II. In pinus both simple polyembryony and cleavage polyembryony are present.

III. In pinus polyembryony is not seen

IV. In pinus embryogenesis is not clear.

Of the statements:

(A) IV alone is correct
(B) III alone is correct
(C) I alone is correct
(D) II alone is correct

22. What is the cause for deforestation?

(A) Destruction
(B) Rapid explosion of human and livestock population
(C) Loss of green wealth
(D) none of these

23. How soil get eroded?

(A) By collection of wastes
(B) By disposal of wastes
(C) By floods and rains
(D) By mechanical methods

24. The shape of Human Immuno deficiency Virus (HIV) is

(A) Spherical in shape
(B) Rod like in shape
(C) Spiral like in shape
(D) Comma like in shape

25. Match list-I with list-II correctly and select your answer using the codes given below:

<table>
<thead>
<tr>
<th>List-I</th>
<th>List-II</th>
</tr>
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<tbody>
<tr>
<td>(a) Virus</td>
<td>1. Robert Hooke</td>
</tr>
<tr>
<td>(b) Bacteria</td>
<td>2. Robert Brown</td>
</tr>
<tr>
<td>(c) Nucleus</td>
<td>3. Dimitry Ivanowsky</td>
</tr>
<tr>
<td>(d) Cell</td>
<td>4. Anton Van Leeuwenhoek</td>
</tr>
</tbody>
</table>

Codes:

(a) b c d

(A) 3 4 2 1
(B) 4 2 1 3
(C) 1 2 3 4
(D) 2 3 4 1
26. Polyploidy is most common in
   (A) Animal kingdom  (B) Plant kingdom
   (C) Fungi  (D) Protista

27. In photosynthesis, the light reaction is known as hill reaction and the dark reaction is known as
   (A) Dark reaction  (B) Black reaction
   (C) Blackman reaction  (D) Darkman reaction

28. DNA structure was first described by
   (A) Catcheside  (B) Lederberg  (C) Nirenberg  (D) Watson and Crick

29. What is an example for cymose in florescence?
   (A) Theopesia  (B) Achiranthus  (C) Crotalaria  (D) Caelsalpinia

30. Rice is a staple food of people of India. In the milling process, polishing is the final process and the polished rice is rich in
   (A) Cellulose  (B) Sugar  (C) Starch  (D) Chitin

31. The ratio 9 : 3 : 3 : 1 represents a ratio of
   (A) Monohybrid  (B) Dihybrid  (C) Trihybrid  (D) Back cross

32. Which one of the following is correctly matched?
   (A) Manihot - Grain  (B) Wheat - Cotyledon
   (C) Castor - Endosperm  (D) Saccharum - Stem tuber

33. Gnetum is a
   (A) Herb  (B) Shrub  (C) Climber  (D) Tree

34. Largest living tree on earth is
   (A) Eucalyptus  (B) Giant oak  (C) Sequoia  (D) Juniperus

35. Protonema appears in the life cycle of
   (A) Riccia  (B) Marchantia  (C) Funaria  (D) Anthoceros
36. Sugar is obtained from
   (A) Sugarcane   (B) Beet   (C) Palmyrah   (D) All these

37. When a plant cell is placed in a sugar solution \(\ldots\) takes place.
   (A) Osmosis   (B) Plasmolysis   (C) Diffusion   (D) Imbibition

38. The kinds of ribose nucleic acid present in any plant cell will be
   (A) 2   (B) 3   (C) 4   (D) 5

39. Vernation means the arrangement of leaf
   (A) On the stem   (B) On the root   (C) Inside the bud   (D) Outside the bud

40. In plants, energy is produced during
   (A) Transpiration   (B) Photosynthesis   (C) Respiration   (D) Absorption

41. The yellowing of leaf is caused by the deficiency of
   (A) Iron   (B) Cobalt   (C) Copper   (D) Zinc

42. Identify the correct sequence of evolution in plants:
   (A) Pteridophyte – Gymnosperms – Thallophyte – Bryophyte
   (B) Gymnosperms – Pteridophyte – Bryophyte – Thallophyte
   (C) Bryophyte – Pteridophyte – Gymnosperms – Thallophyte
   (D) Thallophyte – Bryophyte – Pteridophyte – Gymnosperms

43. The vascular bundles arranged in a cycas petiole is
   (A) T-shaped   (B) L-shaped
   (C) C-shaped   (D) Inverted omega (\(\Omega\)) shaped

44. Which one of these is correctly matched?
   (A) Paddy - Blast disease   (B) Sugarcane - Ring disease
   (C) Potato - Leaf spot   (D) Groundnut - Red rot

45. When the soil is rich in organic debris, it is known as
   (A) Humus soil   (B) Clayey soil   (C) Loam soil   (D) Organic soil

46. A plant growing inside another plant of different species symbiotically is called
47. “Survival of the fittest” was proposed in his theory of evolution by
(A) Darwin  (B) Mendel  (C) Lamarck  (D) De Vries

48. In rice polish which is left as a residue
(A) Is of no value  (B) Has the same nutritive value
(C) Twice as nutritive value  (D) None of the above

49. This pteridophyte produces two kinds of spores
(A) Lycopodium  (B) Selaginella  (C) Psilotum  (D) Adiantum

50. Lepidodendron is a fossil which represents
(A) Root  (B) Stem  (C) Fruit  (D) Leaf

51. These cells are loosely arranged in a plant body
(A) Parenchyma  (B) Collenchyma  (C) Sclerenchyma  (D) Acrenchyma

52. Maximum rate of photosynthesis occurs in
(A) White light  (B) Red light  (C) Green light  (D) Red and blue light

53. Resupination is a characteristic feature to the flowers of this family
(A) Oleaceae  (B) Myrtaceae  (C) Orchidaceae  (D) Malvaceae

54. Gemma cup is present in
(A) Riccia  (B) Marchantia  (C) Anthoceros  (D) Funcaria

55. Which one is correctly matched?
(A) Black gram - Tree  (B) Teak wood - Climber
(C) Banana - Herb  (D) Bengal gram - Shrub

56. How many types of cell division are there in plant cells?
(A) 1  (B) 2  (C) 3  (D) 4

57. Flowers emit fragrance to
(A) Purify air  (B) Drive away flies
(C) Attract insects  (D) Perform all these works
58. Recently pattern right was given to which plant in America

   (A) Ginger        (B) Turmeric        (C) Onion        (D) Garlic

59. Reduction in chromosome number occurs after

   (A) Mitosis       (B) Amitosis        (C) Meiosis       (D) Linkage

60. The male cone of cypress consists of

   (A) Microsporophylls    (B) Megasporophylls
   (C) Microsporangia      (D) Megasporangia

61. Botanical name of paddy is

   (A) Triticum vulgare    (B) Solanum nigrum
   (C) Oryza sativa        (D) Eleusine coracana

62. The male filament of oedogonium is known as

   (A) Gynandrium      (B) Nannandrium   (C) Micrandrium   (D) Megandrium

63. Guard cells in the stomata help in

   (A) Transpiration    (B) Respiration    (C) Photosynthesis (D) All of these

64. Syngeneses means union of

   (A) Anthers         (B) Stamens
   (C) Filaments       (D) Androecium and gynoecium

65. Identify the correct sequence of protein synthesis

   (A) Polyribosomes – Aminoacid + tRNA – Polypeptide – Messenger RNA
   (B) Polypeptide – Polyribosome – Messenger – RNA – Aminoacid + tRNA
   (C) Messenger – RNA – Polyribosomes – Aminoacid + tRNA – Polypeptide
   (D) Messenger RNA – Aminoacid + tRNA – Polypeptide – Polyribosomes

66. The study of individual plant throughout their life – history in relation to the environment is called

   (A) Autecology       (B) Synecology     (C) Biology       (D) Life – cycle

67. Which one of the following is correctly matched?

   (A) Papain - Tobacco   (B) Jute - Phloem fibre
68. Fern prothallus is a
   (A) Gametophyte   (B) Sporophyte   (C) Vegetative body   (D) None of these

69. What is the correct sequence of the life – cycle of fern?
   (A) Spore – Sporophyte – Gamete – Gametophyte
   (B) Zygote – Gametophyte – Sporophyte – Spore
   (C) Zygote - Gametophyte – Spore – Sporophyte
   (D) Zygote – Sporophyte – Spore – Gametophyte

70. Consider the following statements:
   Assertion (A): Onion is a monocot plant.
   Reason (R): It has adventitious roots.
   Now select your answer according to the coding scheme given below:
   (A) Both (A) and (R) are true, and (R) is the correct explanation of (A)
   (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
   (C) (A) is true, but (R) is false
   (D) (A) is false, but (R) is true

71. Consider the statements:
   I. Viruses are obligatory endoparasites of living cells
   II. Viruses have genetic material
   III. Viruses can be crystallized
   IV. Viruses do not have mitochondria
   Of the statements:
   (A) I alone is correct    (B) I and II are correct
   (C) I, II and III are correct    (D) All are correct

72. Which of the following lights is necessary for photosynthesis?
   (A) Green   (B) Red   (C) Blue   (D) White

73. The fruit of Tomato belongs to the type?
74. The edible part of Cauliflower is
   
   (A) Inflorescence  (B) Flower  (C) Fruit  (D) Flower bud

75. The genetic material of a cell resides in
   
   (A) Cytoplasm  (B) Protoplasm  (C) Ribosome  (D) DNA

76. An ecosystem has two components, namely
   
   (A) Weeds and trees  (B) Biotic and abiotic  (C) Frogs and men  (D) Plants and animals

77. Development of a sporophyte directly from the sporophytic tissue is called
   
   (A) Double fertilization  (B) Triple fusion  (C) Apospory  (D) Syngamy

78. Root hairs absorbs water from the soil on account of
   
   (A) Plasmolysis  (B) Difference in osmotic concentration  (C) Difference in turgor  (D) Different ions present in the soil water

79. Pollination by birds is known as
   
   (A) Ornithophily  (B) Anemophily  (C) Hydrophily  (D) Entomophily

80. Autotrophs in an ecosystem are called
   
   (A) Producers  (B) Consumers  (C) Decomposeres  (D) Abiotic constituents

81. A dye is prepared from
   
   (A) Sida  (B) Indigofera  (C) Tephrosia  (D) Tridax

82. What is the phenotypic ratio of complementary genes in pea?
   
   (A) 9 : 3 : 3 : 1  (B) 9 : 7  (C) 15 : 1  (D) None of these

83. Thymidine is
   
   (A) A nitrogenous base found in DNA  (B) A nitrogenous base found in RNA  (C) A nucleotide  (D) None of these
84. Match list-I with list-II correctly and select your answer using the codes given below:

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<td>(b) Small pox</td>
<td>2. Bacterium</td>
</tr>
<tr>
<td>(c) Goitre</td>
<td>3. Virus</td>
</tr>
<tr>
<td>(d) Leprosy</td>
<td>4. Iodine deficiency</td>
</tr>
</tbody>
</table>

Codes:

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

85. The first effective vaccine against polio was prepared by

- (A) John H. Gibbon
- (B) Jonas E. Salk
- (C) James Simpson
- (D) Robert Edwards

86. Which among the following is a non-photosynthesis pigment?

- (A) Chlorophyll – a
- (B) Chlorophyll – b
- (C) Anthocyanin
- (D) Phycobilins

87. Unit of classification is

- (A) Family
- (B) Class
- (C) Species
- (D) Phylum

88. Plants that grow in saline water are called

- (A) Halophytes
- (B) Hydrophytes
- (C) Mesophytes
- (D) Thallophytes

89. Diatomaceous earth is a deposit of organisms of

- (A) Xanthophyceae
- (B) Phaeophyceae
- (C) Bacillariophyceae
- (D) Rhodophyceae

NOTE: Chrysophyceae

90. The physiological phenomenon considered as a “necessary evil” in plants is

- (A) Transpiration
- (B) Photosynthesis
- (C) Respiration
- (D) Osmosis
91. The type of phyllotaxy in caltropis is
   (A) Opposite decussate     (B) Alternate
   (C) Superposed             (D) Whorl

92. Frankia produces root nodules in
   (A) Legumes     (B) Rice   (C) Casuarina      (D) Gorsypium

93. Red tides are caused by
   (A) Diatoms     (B) Red dinoflagellates (C) Red algae (D) Brown algae

94. The development of fruit without fertilization is known as
   (A) Apomixis   (B) Apospory   (C) Parthenocarpy (D) Apogamy

95. The agent that carries information from DNA to RNA is
   (A) l – RNA   (B) m – RNA   (C) r – RNA   (D) DNA itself

96. To induce callus which one of the following chemicals is necessary?
   (A) NAA      (B) BAP   (C) 2, 4-D   (D) 2, 4, 5-T

97. Arachis hypogae (groundnut) belongs to the family
   (A) Malvaceae     (B) Euphorbiaceae
   (C) Musaceae     (D) Papilionaceae (Fabaceae)

98. A definite number of cells arranged in a specific manner in an algal colony is known as
   (A) Coenobium   (B) Thallus   (C) Globule   (D) Nucule

99. Which of the groups of plants mentioned below consists of phycobiont and mycobiont living together as an unit?
   (A) Lichens   (B) Mycoplasm   (C) Algae   (D) Bacteriophages

100. Which of the scientists mentioned below for the first time, observed and described bacteria?
     (A) Loeffler   (B) Louis Pasteur
     (C) Koch     (D) Anton Van Leeuwenhoek