General Science Model Test Questions 3 With Answers [Botany - 2]

1. The cambium present within a vascular bundle is known
   (A) Interfascicular cambium    (B) Intrafascicular cambium
   (C) Lateral cambium           (D) Phellogen

2. The outermost layers of rice grain endosperm rich in proteins, vitamins and minerals are known as
   (A) Scutellum             (B) Coleoptile   (C) Coleorrhiza       (D) Aleurone layers

3. Syngenesious anther is an important characteristic feature of
   (A) Asteraceae       (B) Malvaceae   (C) Rutaceae           (D) Poaceae

4. Heterospory leading to the establishment of seed habit is observed in
   (A) Lepidocarpon   (B) Selaginella (C) Isoetes             (D) Marsilea

5. Which of the monocots mentioned below shows anomalous secondary thickening?
   (A) Furcraea       (B) Agave     (C) Asparagus         (D) Dracaena

6. The botanical name for neem is
   (A) Tectona grandis           (B) Dalbergia latifolia
   (C) Pongamia pinnata          (D) Azadirachta indica

7. Meristeles are usually present in
   (A) Ferns                (B) Gymnosperms  (C) Equisetum     (D) Selaginella

8. Winged pollen grains are present in
   (A) Araucaria      (B) Gnetum    (C) Pinus                (D) Selaginella

9. Apogeotropic and coral – like roots are produced in
   (A) Pinus           (B) Cycas    (C) Vanda               (D) Taxus

10. What drug is experimented in the treatment of AIDS?
    (A) TZA          (B) AZT     (C) CAT                      (D) ANC

11. Lysosomes are known as
    (A) Secretory granule   (B) Suicide bags
    (C) Dictyosomes         (D) Ribosomes
12. The algae used by Calvin and his co-workers in elucidating the pathway of carbon in photosynthesis is
   (A) Chlamydomonas    (B) Chlorella
   (C) Chara          (D) Spirogyra

13. Heredity characters are carried to the next generation by
   (A) Plastids        (B) Mitochondria   (C) Chromosome    (D) Ribosome

14. Nobel prize for the study of the structure of DNA was won by
   (A) Darwin and Wallace       (B) Jacob and Monad
   (C) Watson and Crick         (D) Oparin and Haldane

15. Global warming is due to the release of this gas
   (A) Hydrogen       (B) Oxygen       (C) Carbon dioxide    (D) Nitrogen

16. The secret behind Mendel’s success in his experiment lies in this
   (A) Pisum sativum is a self – pollinating plant
   (B) There are 7 pairs of strikingly contrasting characters in the garden pea plant
   (C) The life span of pisum sativum is short
   (D) The 7 characters which he choose for experiment are present independently on different chromosomes

17. This is used as a biofertilizer
   (A) Azolla       (B) Bagasse       (C) Urea           (D) Clostridium

18. 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) Indusium</td>
<td>1. Moss</td>
</tr>
<tr>
<td>(b) Peristome</td>
<td>2. Marchantia</td>
</tr>
<tr>
<td>(c) Rhizoids</td>
<td>3. Cyanophyceae</td>
</tr>
<tr>
<td>(d) Heterocyst</td>
<td>4. Fern</td>
</tr>
</tbody>
</table>

Codes:
   a  b  c  d
   (A) 1  2  3  4  
   (B) 1  2  4  3
19. Choose the appropriate one connected with heterospory
   (A) Lycopodium, equisetum       (B) Selaginella, marsilea
   (C) Isoetes, ophioglossum       (D) Ophioglossum, narsilea

20. Which one of the following is responsible for guttation in Ruhr leaf?
   (A) Root pressure       (B) Transpiration       (C) Photosynthesis       (D) Osmosis

21. The bacterium Escherichia coli is present in the
   (A) Colon of human beings   (B) Soil       (C) Water       (D) Air

22. Turpentine is obtained from
   (A) Pinus       (B) Cedrus       (C) Eucaluptus       (D) Taxus

23. The metal ion involved in stomatal regulation is
   (A) Iron       (B) Magnesium       (C) Zinc       (D) Potassium

24. Which one of the following is concerned with the production of ATP molecules?
   (A) Cristae       (B) Cisternae       (C) Vesicles       (D) Lamellae

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

   List-I                      List-II
   (a) Chlorella 1. Antibiotic
   (b) Yeast 2. Nitrogen fixation
   (c) Pencillium 3. Single cell protein
   (d) Rhizobium 4. Fermentation

   Codes:
   a  b  c  d

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

26. The ratio 3 : 1 is obtained in
(A) Dihybrid cross  (B) Monohybrid cross
(C) Crossing over  (D) Mutation

27. Consider the following statements:
Assertion (A): Rhizopus lives on bread
Reason (R): Because it is a parasite.

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

28. Which of the following is not correctly matched?
(A) Auxin - Cell enlargement  (B) Gibberellin - Amylase synthesis
(C) Cytokinin - Promotes ageing process  (D) Ethylene - Fruit ripening

29. Coralloid roots are found in
(A) Paddy  (B) Gnetum  (C) Araucaria  (D) Cycas

30. Pulses contain large amount of
(A) Fats  (B) Vitamins  (C) Proteins  (D) Minerals

31. Which one is a xerophytes?
(A) Hydrilla  (B) Nelumbium  (C) Nerium  (D) Ceratophyllum

32. Which of the following diseases is not caused by bacteria?
(A) Typhoid  (B) Influenza  (C) Diphtheria  (D) Cholera

33. Which one of the following is correctly matched?
(A) Stanley - Penicillin  (B) Alexander Fleming - AIDS
(C) Robert Gallo - Tobacco mosaic virus  (D) Iwanoski - Discovery of virus

34. Gymnosperms are
(A) Closed seeded plant  (B) Open seeded plant
(C) Seedless plants  (D) Herbaceous plants
35. Reduction division is
   (A) Amitosis   (B) Mitosis   (C) Nuclear division   (D) Meiosis

36. The female sex organ of polytrichum is
   (A) Antheridium   (B) Archegonium   (C) Foot   (D) Protonema

37. DNA model was first proposed by
   (A) Watson and Paul   (B) Watson and Crick
   (C) Robert Hooke   (D) Robert Brown

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

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<tr>
<th>List-I</th>
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<tr>
<td>(a) Chloroplast</td>
<td>1. Cellulose secretion</td>
</tr>
<tr>
<td>(b) Golgi complex</td>
<td>2. Photosynthesis</td>
</tr>
<tr>
<td>(c) Endoplasmic reticulum</td>
<td>3. Metabolic activities</td>
</tr>
<tr>
<td>(d) Protoplasm</td>
<td>4. Protein synthesis</td>
</tr>
</tbody>
</table>

   Codes:
   a   b   c   d
   (A) 3  1  4  2
   (B) 2  3  4  1
   (C) 2  1  4  3
   (D) 4  3  2  1

   NOTE: (a – 2, b -4, c – 3, d – 1)

39. Mendel did his hybridization experiments in this plant
   (A) Sweet pea plant   (B) Pea plant
   (C) Tomato plant   (D) Cotton plant

40. The sun’s energy is fixed in the world by
   (A) Soil   (B) Water   (C) Green plants   (D) Animals

41. Fixation of nitrogen in the soil is done by
   (A) Virus   (B) Fungus   (C) Bacteria   (D) Protozoa

42. Plasmodium belongs to this group
43. Genes are located on  
(A) Chromosomes  (B) Ribosome  (C) Lysosome  (D) Dictyosome

44. Select the correct order in the life – cycle of a bryophyte  
(A) Spores – Sporophyte – Gametophyte – Fertilization  
(B) Gametophyte – Gametes – Fertilization – Sporophyte  
(C) Gametophyte – Spores – Fertilization – Sporophyte  
(D) Sporophyte – Spores – Fertilization – Gametophyte

45. Which one of the following is correctly matched?  
(A) Tuberculosis - Fungus  (B) Cholera - Bacterium  
(C) Mumps - Bacteriophage  (D) Tetanus - Virus

46. The botanical name of Bengal gram is  
(A) Arachis hypogea  (B) Pisum sativum  
(C) Cicer arietnum  (D) Phaseolus mungo

47. Select the correct order of stages in mitosis:  
(A) Metaphase, Prophase, Anaphase, Telophase  
(B) Prophase, Anaphase, Metaphase, Telophase  
(C) Prophase, Metaphase, Anaphase, Telophase  
(D) Prophase, Telophase, Anaphase, Metaphase

48. A pure breeding dwarf pea plant (tt) on hybridization with a pure breeding tall plant (TT) will produce dwarf and tall plants in the ratio (in $F_2$ generation) of  
(A) 1 : 3  (B) 3 : 1  (C) 1 : 2 : 1  (D) 9 : 3 : 3 : 1

49. The male sex organ in chara is called as  
(A) Archegonium  (B) Stamen  (C) Nucule  
(D) Globule

50. Bacteria were first discovered by  
(A) Anton Van Leeuwenhoek  (B) W. M. Stanley
51. Which one of the following is correctly matched?
   (A) Gnetum - Gymnosperm (B) Polytrichum - Algae
   (C) Chara - Pteridophyte (D) Selaginella - Bryophyte

52. Which one of the following tissues conducts food material in plants?
   (A) Xylem (B) Pholem (C) Sclerenchyma (D) Collenchyma

53. Penicillin is a/an
   (A) Alkaloid (B) Resin (C) Antibiotic (D) Fungus

54. Polio is caused by
   (A) Virus (B) Bacterium (C) Whipworm (D) Tapeworm

55. The energy needed by the living organism is ultimately obtained from
   (A) Sun (B) Water (C) Air (D) Petrol

56. In plants, water is conducted by
   (A) Parenchyma (B) Sclerenchyma (C) Pholem (D) Xylem

57. Peristomes are present in
   (A) Chara (B) Polytrichum (C) Adiantum (D) Penicillium

58. The weed which reached India as a contaminant of wheat imported unfrt PL 480 scheme is
   (A) Lantana (B) Eichornia (C) Parthenium (D) Prosopis

59. Polio is caused by a
   (A) Bacterium (B) Fungus (C) Mosquito (D) Virus

60. Tobacco contains a poisonous substance called
   (A) Endotoxin (B) Asprin (C) Nicotine (D) Caffeine

61. Palaeobotany deals with the study of
   (A) Fossil plants (B) Rocks (C) Fossil animals (D) Living plants

62. The work ‘Biosphere’ means
   (A) Total assembly of all living organisms
(B) Only plants of the world
(C) Only animals of the world
(D) Only microorganism of the world

63. Microbial world was discovered in the year
(A) 1763  (B) 1367  (C) 1673  (D) 1667

64. Gametophytes are
(A) Haploid structures  (B) Gamete producers
(C) Prothalli  (D) All these

65. Presence of a cambium indicates
(A) Open vascular bundle  (B) Closed bundle
(C) Incomplete vascular bundle  (D) Broken vascular bundle

66. The phyllotaxy of Gnetum is
(A) Opposite  (B) Ternate  (C) Alternate  (D) Decussate

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

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<tr>
<td>(a) Microsporophyll</td>
<td>1. Ovule</td>
</tr>
<tr>
<td>(b) Megasporophyll</td>
<td>2. Pollen</td>
</tr>
<tr>
<td>(c) Microspore</td>
<td>3. Stamen</td>
</tr>
<tr>
<td>(d) Megaspore</td>
<td>4. Carpel</td>
</tr>
</tbody>
</table>

Codes:

(a) b c d

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

68. The sperm in cycas is
(A) Biciliate and spirally colled  (B) Biciliate and pyriform
(C) Top – shaped and multiciliate  (D) Top – shaped without cilia
69. Circinate vernation of leaves is a typical character of
    (A) Gymnosperms  (B) Ferms
    (C) Pteridohytes in general  (D) Orchids

70. All fungi are always
    (A) Parasites  (B) Autotrophs  (C) Heterotrophs  (D) Saprophytes

71. Why blue green algae are called cyano bacteria?
    (A) Because they are prokaryotic
    (B) Because they live in watery medium
    (C) Because they have blue colour
    (D) Because they are unicellular organisms

72. The gymnosperms resemble angiosperms in having
    (A) Ciliated sperms  (B) Presence of archegonia
    (C) Presence of ovules  (D) Presence of monoxylic wood

73. The disease caused by the fungus colletorichum falcatum is known as
    (A) Downy mildew  (B) Leaf curl
    (C) Red rot  (D) Blight disease

74. Dendrochronology is the study of
    (A) Height of a tree
    (B) Diameter of a tree
    (C) Age of a tree with the help of annual rings
    (D) Counting the number of branches

75. Clove is obtained from which of the plants parts given below?
    (A) Stem  (B) Flower buds  (C) Leaves  (D) Root

76. Match list-I with list-II correctly and select your answer using the codes given below:
    List-I
      (a) Riccia
      (b) Selaginella
    List-II
      1. Monoecious
      2. Homoporous
(c) Nephrolepis  3. Heterosporous
(d) Pinus  4. Homothallic

Codes:

```
A  4  3  2  1
B  3  4  1  2
C  1  3  4  2
D  2  1  3  4
```

77. Which of the algae given below grows in sewage ponds?
   (A) Chlorella  (B) Volvox  (C) Gelidium  (D) Ulva

78. Which of the plant groups mentioned below are popularly known as amphibious of plant kingdom?
   (A) Bacteria  (B) Fungi  (C) Algae  (D) Bryophytes

79. DNA double helical structure was described for the first time by
   (A) Beadle and Tautum  (B) McIntosch
   (C) Hargobind Khorana  (D) Watson and Crick

80. Catalytically active enzyme is called
   (A) Holoenzyme  (B) Coenzyme  (C) Apoenzyme  (D) Ribozyme

81. Water droplets at the tip of the leaf are due to
   (A) Cuticular transpiration  (B) Lenticular transpiration
   (C) Stomatal transpiration  (D) Guttation

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

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<tbody>
<tr>
<td>(Disease)</td>
<td>(Spreading agents)</td>
</tr>
<tr>
<td>(a) Cholera</td>
<td>1. Fungi</td>
</tr>
<tr>
<td>(b) Polio</td>
<td>2. Protozoa</td>
</tr>
<tr>
<td>(c) Malaria</td>
<td>3. Virus</td>
</tr>
<tr>
<td>(d) Dermatitis</td>
<td>4. Bacteria</td>
</tr>
</tbody>
</table>
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Codes:

```
a  b  c  d
```
83. The age of a tree can be determined by
   (A) Measuring the height   (B) Measuring its girth
   (C) Counting the annual growth rings   (D) Measuring its diameter

84. The name “Traveller’s palm” refers to
   (A) Cocos nucifera   (B) Musa sapientum
   (C) Revenala madagas cariensis   (D) Heliconia

85. Phyllode is seen in the plant
   (A) Acacia melanoxylon   (B) Acacia arabica
   (C) Acacia concinna   (D) Acacia sundra

86. Polyploids can be artificially induced by
   (A) Colchicine   (B) Cross – pollination
   (C) Self – pollination   (D) Vegetative propagation

87. Parthenocarpy can be induced by
   (A) ABA   (B) IAA   (C) GA   (D) C₂H₄

88. Raphanobrassica was discovered by
   (A) Karpanchanko   (B) Lysanko   (C) Mendel   (D) Brown

89. When FADH₂ is oxidized, the following number of ATP is produced
   (A) 3   (B) 2   (C) 1   (D) 6

90. Half leaf experiment proves the essentiality of
   (A) O₂   (B) CO₂   (C) H₂O   (D) HCO₂

91. The universal CO₂ acceptor molecule is called
   (A) RuBP   (B) PEP   (C) OAA   (D) Acetyl CoA
92. In anoxic photosynthesis, which of the following takes part as electron donors?
   (A) \( H_2O \)  (B) \( CO_2 \)  (C) \( H_2O \)  (D) \( H_2S \)

93. Velamen root is found in
   (A) Spathoglottis  (B) Vanda  (C) Cuscuta  (D) Pothos

94. Rosewood is obtained from
   (A) Dalbergia latifolia  (B) Thespesia populnea
   (C) Mangifera indica  (D) Delonix regia

95. Penicillin was invented by
   (A) J. Stalk  (B) Hooke  (C) A. Fleming  (D) S. Jenner

96. Spirulina which is a source of SCP is a
   (A) Blue green algae  (B) Red algae
   (C) Fungus  (D) Bacterium

97. Chlorophyll is formed in the presence of
   (A) Copper  (B) Zinc  (C) Aluminium  (D) Magnesium

98. Hormone involved in phototropism is
   (A) Auxin  (B) Gibberellin  (C) Kinetic  (D) Vitamin

99. Father of genetics is
   (A) Gregor Mendel  (B) Hugo de vries
   (C) Robert Hooke  (D) Linnaeus

100. The main function of RNA is
    (A) Carbohydrate synthesis  (B) Lipid synthesis
    (C) Protein synthesis  (D) No specific function