Reproduction in Plants

1. This is immortal

   *1) Bacterium 2) Sequoia 3) Banyan 4)Mangifera

2. Reproduction in an organism is influenced by

   1) Habitat 2) Internal Phsiology 3) Genes *4) All

3. In asexual reproduction,there is no involvement of

   1) Vegetative cells 2) Gametes 3) Spores *4)Gametic union

4. Cell division itself is a mode of reproduction in

   1) Plantae 2)Animalia *3)Monera 4) All fungi

5. Binary fission is not shown by

   1) Euglena 2) Amoeba 3) Bacterium *4)Volvox

6. Budding is a method of asexual reproduction, carried out by

   *1) Yeast 2) Bacteria 3) Plantae 4)Dinoflagellates

7. Chlamydomonas reproduces by

   1) Binary fission 2) Budding *3) Zoospore formation 4)Akinetes

8. Match the following

List – I	List – II
A) Offset	I) *Bryophyllum*
B) Runner	II) *Pistia*
C) Sucker	III) Strawberry
D) Reproductive leaves	IV) *Musa*
	V) *Zinziber*

	A	B	C	D
1)	II	III	IV	V
2)	III	I	IV	II
*3)	II	III	IV	I
4)	I	II	IV	III

9. [A]: Spores are produced by mitosis
   [R]: Microspores are formed by equational division
   1) Both A and R are true and R is the correct explanation of A
   2) Both A and R are true but R is not the correct explanation of A
   *3) A is true but R is false 4) A is false but R is true

10. Penicillium asexually reproduces by

    1) Ascospores *2) Conidia 3) Zoospores 4)Aplanospores

11. Bread mold produces

    1) Zoospores 2) Buds *3) Non-motile spores 4) Conidia

12. These spores are formed exogenously

    1) Buds 2) Zoospores 3)Aplanospores *4) Conidia

13. Gemmae are vegetatively reproducing structures of

1) Algae 2) Fungi 3)Pteridophytes *4) Bryophytes

14. [A]: Fragmentation is not shown by Monerans
[R]: Monerans are unicellular Eukaryotes
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
*3) A is true but R is false 4) A is false but R is true

15. Offspring obtained by asexual or vegetative reproduction is called

1) Germ plasm *2) Clone 3)Pureline 4)Inbredline

16. New plants are developed from the nodes of the following plants when they come in contact with the soil and moisture.

I. Sugarcane II. Potato III.Dahlia IV. Banana

1)only I and II 2) II, III only 3) I, II, IV only *4) All

17. Adventitious buds are involved in asexual reproduction in

1) Sugarcane 2) Dahlia 3) Musa *4)Bryophyllum

18. Match the following

Plant	Vegetatively reproducing sructure
A) *Bryophyllum*	I) Bulb
B) *Marchantia*	II) Bulbil
C) *Agave*	III) Gemmae
D) Onion	IV) Leaf
	V) Root

	A	B	C	D
*1)	IV	III	II	I
2)	V	III	II	I
3)	IV	V	II	I
4)	IV	III	I	II

19. [A]: Aquatic plants organisms carry out sexual reproduction in favorable conditions.
[R]: Water hyacinth reproduces both vegetatively and sexually
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
3) A is true but R is false *4) A is false but R is true

20. Growth of water hyacinth in the water body leads to the death of fishes because it

1) drains CO_2 during photosynthesis *2) drains O_2 during its respiration

3) promotes the growth of other plants 4) depletes the mineral nutrients in the water

21. Eichhornia was introduced into india because of its

I. Flowers II. Roots III.Stems IV. Leaves

1) I, II 2) II, III 3) III, IV *4) I, IV

22. Choose the correct statement

1) Offspring formed during sexual reproduction resemble each other

2) Individuals formed as a result of sexual reproduction resemble the parents in all aspects.

*3) All the individuals formed as a result of asexual reproduction resemble each other.

4) Genetic recombination occurs during asexual reproduction.

23. Choose the dioecious organisms from the following

I. Date palm II. Coconut III.Chara IV. Marchantia

1) I, II *2) I and IV 3) III, IV 4) II, IV

24. Choose the monoecious plant from the following.

*1) *Chara* 2)*Marchantia* 3) Date palm 4) Papaya

25. One of the following plants lives relatively for longer durations.

1) Carrot 2) Paddy 3)Wofia *4) Rose

26. Juvenile phase of a flowering plant is

1) Zygotic stage 2) Stage of embryogenesis

*3) Embryonal stage to vegetative maturity stage 4) Flowering stage

27. Match the following

Plant	Propagule
A) Mentha	I) Leaf buds
B) Chara	II) Eyes
C) Potato	III) Fragmentation
D) Bryophyllum	IV) Sucker
	V) Offsets

	A	B	C	D
*1)	IV	III	II	I
2)	V	II	I	IV
3)	IV	II	III	I
4)	IV	III	II	V

28. [A]: All sexually reproducing organisms show similar pattern of sexual process
[R]: All sexually reproducing organisms form embryo in their life cycle
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
*3) A is true but R is false 4) A is false but R is true

29. The period between two successive flowerings in perennials is called as

1) Reproductive phase *2) Vegetative phase

3) Maturity phase 4) Senescence phase

30. Vegetative, Reproductive and Senescent phases are clearly noticed in the life cycle of the following flowering plants

I. Annuals II. Biennials III. Perennials

*1) I and II 2) II and III 3) III and I 4) I, II, III

31. It is perennial plant

1) Rice *2) Bamboo 3) Carrot 4) Maize

32. Perennial plant that shows flowering only once in its life time is

I. Agave II. Bamboo III.Mangifera

1) Only I 2) Only II 3) I and III *4) I, II

33. The minimum time for vegetative growth in Agave is

1) 5 years 2) 1 year *3) 10 years 4) 40 years

34. Choose the incorrect statement

1) Agave can show 25 years of vegetative growth

*2) The flowering period of Bamboo is longer than its vegetative period

3) Annuals have distinct vegetative and reproductive phases.

4) Biennials have distinct vegetative and reproductive periods.

35. Strobilanthuskinthiana (Neelakurangi) flowers once in every

1) 12 months 2) 12 days *3) 12 years 4) 2 years

36. Match the following

List – I	List – II
A) Homogametes	I) *Chara*
B) Heterogametes	II) *Marchantia*
C) Antheridiophore	III) *Cladophora*
D) Oogonium	IV) *Pteris*
	V) *Chlorella*

	A	B	C	D
1)	II	IV	I	III
*2)	III	IV	II	I
3)	III	IV	II	V
4)	IV	III	II	I

37. Minimum period of vegetative growth in Bamboo is

1) 100 years 2) 10 years *3) 50 years *4) 5 years

38. In plants sexual reproduction is mainly influenced by

1) Light 2) temperature 3) Water *4) Hormones

39. Choose the correct statements

I. Isogametes are seen in algae II. Heterogametes are seen in algae

III. Isogamgetes are seen in Bryophytes IV. Heterogametes are seen in Pteridophytes

1) I, II, III 2) II, III, IV *3) I, II, IV 4) All

40. Choose the wrong pair

1) Papaya - dioecious *2) Hibiscus - Monoecious

3) Date palm - dioecious 4) Coconut - Monoecious

41. Maize is

1) Heterothallic 2)Dioecious *3)Monoecious 4) Polygamous

42. Male gametes of the following plant are not called as antherozoids

*1) *Cladophora* 2) *Marchantia* 3) *Pteris* 4)*Cycas*

43. Cucurbits are

*1) Monoecious 2) Dioecious 3) Polygamous 4)Synoecious

44. Match the following

Plant	Main plant body
A) Bryophytes	I) Diploid
B) Pteridophytes	II) Haploid
C) Gymnosperms	III) Haploid
D) Algae	IV) Diploid
	V) Haploid

	A	B	C	D
*1)	III	IV	I	II
2)	III	V	I	II
3)	II	I	V	III
4)	II	IV	III	I

45. [A]: Regular sequence is not followed in sexual reproduction.
[R]: Sexual reproduction is a complex process
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
3) A is true but R is false *4) A is false but R is true

46. Male gametes are always flagellated in

I. Bryophytes II. Gymnosperms III.Pteridophytes IV. Algae

1) I, II 2) III,IV 3) II, III *4) I, III

47. Pollen grains are carriers of male gametes in

1) pteridophytes 2) only Angiosperms 3) Only Gymnosperms *4) Spermatophytes

48. Male gametes and female gametes are produced almost in equal numbers in

1) Marchantia 2)Cucurbita 3) Date palm *4)Cladophora

49. Motile male and female gametes are seen in

1) Algae 2) Fungi 3) Bryophytes *4) 1 and 2

50. Plants with bisexual flowers show

I. Self pollination II. Cross pollination

III. only cross pollination IV. Do not show pollination

*1) I, II 2) III 3) I 4) IV

51. The meiocytes in Embryophtes are

1) Zygotes 2) Gamete mother cells *3) Spore mother cells 4)Meristematic cells

52. In plants with diplontic life cycle the meiocyte is

*1) Gamete mother cells 2) Zygote

3) Spore mother cells 4) None

53. Match the following

List – I	List – II
A) Parthenogenesis	I) External fertilization
B) Syngamy	II) Internal fertilization
C) Parthenocarpy	III) Fetilisation
D) Synchrony between sexes	IV) Fruit formation without fertilisation
	V) Embryo formation from egg cell

	A	B	C	D
*1)	V	III	IV	I
2)	V	III	IV	II
3)	IV	II	I	V
4)	II	III	IV	I

54. [A]: Bryophytes show external fertilisation
[R]: Amphibians of the plant kingdom have flagellated male gametes.
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
3) A is true but R is false
*4) A is false but R is true

55. Non-motile male gametes are carried to egg through water in

1) Dictos 2) Monocots 3) Gymnosperms *4) Red algae

56. Zygotic meiosis is not shown by

I. Algae II. Fungi III.Bryophytes IV.Pteridophytes

*1) III,IV 2) II,III,IV 3) I,III, IV 4) III,II

57. In the following plants sepals remain attached to fruit even after fertilization.

I. Brinjal II. Tomato III. Mango

1) I, III 2) II, III *3) I, II 4) I,II, III

58. Vivipary is shown by

*1) Mangroves 2) All spermatophytes 3) All pteridophytes 4) Gymnosperms

59. Smallest flowering plant is

1) Lemna *2)Wolfia 3)Cuscuta 4) Croton

60. [A]: Double fertilization is seen in Angiosperms
[R]: Fruits are produced in angiosperms
1) Both A and R are true and R is the correct explanation of A
*2) Both A and R are true but R is not the correct explanation of A
3) A is true but R is false
4) A is false but R is true

61. Life cycle in angiosperms is

1) Haplontic *2)Diplohaplontic 3)Haplodiplontic 4)Diplontic

62. The structures of angiosperms in which meiosis is observed are

I. Microsporangium II. Ovules III.Thalamus IV. Styles

*1) I,II 2) III, IV 3) II, III 4) I, IV

63. Tallest tree is a

*1) Dicot 2) Monocot 3) Gymnosperm 4) Cryptogam

64. Triploid structure in an angiosperm is

*1) PEN 2) Embryo 3) Fruit 4) Flower

65. Gametophytes are parasitic on sporophyte in

I. Gymnosperms II. Angiosperms III.Pteridophytes IV. Bryophytes

1) I, III 2) II, IV 3) III, IV *4) I, IV

66. Maheswari, the father of Indian Embryology was inspired by

1) Iyengar 2) BirbalSahni *3) W. Dudgeon 4) Fritsch

67. Artificial culture of immature embryos was initiated by

1) Shimakura 2)Nitsch *3)Maheswari 4) Dudgeon

68. This contribution of Maheswari won worldwide acclaim.

I. Anther culture II. Test tube fertilization

III. Intraovarian pollination IV. Ovule culture

1) I and III *2) II and III 3) II, III, IV 4) All

69. Reproduction enables

1) continuity of cell division 2) vegetative growth of plant

*3) continuity of species 4) change in metabolic activity of species

70. During reproduction, complete union of gametes is not seen in

*1) Bacteria 2) Algae 3) Fungi 4) Bryophytes

71. Asexual reproduction due to unequal division is seen in

1) Bacteria *2) yeasts 3) *Chlamydomonas* 4) Bread mold

72. Spores help in

I. reproduction of an organism II. Spread of the species into new areas

III. survival of the species in unfavourable conditions.

IV. formation of embryo upon their germination.

1) I, IV 2) II,III, IV *3) I, II, III 4) only II, III

73. Match the following

Plant	Life span
A) Banyan tree	I) 400 years
B) *Woffia*	II) 6 years
C) Carrot	III) 1 year
D) Rose plant	IV) 15 days
	V) 50 years

	A	B	C	D
1)	III	II	V	I
*2)	I	IV	III	II
3)	II	IV	III	I
4)	I	V	III	II

74. [A]: Prof. Maheswari popularized the embryological characters in Taxonomy.
[R]: He established department of Botany in University of Delhi as an important center for Taxonomy.
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
*3) A is true but R is false
4) A is false but R is true

75. Among the following choose the haploid structures

I. Male gamete II. Pollen III.Ovary IV. Egg

1) I, II, III 2) II, III, IV *3) I, II, IV 4) only II, III

76. The diploid structures of a flowering plant

1) Megaspores 2)Synergids *3)Nucellus 4) Polar nucleus

77. The life span of Pinus is

1) Less than 300 years 2) Less than 100 years
3) more than 200 years *4) 600 years

78. The following method of asexual reproduction replaces sexual reproduction

1) Zoospore formation *2)Apomixis
3)Parthenocarpy 4) Conidia formation.

79. These are produced only due to mitosis but not by meiosis

1) Zoospores 2)Aplanospores *3)Conidiospores 4) Microspores

80. This is mechanical method

*1) Fragmentation 2) Conidiospore formation
3) Budding 4) zoospore formation

81. The asexual reproductive structures that can be formed in cup like structures are

1) Zoospores *2)Gemmae 3)Aplanospores 4) Buds

82.

83. Match the following

List – I	List – II
A) Zygote	I) Male gametophyte
B) PEN	II) Female gametophyte
C) Embryosac	III) Product of Syngamy
D) Pollen tube	IV) Product of male gamete and secondary nucleus fusion
	V) Product of asexual reproduction

	A	B	C	D
*1)	III	IV	II	I
2)	V	IV	I	II
3)	IV	V	II	I
4)	II	IV	II	I

84. [A]: Chara is a dioecious
[R]: It has both oogonium and antheridium on the same plant
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
3) A is true but R is false
*4) A is false but R is true

85. Swarm spores are formed in

I. Algae II. Fungi III.Bacteria IV. Bryophytes

1) I, II, IV 2) II, III, IV *3) I, II, III 4) I, II, III, IV

86. The ratio between synergids, egg cell and antipodals in an embryosac is

1) 3 : 1 : 3 *2) 2 : 1 : 3 3) 2 : 1 : 2 4) 3 : 2 : 3

87. Meiosis takes place only during spore formation in

I. Algae II. Fungi III.Angiosperms IV. Gymnosperms

1) I and II *2) III, IV 3) II, III, IV 4) I, II, III

88. Life cycle in Angiosperms is

1) Haplontic 2)Diplontic 3)Haplodiplointic *4)Diplohaplontic

89. Ratio between the number of cells in male gametophyte and female gametophyte of angiosperms is

1) 3 : 8 2) 1 : 2 *3) 3 : 7 4) 4 : 7

90. Sepals remain attached to the fruit even after fertilization in

1) China-rose 2) Rose *3)Brinjal 4) All

91. Embryogenesis is not shown by

I. all sexually reproducing organisms II. All bacteria

III. All algae IV. All fungi

1) I, II 2) I, III, IV *3) II, III, IV 4) I, II, III, IV

92. Match the following

List – I	List – II
A) Dimorphic spores	I) Chlamydomonas
B) Spores formed exogenously	II) Pteridophytes
C) Swarm male gametes	III) Penicillium
D) Swarm asexual spores	IV) Gymnosperms
	V) Rhizopus

	A	B	C	D
*1)	IV	III	II	I
2)	V	III	II	I
3)	III	II	I	IV
4)	IV	II	III	I

93. [A]: Pollination is not seen in Pteridophytes
[R]: Microspores are not produced in vascular cryptogams
1) Both A and R are true and R is the correct explanation of A
2) Both A and R are true but R is not the correct explanation of A
*3) A is true but R is false 4) A is false but R is true

94. Archegoniophore is seen in

1) *Riccia* *2)*Marchantia* 3)*Chara* 4) All

95. Stem is the vegetatively propagating structure in

1) Sugarcane 2) Banana 3) Ginger *4) all

96. Clone is

I. Offspring formed due to vegetative reproduction

II. Offspring formed due to asexual reproduction

III. Offspring formed due to sexual reproduction

1) I, II, III 2) only I 3) only II and III *4) I and II

97. Axillary buds are not the vegetatively propagating structures in

*1) *Bryophyllum* 2) Potato 3) Onion 4)*Pistia*

98. These are specialized structures detached from the parental plant by fragmentation.

1) Eyes 2) Bulbs *3)Gemmae 4) Buds

99. The next flowering in Strobilanthuskunthiana can be expected in the year

1) 2019 2) 2020 *3) 2018 4) 2016

100. Minimum period of vegetative growth for Agave is

*1) 10 years 2) 30 years 3) 50 years 4) 100 years

101. Match the following

List – I	List – II
A) Sub-aerial stem involved in vegetative propagation	I) *Bryophyllum*
B) Aerial stem involved in vegetative propagation	II) Terror of Bengal
C) Underground stem involved in vegetative propagation	III) *Agave Americana*
D) Stem not involved in vegetative propagation	IV) *Solanumtuberosum*
	V) Grapes

	A	B	C	D
1)	I	III	V	II
*2)	II	III	IV	I
3)	III	II	IV	V
4)	II	III	I	IV