RICCIA

1. **Riccia** is a liverwort due to its
(1) Use in liver disease
(2) Liver like colour
(3) Shape
(4) Cause of liver disease

2. How does the dehiscnece of sporogonium and dipersal of sporesoccur in **Riccia**
(1) By internal pressure of elaters
(2) By death and decay of thallus and sporogonium and external pressure on calyptra
(3) By peristome teeth and seta
(4) By strinking of annulus and dehiscence of capsule

3. Scales on margins of **Riccia** are arranged in
(1) Basiptal order (2) Acropetal order
(3) Scattered (4) Noned of the above

4. Which of the following type of scales are found in **Riccia -**
(1) Multicelled and linulate/ligulate
(2) Multicelled and appendiculate
(3) Unicelled and appendicualte
(4) Unicelled and ligulate

5. In which of the following, sporogonium is having nurse cell
(1) **Porella** (2) **Anthoceros**
(3) **Riccia** (4) **Marchanita**

6. Rhizoids of **Riccia** are
(1) One type of acattered
(2) One type and arranged in rows
(3) Two type and scattered
(4) Two type and arranged in rows

7. Vegetative propagatio is mot common in
(1) Fern sporophyte
(2) Fern gametophyte
(3) **Riccia** gametophyte
(4) **Riccia** sporophyte

8. Where do air chambers occur in **Riccia -**
(1) Storage region
(2) Assimiltory zone
(3) Both 1 & 2
(4) Below the lower epidermis

9. Resette habit of **Riccia** is due to
(1) Dichotomous branching
(2) Sympodial branching
(3) Monopodial branching
(4) Asymmetrical branching

EXERCISE

10. How many antherozoids are produced from as Androgonial cell in **Riccia**
(1) One (2) Two
(3) Three (4) Four

11. What type of sexual reproduction occurs in **Riccia**
(1) Isogamous (2) Anisogamous
(3) Oogamous (4) Conjugation

12. The gametephytic phase of **Riccia** ends with
(1) Gatmate
(2) Spore mother cells
(3) Spore
(4) Oospore

13. Aquatic **Riccia** are
(1) Free floatin (2) Submerged
(3) Amphibians (4) Suspnded

14. Spores release from sporogonium in **Riccia** take place in
(1) Dry season (2) Wet-season
(3) High temperature (4) Low -temperature

15. Cell of clyptra and wall of sprogonium in **Riccia** are respecitvely
(1) Diploid, Diploid (2) Haploid, Haploid
(3) Triploid, Triploid (4) Haplooid, Diploid

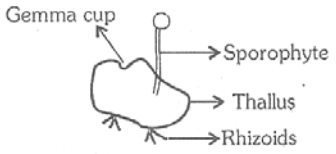
16. Sex-organ in **Riccia** develop on
(1) Dorsal surface in acropetal order
(2) Dorsal surface in basipetal order
(3) Ventral surface in acropetal order
(4) Ventral surface in basipetal order

17. Which sttatement/s is / are true
(1) In **Riccia,** sporophyte is made up of only capsule
(2) In **Riccia** thallus rhizoids are present on venral (adaxial) surface
(3) Six to eight cells are present in the axis of archegonium of **Riccia**
(4) All of these

18. Indry weather, **Riccia** survives in form of
(1) Tubers (2) Persistent apices
(3) Spores (4) All the above

19. At the time of fertilization, how many cell/cells/is are present in the axis of archegonium of **Riccia**
(1) One (2) Two
(3) Three (4) Four

20. Given diagram related to which plant group



(1) Thallophyta
(2) Pteriophyta
(3) Brophyta
(4) Gymnosper

21. During formation of calyptra jacet cells divided by
(1) Priclinal divison (2) Anticlinal division
(3) Both 1 & 2 (4) Digonal division

22. In which of the following groups would you place a plan which produces spores and embryos but lacks seeds and vascular tissue
(1) Bryophytes (2) Pteridophytes
(3) Gymnosperms (4) Fungi

23. In aquatic **Riccia**
(1) Rhizoids absent
(2) Scales poorly developed or absent
(3) Air canals more developed
(4) All the above

24. Which characteristic assgin **Riccia** to Bryophyta
(1) Depended saprophyte
(2) Plant body thallus
(3) Free gametophyte
(4) Non vascular

25. In the life cycle of **Riccia** from 20 Androgonial cells, how many antherozoids willb e formed
(1)10 (2) 20 (3) 40 (4) 80

26. Riccia is similar to Pteridium in
(1) Structure of sporophyte
(2) Free gametophyte
(3) Prasitic sprophyte
(4) Position of sex organ

27. Which structure protects apical meristem in **Riccia**
(1) Apical notch (2) Scales
(3) Primordial leaves (4) 1 and 2 both

28. Which species of **Riccia** reproduces by Persistent apices
(1) ***R.glauca*** (2) ***R.curtisi***
(3) ***R.bischoffii*** (4) ***R.discolor***

29. ***Riccia*** assigned to Hapaticopsida because
(1) Its sporophyte is semi parasite
(2) It is non vascular
(3) It has jacketed sex organ
(4) It is liver wort

30. the cell wasll of mature spores in **Riccia** have
(1) One layer (2) Two layer
(3) Three layer (4) None of these

31. if '6' chromosomes are present in each cell of the spore tetrad of **Riccia,** how many chromosomes should be present in the cells of apical cell and calyptra, respectively
(1) 6 & 12 (2) 6 & 6
(3) 12 & 6 (4) 3 &6

32. Bryophtes grow in moist and shay environments because
(1) They cannot not grow on land
(2) They requires water for fertilization
(3) They lack vascular tissue
(4) They lack roots and stomata

33. What is the function of the Ventral scales of **Riccia**
(1) Fixation
(2) Absorption & protection
(3) Protection
(4) Perennation & protection

34. n **Riccia,** stomata are found on
(1) Dorsal assimilatory region
(2) Sprorangium
(3) Ventral scales
(4) No where on **Riccia**

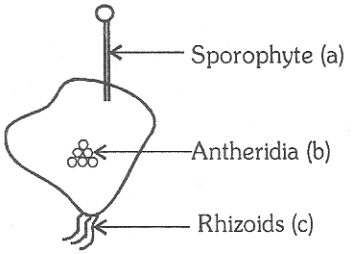
35. Violet colour of Scales of **Riccia** is due to
(1) Presnece of anthocyanin pigment in cytoplasm
(2) Present of nthocyaning pigment in cell-sap
(3) Presence of anthocyaning pigment in chlroplast
(4) None of these above

36. In **Riccia** what is the first & last stage ofgametophytic generation
(1) gamete and spore
(2) spore & gamete
(3) spore mother cell & zygote
(4) sporocyte & gamete

37. The gametangia of **Riccia** are present on
(1) Dorsal side
(2) Ventral side
(3) Dorsal surface in median groove
(4) Any where in the thallus

38. In the life cycle of **Riccia,** the stage in which meosis occurs, is
(1) Sporogonium (2) Oospore
(3) Spore mother cell (4) Gamete formation

39. Given a picture of Bryophyte. The correct poloidy levels of the indicated structures are



(1) (a) ; 2N (b) ; N (c) ; N
(2) (a) ; N (b) ; N (c) ; N
(3) (a) ; N (b) ; 2N (c) ; 2N
(4) (a) ; 2N (b) ; N (c) ; 2N

40. Conducting tissue in **Riccia** is made up of
(1) Parenchyma
(2) Collenchyma
(3) Xylem & phloem
(4) thick walled cells

41. The nature of movement of antherozoids in **Riccia** is
(1) Phototactic (2) Chemotactic
(3) Chemotrophic (4) Chemonostic

42. The simplest sporophyte among bryophyte is of
(1) ***Riccia*** (2) ***Marchantia***
(3) ***Antheoceros*** (4) Moss

43. In **Ricca** the shape of antheridium is
(1) Oval (2) Spherical
(3) Pear-shaped (4) Flask-shaped

44. **Riccia** and other byryophytes differ from algae in
(1) Discoidal chloroplat and absence of pyrenoids
(2) Jacketed gamatengia and absence of pyrenoid
(3) Mitotic development of Oopsore into embryo
(4) All

45. In **Riccia** what is first cell of gametophytic and first cell of a sprophytic generation respectively
(1) Gameete & spore (2) Spore & Oospore
(3) oospore & spore (4) Spore & Gamete

46. In **Riccia** reduction division take place in
(1) Archegonium (2) Antheridium
(3) Capusul (4) Rhizoids

47. **Riccia** is bryophyte because
(1) In occurs mostly on land and have motile sperm
(2) it has heteromorphic alternatioin of generation
(3) It has multi celled sex organs with a jacekt of sterile cells
(4) Sporophyte depends upon gametophyte.

48. The positive evidnece of aquatic ancestry of **Bryophyte** is :
(1) Their green colour
(2) Thread like protonema
(3) Flagellated antherozoids
(4) Some bryophytes are sill aquatic

49. What is the most common method of vegetative reproduction in **Riccia**
(1) Fragmentation
(2) Formation of adventitious bud s
(3) Progressive death and decay of older parts of the thallus
(4) Tuber formation

50. The assimilatory tissue of **Riccia** thallus is made up of
(1) Assimilatory fimlaments
(2) Spongy mesophyll
(3) Palisade tissue
(4) 2 & 3 both

51. Exchange of gases into assimilatory region occurs via
(1) Stomata (2) Air pores
(3) Lenticles (4) All

52. Which structures causes apical growth in **Riccia**
(1) Promeristem
(2) Procambium
(3) Transeverse row of apical cell
(4) All of these

53. The neck canal of **Riccia** archegonium is filled up with
(1) 2 – cells (2) 4-6 cells
(3) 6-12 cells (4) 24 cells

54. Sprophyte of **Riccia** possess
(1) Foot & Seta
(2) Foot and capsul
(3) Foot, seta & capsule
(4) Capsule only

55. The sporophyte is completely depended on gametophyte in
(1) ***Riccia*** (2) ***pteris***
(3) ***Cycas*** (4) ***Pinus***

56. Calyptra is a structure
(1) Formed by the venter archegonium
(2) Formed at the base of antheridium
(3) Formed in the centre of the capsule
(4) Formed at the base of leaves

57. The rhizoids of **Riccia** are
(1) Uniclelular and coloured
(2) Unicellular and colouless
(3) Multicellular and Green
(4) Multicellular and brown

58. The shape of apical cell in **Riccia** is
(1) Pyramidal (2) Tetrahedrdal
(3) Trigonal (4) None

59. Storage region in **Riccia** is made up of
(1) collenchyma (2) Parenchyma
(3) Sclerenchyma (4) All of these

60. The spores from **Riccia** capsule are released
(1) Through stomium & annulus
(2) Trhough transverse slit
(3) Through vertical slit
(4) on decay of thallus

61. The jacket of antheridium in **Riccia** is made up of
(1) One layer of three cells
(2) One layer of many cells
(3) Two layer of many cells
(4) Many layer of many cells

62. Shape of chloroplast in asimilatory zone of **Riccia** is
(1) Girdle shaped (2) Spiral
(3) Discodial (4) Cake like

63. Photoshynthetic filaments occur in : **[RPMT 2000]**
(1) ***Nostoc*** (2) ***Chlamydomonas***
(3) ***Phytopthora*** (4) ***Riccia***

64. Which of the following is correct statement
(1) No diploid structure is found in mature sporogonium of ***Riccia***
(2) Sporogonium of ***Riccia*** is differentiated in foot seta and capsule
(3) Sporogonium and spore mother cells of ***Riccia*** have chloroplast
(4) None

65. Which type of rhizoids are present in ***Riccia*** **[RPMT 2002]**
(1) Unicellular and smooth
(2) Multicellular and smooth
(3) Unicellular, smooth & tuberculated
(4) Multicellular smooth & tuberculated

66. Antherozoids of Riccia **are :[RPMT 2003]**
(1) Long, curved and multiflagellate
(2) Small and non-flagellate
(3) Small, curved (comma shaped) and biflagellate
(4) Rod shaped and biflagellate

67. Sorophyte of **Riccia** *is :* **[RPMT 2005]**
(1) Saprophyte (2) Partial parasite
(3) Complete parasite (4) None

68. A student came from U.P. to Rajasthan to study on ***Riccia discolor*** a species of ***Riccia*** found in dry habitat. When dry season becomes staft the observed, a mass of multicellular structure formed, due to fast division of apical cell of the apex of every branch, in which food materials stored and develop a thick protective layer around it after degeneration of marginal cell. This perennating body called as
(1) Rhizoids (2) Tuber
(3) Rhizom (4) Persistente apices

69. An order of development of structure successively towards the apex, the oldest at the base and younget nearest the apex called as
(1) Acropetal (2) Basipetal
(3) Both (1) & (2) (4) None of these

70. An order of development of organs in which the youngest structures are at the base and the oldest at the apex, called as
(1) Acropetal (2) Basipetal
(3) Both (1) and (2) (4) None of these

RICCIA EXERCISE

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	**3**	**2**	**2**	**1**	**3**	**3**	**3**	**2**	**1**	**2**	**3**	**1**	**1**	**2**	**4**
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	**1**	**4**	**4**	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**2**	**2**	**4**	**4**	**3**
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	**2**	**2**	**2**	**4**	**2**	**2**	**3**	**3**	**1**	**1**	**2**	**1**	**1**	**4**	**2**
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	**3**	**4**	**3**	**3**	**1**	**2**	**3**	**2**	**4**	**1**	**1**	**2**	**1**	**2**	**4**
Que.	61	62	63	64	65	66	67	68	69	70					
Ans.	**2**	**3**	**4**	**1**	**3**	**3**	**3**	**2**	**1**	**2**					