
	<b>INDIAN SCHOOL AL WADI AL KABIR</b>		
Class: XI	Department: SCIENCE 2022 – 23 SUBJECT : BIOLOGY	Date of submission: 14.09.2022	
Worksheet 4 WITH ANSWERS	CHAPTER – PLANT KINGDOM	Note: A4 FILE FORMAT	
NAME OF THE STUDENT		CLASS & SEC:	ROLL NO.

### **MULTIPLE CHOICE QUESTIONS**

1. A plant that has seeds but no flowers and fruits?
  - (a) Bryophytes
  - (b) Gymnosperms
  - (c) Mosses
  - (d) Pteridophytes
  
2. Pteridophytes differ from mosses in
  - (a) Independent gametophyte
  - (b) Dependent gametophyte
  - (c) Flagellate antherozoids
  - (d) Independent and dominant sporophyte
  
3. Plants having vascular tissue without seeds
  - (a) Angiosperm
  - (b) Pteridophytes
  - (c) Bryophytes
  - (d) Gymnosperms
  
4. A colonial alga is
  - (a) Volvox
  - (b) Chlorella
  - (c) Ulothrix
  - (d) Spirogyra
  
5. Agar is commercially obtained from
  - (a) Blue-green algae
  - (b) Red algae

- (c) Brown algae
  - (d) Green algae
6. Which one is responsible for the formation of peat?
- (a) *Riccia*
  - (b) *Sphagnum*
  - (c) *Marchantia*
  - (d) *Funaria*
7. Vascular bundles are not found in
- (a) Gymnosperms
  - (b) Pteridophytes
  - (c) Angiosperms
  - (d) Bryophytes
8. Rhodophyceae is called red algae because of the pigment
- (a) Fucoxanthin
  - (b) Phycoerythrin
  - (c) Carotenoids
  - (d) Chlorophyll c
9. Which of the following is a liverwort?
- (a) Sphagnum
  - (b) Funaria
  - (c) Marchantia
  - (d) Polytrichum
10. In gymnosperms, the development of pollen grains occurs in
- (a) Strobili
  - (b) Microsporangia
  - (c) Megasporangia
  - (d) Macrosporangia
11. Bryophytes are called amphibians of plant kingdom because
- (a) These plants live in soil and depend on marine organisms for asexual reproduction.
  - (b) These plants live in soil and depend on water for sexual reproduction.
  - (c) These plants live in water and depend on land animals for sexual reproduction.
  - (d) These plants live near water bodies.
12. An alga that can be employed as food for the human being is:
- (a) Ulothrix

- (b) Chlorella
  - (c) Spirogyra
  - (d) Polysiphonia
13. Which one of the following statements is wrong?
- (a) Agar-agar is obtained from Gelidium and Gracilaria
  - (b) Chlorella and Spirulina are used as space food
  - (c) Mannitol is stored food in Rhodophyceae
  - (d) Algin and carrageen are products of algae
14. Select the correct statement:
- (a) Gymnosperms are both homosporous and heterosporous
  - (b) Salvinia, Ginkgo and Pinus all are gymnosperms
  - (c) Sequoia is one of the tallest trees
  - (d) The leaves of gymnosperms are not well adapted to extremes of climate
15. Zygotic meiosis is characteristic of:
- (a) Fucus
  - (b) Funaria
  - (c) Chlamydomonas
  - (d) Marchantia
16. Fusion of two motile gametes which are dissimilar in size is termed as
- (a) oogamy
  - (b) isogamy
  - (c) anisogamy
  - (d) zoogamy
17. A prothallus is
- (a) a structure in pteridophytes formed before the thallus develops
  - (b) a sporophytic free-living structure formed in pteridophytes
  - (c) a gametophyte free-living structure formed in pteridophytes
  - (d) a primitive structure formed after fertilization in Pteridophytes
18. Protonema is
- (a) haploid and is found in mosses
  - (b) diploid and is found in liverworts
  - (c) diploid and is found in pteridophytes
  - (d) haploid and is found in pteridophytes
19. Floridean starch is found in
- (a) red algae
  - (b) brown algae
  - (c) green algae
  - (d) blue-green algae
20. Which one of the following does not have flagellated male gamete?
- (a) red algae
  - (b) brown algae

- (c) mosses
- (d) green algae

**TWO MARKS QUESTIONS**

- 21. Name two pigments other than chlorophyll that are found in algae which help in grouping them into red and brown algae.
- 22. Distinguish between protonema and prothallus
- 23. Why mosses are considered as amphibians of plant kingdom
- 24. Differentiate between cryptogams and phanerogams

**THREE MARKS QUESTIONS**

- 25. Explain the following
  - (i) Sporophyll (ii) Isogamy (iii) Anisogamy
- 26. Explain briefly the life cycle of bryophytes.
- 27. Tabulate a comparative study of different classes of algae
- 28. Give a brief account of economic importance of algae

**Hints/Solution**

Qn. No	Ans	Qn. No	Ans
1	b	11	b
2	d	12	b
3	b	13	c
4	a	14	c
5	b	15	c
6	b	16	c
7	d	17	c
8	b	18	a
9	c	19	a
10	b	20	a

21	Fucoxanthin – brown algae and phycoerythrin – red algae, reason	2
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22	Protonema – creeping stage of gametophyte in bryophytes, prothallus – gametophyte of pteridophytes	2
23	They are land plants but need water for reproduction	2
24	Cryptogams – plants with hidden reproductive structures, lower groups; Phanerogams – plants with exposed reproductive structures -, higher groups	2
25	(i) Sporophyll – spore bearing leaves in lower groups (ii) Isogamy - fusion of similar gametes (iii) Anisogamy – fusion of different gametes	3
26	Life cycle -explanation	3
27	Table – NCERT text book	3
28	Economic importance of Chlorophyceae, phaeophyceae and Rhodophyceae	3

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