

Reg.No.....

FYCBTA22/2

Name.....

FIRST YEAR HIGHER SECONDARY PRE MODEL EXAMINATION

Part – III

BIOLOGY

PART – A: BOTANY

(Maximum: 30 Scores)

Plant kingdom

Time: I Hour

Cool-off time: 10 Minutes

PART I

Answer any seven questions from 1 to 10. Each carries 1 score.

(7x1=7)

1. Observe the relationship between the first pair and fill in the blank.

Fucoxanthin: *Brown algae*

Phycocerythrin: _____

2. Asexual reproduction in *Liver worts* takes place by the formation of special structures called _____

3. Which one is “Peat Moss”?

(a) *Funaria*

(c) *Sphagnum*

(b) *Polytrichum*

(d) *Marchantia*

4. Fill in the blank

The female sex organ in a flower is the _____

5. Angiosperms are divided into two classes. Name the two classes.

6. Select the plant group which shows haplo-diplontic life cycle.

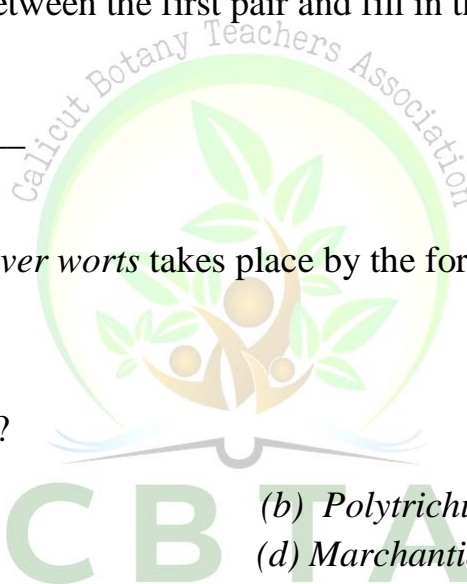
(a) *Algae*

(b) *Gymnosperms*

(b) *Bryophytes* and *Pteridophytes*

(d) *Angiosperms*

7. Expand PEN.



8. Name an alga which is rich in proteins and used as food supplement by space travellers.
9. In which plant group *liverworts* and *mosses* are included.
10. Name the plant group given below in which *horsetails* and *ferns* are included?
(c) *Algae* (b) *Pteridophytes*
(d) *Gymnosperms* (d) *Bryophytes*

PART II

Answer any seven questions from 11 to 20. Each carries 2 scores.

(7x2=14)

11. Differentiate between *chemotaxonomy* and *cytotaxonomy*.
12. Leaves in gymnosperms are well-adapted to reduce water loss. Write any two adaptations.
13. List the four classes of Pteridophytes.
14. Agar is a commercial product obtained from Algae.
(a) Name an algae from which Agar is obtained.
(b) Write any two uses of Agar.
15. Which group of the plant kingdom is called as *amphibians of the plant kingdom* and why?
16. Write any two ecological importances of Bryophytes.
17. Define:-
(i) Protonema (ii) Prothallus
18. (a) What is numerical taxonomy?
(b) What is its significance?

19. Match the following

	A		B
(a)	<i>Sequoia</i>	1	Red Algae
(b)	<i>Wolffia</i>	2	Brown Algae
(c)	Algin	3	Giant red wood Tree
(d)	Carrageen	4	Smallest Angiosperm

20. Name the plant groups

- (a) *Naked seeded plants*
 (b) *First vascular terrestrial plants*

PART III

Answer any three questions from 21 to 25. Each carries 3 scores. (3x3=9)

21. Explain the three systems of biological classification.

22. Analyse the table and fill in the blanks

Classes	Common Name	Major Pigments	Stored Food
Chlorophyceae	(a).....	Chlorophyll a,b	(b).....
(c).....	Brown algae	Chlorophyll a,c	Mannitol, Laminarin
(d).....	(e).....	Chlorophyll a,d	(f).....

23. Some pteridophytes produce two types of spores – microspores and macrospores.

- (a) What is this phenomenon?
 (b) Name any two pteridophytes which show this phenomenon.
 (c) What is its evolutionary importance?

24. Sexual reproduction in Algae takes place through fusion of two gametes.

Explain the three kinds of gametic fusion in Algae.

25. Double fertilisation, is an event unique to angiosperms.

- (a) What is double fertilisation?
 (b) Name the products obtained by double fertilisation.

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