

SETHU BHASKARA MAT. HR. SEC. SCHOOL

11th std BOTANY (LONG VERSION) 70 marks
 Quarterly Examination - Answer Key

1 Choose the most suitable answer:-

(15 x 1 = 15)

1)	a)	Lack of motile structures	1 mark
2)	b)	Monera	1 mark
3)	b)	Before fertilization	1 mark
4)	a)	A B C D (ii) (iii) (iv) (i)	1 mark
5)	a)	Osmunda	1 mark
6)	d)	Allamanda - Ternate phyllotaxy	1 mark
7)	b)	Halophytes	1 mark
8)	a)	Fabaceae	1 mark
9)	c)	Axile	1 mark
10)	d)	Scrotaxonomy	1 mark
11)	b)	Scorpioid Cyme	1 mark
12)	a)	Aeschynomene aspera	1 mark
13)	a)	In <u>Pisum sativum</u> leaflets modified into ^{tendrils}	1 mark
14)	c)	42	1 mark
15)	b)	Bacteria - Crown gall	1 mark

Section - B

Answer any six questions (Q. no 24 is compulsory)

6 × 2 = 12

- 16) Yes, Bryophyte need water for fertilization, as antherozoids are flagellated and need to swim towards archegonium. - 2 marks
- 17) Symbiotic association between algae and fungi. Algal partner - phycobiont
Fungal partner - Mycobiont. - 2 marks
- | 18) <u>Root climber</u> | <u>Stem climber</u> |
|--|---|
| Plants climbing with the help of adventitious roots arise from nodes are called root climbers.
eg:- Piper nigrum. | The stem part itself coils around a support for climbing.
eg:- Clitoria
2 points
- 2 marks |
- 19) Give technical terms :-
- Sterile stamen - staminode - $\frac{1}{2}$ m
 - Stamens united in one bunch - Monodelphous
 - Stamens attached to petals - Epipetalous - $\frac{1}{2}$ m
- 1 m
- 20) Class:- Dicotyledonae
Series:- Calyciflorae
Sub-class:- Polypetalae. } - 2m.

21. Binomial nomenclature:- Scientific name of a species of two words and according to binomial nomenclature, first one is called genus name and second one is specific epithet
 eg:- Mangifera indica 2marks

22. Apocarpous
 Carpels are free
 eg:- Annona

Syncarpous
 Carpels are fused.
 eg:- lady's finger. 2marks

23. Nucule :- female sex organ - Chara - 1m
 found above the globule - 1m

24* Mycoplasma - Diagram - 1m.
 Parts - 1m.

SECTION - C

Answer any six questions (Q.no 33 compulsory)

6x3=18

25. Features of monera

- Kingdom - Monera
- Cell type - Prokaryotic
- Level of organization - Unicellular.
- Cell wall - peptidoglycan.
- Nutrition - Autotrophic / Heterotrophic
- Motility - Motile / Non motile
- Organisms - Archaeobacteria, Eubacteria

} 3marks

7

26)

L.S of Cycas Ovule:-

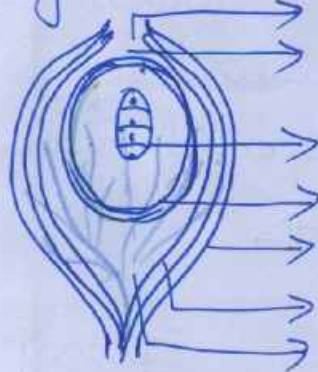


Diagram:- 1/2 marks
 Parts: 1/2 marks
 Micropyle
 Pollen chamber
 Megaspore
 Female gametophyte
 Outer layer
 Middle layer
 Inner layer.

27

Phylloclade

- * Flattened, cylindrical or angled stem.
- * leaves modified into spines
- eg:- Opuntia

1/2 mark

Cladode.

- Similar to phylloclade with one or two internodes
- leaves are caducous
- eg:- Asparagus

1/2 mark

28.

Shape of Chloroplast in Algae

any six = 3 mark

- 1) Cupshaped - Chlamydomonas
- 2) Discoid - Chara
- 3) Girdle shaped - Ullothrix
- 4) Reticulate - Oedogonium
- 5) Spiral - Spirogyra
- 6) Stellate - Zygnema
- 7) Plate-like - Mougeotia

<p>29. <u>Sympodial Branching</u></p> <ul style="list-style-type: none"> * Terminal bud ceases to grow * Determinate growth <p>eg Cycas 1½</p>	<p><u>Monopodial Branching</u></p> <ul style="list-style-type: none"> * Terminal continues to grow Indeterminate growth. <p>Eg: Polyalthia 1½m</p>
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30. Three characteristics of leaf - 3m.
(Any three points)

<p>31. <u>Gymnosperms</u></p> <ol style="list-style-type: none"> 1) Vessels absent 2) Double fertilization absent 3) Wind pollination only 4) Ovules naked 5) Endosperm haploid 6) Flowers absent 	<p><u>Angiosperms</u></p> <p>Vessels present</p> <p>Double fertilization present</p> <p>Insects, Wind, water animals are pollinators</p> <p>Ovules enclosed ovary</p> <p>Endosperm triploid</p> <p>Flowers present.</p>
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Any six points - 3m.

32. Floral Characters of Clitoria ternatea
Any three points - 3marks

Inflorescence, Flower, Calyx, Corolla, Androecium, Gynoecium, Fruit, Seed.

6

33

Racemose

- ★ Main axis of growth unlimited
- ★ Acropetal succession
- ★ Centripetal
- ★ Oldest flower at base

Cymose

- Main axis of limited growth
- Basipetal succession
- Centrifugal.
- Oldest flower at the top.

3 points - 3 marks

Section - D

Answer the following :- $5 \times 5 = 25$

34)

a) Life Cycle of Agaricus - 5 marks

(or)

b) Gram positive and Gram negative bacteria - Any 5 points - 5 marks

35)

a) Protoxylem - Explanation - 3 marks

(or)

Diagram - 2 marks

b) T.S of rachis - Cycas

Explanation - 3 marks

Diagram - 2 marks

36)

a) Regions of root Explanation - 3 marks

(or)

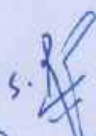
Diagram - 2 marks

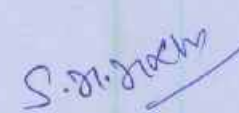
b) Phyllotaxy def (1m) Types + - 4m.

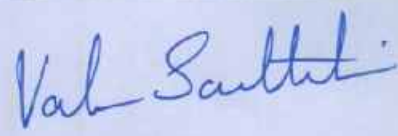
Diagram.

- 37) a) Fleshy Fruits - Any Five types - 5 marks
with diagram
(or)
- b) Placentation - Types with diagram - 5 marks

- 38) a) Role of National Botanical gardens
Any five points - 5 marks
(or)
- b) Bentham and Hooker system of classification - 5 marks


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H.M. Signature 11/6/22