

# Sethu Bhaskara Matric Hr. Sec. School

## Class: 12 First Revision Exam Marks: 35

### Bio. Botany Answer Key

#### Section-A

	Marks
I Choose the most suitable answer:	8x1=8
01. b) 1975	1
02. d) Azolla pinnata	1
03. c) exenolatin	1
04. b) $NAD^+$	1
05. b) Haberlandt	1
06. d) 38.2	1
07. a) Phellogen	1
08. a) Petunia hybrida	1

#### Section-B

II. Answer Any 4 : 4x2=8

09. Draw any types of Chromosome based on position of centromere

1) Acrocentric

2) Telocentric

3) Submetacentric

4) Metacentric

} Any two

} Diagrams 2x1=2

10. Respiratory Quotient is infinity in Anaerobic respiration:

\* In anaerobic respiration, carbon dioxide 2 is evolved but oxygen is not consumed.

\* RQ of Anaerobic Respiration =  $\frac{2 \text{ moles of } CO_2}{\text{Zero moles of } O_2}$   
 =  $\infty$  (Infinity)

11. Biosystematics & Its Aim:

Definition.  
 \* Biosystematics is defined as taxonomy of living population.

Aims.  
 \* To delimit naturally occurring biotic community of plant species.  
 \* To recognise various groups as separate categories such as ecotype, ecospecies, cenospecies and conparium.

1/2  
 1 1/2

12. Botanical name with family of:  
 (a) Tea k (b) Groundnut:

Tectona grandis - Arachis hypogea }  
 Verbenaceae. Fabaceae. } 1

one Economic importance } 1

2

13. Differentiate Palisade and Spongy parenchyma:

Palisade Parenchyma  
 \* Rectangular closely arranged  
 \* More chloroplast  
 \* Help in photosynthesis  
 \* Found below the upper epidermis

Spongy Parenchyma  
 Irregular and loosely arranged  
 Less chloroplast  
 Help in gaseous exchange.  
 Found below the Palisade parenchyma

} 2  
 Any 2

14 SCP not popular for human consumption:  
Any 2 Points

2

### Section-C

III. Answer Any 3, Q.No: 18 is Compulsory:  $3 \times 3 = 9$

15 Frederick Griffith Experiment with Schematic representation:

Explanation - 2

Schematic representation - 1

3

16. Different types of Meristems based on their positions:

Explanation - 2

diagram - 1

3

17. Tabulate the role of Microbes in Medicine

\* Penicillin *Penicillium notatum* Pneumonia.

\* Streptomycin *Streptomyces griseus* Tuberculosis, Meningitis etc.

\* Aureomycin. *Streptomyces aureofaciens* Osteomyelitis, Whooping

\* Chloromycetin *Streptomyces venezuelae* Cough etc. typhoid.

\* Bacitracin *Bacillus licheniformis* Syphilis

- Any 3

3

18 ICBN: (Compulsory)

- Any three points

3

Alternative route for Carbohydrate breakdown: (PPP)

★ Pentose Phosphate Pathway - 1

★ Any two significance - 2

3

Section - D

IV Answer the following:

2x5=10

20 (a) Out line of Bentham and Hooker's Classification of plants:

★ Flow chart - 5

5

(b) Vascular Tissue System:

★ Notes - 4

★ Diagrams - 1

5

21 (a) Non cyclic Photophosphorylation:

★ Identification: Non cyclic photophosphorylation - 1

5

★ Flow chart: - 4

(b) rDNA Technology:-

★ Explanation - 4

★ Diagrams - 1

5

Handling Teachers:

01. S. Robert

02. S.M. Mathan

03. Mrs. Valareena

HM's Sign