

JAI SAKTHI MATRIC HIGHER SEC SCHOOL - PALACODE

BIO-BOTANY

Class-11th std

Time-1hr 15mins

Date -

Mark-50

Part I

Choose the correct answer

10x1=10

1. Identify the Archaeobacterium

- a. *Acetobacter* b. *Erwinia* c. *Treponema* d. *Methanobacterium*

2. Identify the incorrect statement about the Gram positive bacteria

- a. Teichoic acid absent b. High percentage of peptidoglycan is found in cell wall
c. Cell wall is single layered d. Lipopolysaccharide is present in cell wall

3. Which of following represent gametophytic generation in pteridophytes

- a. Prothallus b. Thallus c. Cone d. Rhizophore

4. Endosperm in Gymnosperm is formed

- a. At the time of fertilization b. Before fertilization
c. After fertilization d. Along with the development of embryo

5. *Curcuma amada*, *Curcuma domestica*, *Asparagus*, *Maranta* are example of

- a. Tuberos root b. Beaded root c. Moniliform root d. Nodulose root

6. *Bryophyllum* and *Dioscorea* are example for

- a. Foliar bud, apical bud b. Foliar bud, cauline bud
c. Cauline bud, apical bud d. Cauline bud, foliar bud

7. Aggregate fruit develops from

- a. Multicarpellary, apocarpous ovary b. Multicarpellary, syncarpous ovary
c. Multicarpellary ovary d. Whole inflorescence

8. A true fruit is the one where

- a. Only ovary of the flower develops into fruit

- b. Ovary and calyx of the flower develops into fruit
 - c. Ovary, calyx and thalamus of the flower develops into fruit
 - d. All floral whorls of the flower develops into fruit
9. The correct sequence in cell cycle is
- a. S-M-G₁-G₂
 - b. S-G₁-G₂-M
 - c. G₁-S-G₂-M
 - d. M-G-G₂-S
- 10 In meiosis crossing over is initiated at
- a. Diplotene
 - b. Pachytene
 - c. Leptotene
 - d. Zygoten

Part II

Short answer (any six)

6x2=12

- 1 Differentiate Homoiomerous and Heteromerous lichens?
2. What is plectostele? give example.
3. Mention two characters shared by gymnosperms and angiosperms.
4. Why lateral roots are endogenous?
5. Compare sympodial branching with monopodial branching.
6. Explain the different types of fleshy fruit with suitable example.
- 7 Differentiate between mitosis in plant and animal?
8. Short notes on closed and open mitosis?

Part III

Answer the following questions (any six)

6x3=18

1. Give a general account on lichens?
2. Differentiate hapontic and diplontic life cycle?
3. Write the similarities and differences between
 - a. *Avicennia* and *Trapa*
 - b. Banyan and silk cotton
 - c. Fusiform and Napiform root
4. How root climbers differ from stem climbers?

5. Differentiate between aggregate fruit with multiple fruit?
6. Write any three significance of mitosis?
7. Write about Pachytene and Diplotene of Prophase I ?
8. Given an account of G0 phase?

Part IV

Answer in detail.

2x5=10

1. A) Briefly discuss on five kingdom classification. Add a note on merits and demerits?

OR

B) Explain the different types of placentation with example.

2. A) Differentiate between mitosis and meiosis

OR

B) Difference between the gram positive and gram negative bacteria?

Question created by: _____

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