| Name : | |
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| Roll No. : | A Description of Conference |
| Invigilator's Signature : | |

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CS/B.Pharm/SEM-1/PTB-101/2011-12 2011 REMEDIAL BIOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

- 1. Choose the correct alternatives for any ten of the following : $10 \times 1 = 10$
 - i) The pitchers of insectivorous pitcher plant (*Nepenthes sp.*) are modified
 - a) Fruit b) Adventitious root
 - c) Leaf Lamina d) Inflorescence.
 - ii) The stone cells of Guava fruit is an example of
 - a) Branchysclereids b) Colenchyma
 - c) Parenchyma d) None of these.
 - iii) The evolutionary history of any group of organism is termed as
 - a) Taxonomy b) Phyllotaxy
 - c) Phylogeny d) Phytoalexin.

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|----------|--|-----------------------------|-------|--------------------|--|
| iv) | Intermediate host of schistosoma is | | | | |
| | a) | mosquito | b) | fly | |
| | c) | fresh water snail | d) | pig. | |
| V) | Red | uctional cell division is a | anoth | ner name of | |
| | a) | amitosis | b) | mitosis | |
| | c) | meiosis | d) | furrowing. | |
| vi) | Cystolith of Indian rubber tree is crystal of | | | | |
| | a) | Silicon dioxide | b) | Calcium oxalate | |
| | c) | Ferric chloride | d) | Calcium carbonate. | |
| vii) | The | filarial parasite is trans | mitte | ed by | |
| | a) | female anopheles | b) | male culex | |
| | c) | male anopheles | d) | female culex. | |
| viii) | Man | go is an example of | | | |
| | a) | Drupe | b) | Berry | |
| | c) | Caryopsis | d) | Nut. | |
| ix) | Signet ring is observed in the life cycle of | | | | |
| | a) | plasmodium | b) | trypanosoma | |
| | c) | taenia | d) | ascaris. | |
| X) | Orcl | nid is an example of | | | |
| | a) | Epiphyte | b) | Saprophyte | |
| | c) | Parasite | d) | None of these. | |
| xi) | Development of fruit without fertilization is called | | | | |
| | a) | Parthenocarpy | b) | Apogamy | |
| | c) | Hespiridium | d) | Agamosamy. | |
| xii) | i) Energy is stored in the mitochondria in the form of | | | | |
| | a) | AMP | b) | Cyclic AMP | |
| | c) | Glucose | d) | ATP. | |
| | | | | | |

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xiii) Which of the following is not a subaerial modification of stem ?

- a) Runner b) Sucker
- c) Stolen d) Corm.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

- 2. Write in brief about the sexual system of plant classification.
- 3. Write a note on binomial nomenclature.
- 4. Differentiate between anopheles and culex mosquito on the basis of their life cycle.
- 5. Write down the advantages and disadvantages of cross pollination.
- 6. Write the difference between the following : $2 \times 2\frac{1}{2}$
 - a) Eukaryotic cell and prokaryotic cell.
 - b) Meristematic tissues and permanent tissues.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

- 7. a) What do you mean by essential and accessory whorl of a typical flower ? 2
 - b) Differentiate actinomorphic flower and zygomorphic flower. 2
 - c) What does the term epipetalous mean ? 1

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- d) Describe briefly different types of placentation with suitable diagram.
- e) What do you mean by syncarpous & apocarpous ovary? 2
- 8. What is Meiosis ? Which types of cells participate in this cell division ? Give a detail description of Prophase I of Meiosis. Write about cytokinesis of mitotic division of plant cell.

1 + 2 + 9 + 3

- 9. Write the systematic position of *Plasmodium vivax*. Describe the life cycle of plasmodium in man.
- 10. Write short notes on the following : 3×5
 - a) Structure of a silk gland using a neat labelled diagram.
 - b) Morphological difference between male and female blood fluke.
 - c) Sub-aerial modifications of stem.
- 11. What is Tap root system ? What are the different zones of Tap root system ? Write in detail, about modification of roots in respect to their special mechanical function. What is Pneumatophore and Epiphytic root ? 1 + 3 + 8 + 3

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