Exam.Code:0003
Sub. Code: 0253

2121

B.A./B.Sc. (General) Third Semester

Botany

Paper - A: Diversity of Seed Plants and their Systematics

Time allowed: 3 Hours Max. Marks: 36

***NOTE**: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

*x-x-x*

I. A. Multiple Choice Questions (MCQ):

i) Which is the largest order in gymnosperm

a) Ginkgoales

b) Cycadales

c) Coniferales

d) Gnetales

ii) Most common types of fossils are

a) Impressions

b) Petrifactions

c) Casts

d) Compressions

iii) In coralloid roots, algal zone is present in

a) Pith

b) Cortex

c) Vascular strand

d) All

iv) Which gymnosperm has largest number of species:

a) Cycas

b) Ephedra

c) Pinus

d) Ginkgo

P.T.O.

v) Dwarf shot in pinus and needles are together known as

a) Spur

b) Bulbils

c) Sucker

d) Leaves

vi) Which era is known as age of gymnosperms?

a) Palaeozoic

b) Cenozoic

c) Mesozoic

d) Azoic

B. Fill in the blanks:-

vii) Gymnosperm with longest neck is _____.

viii) Fossil resin used in making beads is _____.

ix) Suffix applied for naming fossil stem is _____.

x) Vascular supply to the leaves in cycas is called _____.

xi) Outline of needle in pinus monophylla is _____.

xii) Jointed firs is the name of _____. (12x1)

## UNIT – I

II. Write 12 characteristic of gymnosperms. (6)

III. a) Differentiate between gymnosperms and angiosperms (at least 6).

b) Draw a graphic life cycle of gymnosperms. (3,3)

## UNIT – II

IV. a) Describe various types of fossils.

b) How are fossils formed? (4,2)

V. Explain structure of lyginopteris, its stem, root, leaf and note on reproduction. (6)

## UNIT – III

VI. Describe the development of male and female gametophyte in cycas. (6)

VII. Write notes on:-

a) Structure of seed in cycas

b) Economic importance of cycas (4,2)

## UNIT – IV

VIII. a) Describe the structure of female cone of Pinus.

b) Write a note on spur. (4,2)

IX. a) Write notes on external features of Ephedra.

b) Write a note on Archigonium of Ephedra. (4,2)

*x-x-x*