SSR Degree and PG College(A)

Department of Botany

GYMNOSPERMS AND EMBRYOLOGY

SEM 2 INTERNAL 1

I.MCQS

1.Gymnosperms are called “naked seed plants” because

a) Seeds are without fruit wall

b) Seeds are very small

c) Seeds are green

d) Seeds are underground

Answer: a) Seeds are without fruit wall

2.The dominant generation in gymnosperms is

a) Gametophyte

b) Sporophyte

c) Protonema

d) Prothallus

Answer: b) Sporophyte

3.Coralloid roots are characteristic of

a) Pinus

b) Cycas

c) Ginkgo

d) Ephedra

Answer: b) Cycas

4.Motile sperms are found in

a) Pinus

b) Taxus

c) Cycas

d) Cedrus

Answer: c) Cycas

5.The largest ovules among plants occur in

a) Ginkgo

b) Cycas

c) Pinus

d) Ephedra

Answer: b) Cycas

6.Which gymnosperm is known as a “living fossil”?

a) Ginkgo biloba

b) Taxus

c) Pinus

d) Cedrus

Answer: a) Ginkgo biloba

7.Male cone of gymnosperms produces

a) Ovules

b) Seeds

c) Microspores

d) Fruits

Answer: c) Microspores

8.Female gametophyte in gymnosperms develops from

a) Microspore

b) Megaspore

c) Pollen grain

d) Embryo

Answer: b) Megaspore

9.The vascular tissue in gymnosperms mainly contains

a) Vessels only

b) Tracheids only

c) Companion cells

d) Sieve tubes

Answer: b) Tracheids only

10.Which gymnosperm has vessels in xylem?

a) Pinus

b) Cycas

c) Ephedra

d) Cedrus

Answer: c) Ephedra

11.Polyembryony means

a) Formation of many ovules

b) Formation of many seeds

c) Formation of more than one embryo

d) Formation of cones

Answer: c) Formation of more than one embryo

12.In Pinus, wings of seeds help in

a) Respiration

b) Germination

c) Dispersal

d) Nutrition

Answer: c) Dispersal

13.Archegonia are present in

a) Male cone

b) Female gametophyte

c) Root tip

d) Stem cortex

Answer: b) Female gametophyte

14.The pollen chamber is found in

a) Ovule

b) Stem

c) Root

d) Leaf

Answer: a) Ovule

15.Double fertilization is absent in

a) Angiosperms

b) Gymnosperms

c) Both

d) Bryophytes

Answer: b) Gymnosperms

16.The embryo of gymnosperms develops inside the

a) Fruit

b) Ovary

c) Seed

d) Anther

Answer: c) Seed

17.Taxus belongs to the order

a) Cycadales

b) Ginkgoales

c) Taxales

d) Ephedrales

Answer: c) Taxales

18.Podocarpus belongs to the order

a) Coniferales

b) Cycadales

c) Gnetales

d) Taxales

Answer: a) Coniferales

19.Ephedra resembles angiosperms due to presence of

a) Fruits

b) Vessels

c) Flowers

d) Rhizoids

Answer: b) Vessels

20.The study of embryo development is called

a) Cytology

b) Taxonomy

c) Embryology

d) Ecology

Answer: c) Embryology

II.FILL IN THE BLANKS

1.Gymnosperms are commonly known as __ seed plants.

Answer: naked

2.The study of Gymnosperms is called __.

Answer: Gymnospermology

3.The dominant phase in Gymnosperms is the __ generation.

Answer: sporophytic

4.In Gymnosperms, seeds are not enclosed within a __.

Answer: fruit

5.__ is known as a living fossil among Gymnosperms.

Answer: Ginkgo

6.The reproductive structures of Gymnosperms are called __.

Answer: cones

7.In Cycas, the coralloid roots contain __ algae.

Answer: blue-green

8.The scientific name of maidenhair tree is __.

Answer: Ginkgo biloba

9.In Pinus, male cones are also called __ cones.

Answer: microsporangiate

10.Female cones are also known as __ cones.

Answer: megasporangiate

11.The male gametes of Cycas are __.

Answer: motile

12.The ovules of Gymnosperms are borne openly on __.

Answer: megasporophylls

13.__ is an example of Coniferales.

Answer: Podocarpus

14.Taxus belongs to the order __.

Answer: Taxales

15.Ephedra belongs to the order __.

Answer: Ephedrales

16.The leaves of Cycas are __ compound.

Answer: pinnately

17In Gymnosperms, pollination usually occurs by __.

Answer: wind

18.The vascular tissue responsible for water conduction is __.

Answer: xylem

19.The female gametophyte develops from the __.

Answer: megaspore

20.Gymnosperms are important sources of __ and timber Answer: resin

III.DESCRIPTIVE QUESTIONS

1.Write the vegetative morphology and Anoatomy of the Zamia

2.Write the vegetative morphology of the Ginkgo

3.Development of female gametophyte in gymnosperms

4.Economic importance of gymnosperms

5. .Write the vegetative morphology and Anoatomy of the Ephedra