TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
II SEMESTER INTERNAL ASSESSMENT-II EXAMINATIONS
DEPARTMENT OF BOTANY
PAPER-II: GYMNOSPERMS AND EMBRYOLOGY
QUESTION BANK

I. Multiple Choice Questions **10 X 1/2 = 05 Marks**

1. Male gametophyte of angiosperms is shed as ( )
   (a) four celled pollen grain (b) three celled pollen grain (c) microspore mother cell (d) anther

2. Lower end of the embryonal axis in monocots is enclosed within ( )
   (a) scutellum (b) coleorhiza (c) plumule (d) radicle

3. What is the process of formation of zygote to an embryo ( )
   (a) Fertilization (b) Syngamy (c) Embryogenesis (d) Blastosis

4. When a diploid female plant is crossed with a tetraploid male, the ploidy of endosperm cells in the resulting seed is ( )
   (a) tetraploidy (b) pentaploidy (c) diploidy(d) triploidy.

5. Type of placentation in which ovary is syncarpousunilocular and ovules are on sutures is called ( )
   (a) marginal placentation (b) superficial placentation (c) apical placentation (d) parietal placentation

6. Ovule is straight with funiculus, embryo sac, chalaza and micropyle lying on one straight line. It is ( )
   (a) orthotropous (b) anatropous (c) campylotropous (d) amphitropous.

7. Which of the following pair have haploid structures? ( )
   a) nucellus and antipodal cells (b) antipodal cells and egg cell
   (c) antipodal cells and megaspore mother cell (d) nucellus and primary endosperm nucleus

8. Female gametophyte of angiosperms is represented by ( )
   (a) ovule (b) megaspore mother cell (c) embryo sac (d) nucellus

9. Generative cell was destroyed by laser but a normal pollen tube was still formed because ( )
   (a) vegetative cell is not damaged. (b) contents of killed generative cell stimulate pollen growth (c) laser beam stimulates growth of pollen tube (d) the region of emergence of pollen tube is not harmed.

10. Development of an organism from female gamete/egg without involving fertilization is ( )
    (a) adventitiveembryony (b) polyembryony (c) parthenocarpy (d) parthenogenesis

11. Flowers with both androecium and gynoecium are called (A)
    (a) Bisexual flowers (b) Anther (c)Stamens (d) Unisexual flowers

12. The transfer of pollen from the anther to stigma is called (A)
    (a). Pollination (b)Fertilization (c) Adoption (d) 4. Diffusion

13. The fusion of female reproductive nucleus with the male reproductive nucleus is known as (C)
(a) Adoption (b) Excretion (c) Fertilization (d) Regeneration

14. The two nuclei at the end of the pollen tube are called (A)
(a) Tube nucleus and a generative nucleus (b) Sperm and ovum
(c) Generative nucleus and stigma (d) Tube nucleus and sperm

15. Generative nucleus divides forming (A)
(a)1. 2 male nuclei (b) 2. 3 male nuclei (c)3. 2 female nuclei (d) 4. 3 female nuclei

16. Embryo sac is located inside the (B)
(a) Stigma (b) Ovule (c) Micropyle (d) Style

17. One nucleus of the pollen tube and secondary nucleus of the ovum grow into (B)
(a)Stigma (b) Endosperm (c) Anther (d)Stamen

18. The male reproductive parts of a flower, the stamens, are collectively known as (A)
(a)Androecium (b) Filament (c) Anther (d) Gynoecium

19. The other name for gynoecium is (A)
(a) Pistil (b) Stigma (c) Androecium (d) Style

20. Functional megaspore in a flowering plant develops into (C)
(a)Endosperm (b) Ovule (c) Embryo-sac (d) Embryo

II. Fill in the Blanks **10 X 1/2 = 05 Marks**

1. Beneath the epidermis _____ is present
2. The _____through which the pollen grains are discharged from the pollen sac is called_____
3. Tapetumis the innermost layer of the anther wall characterized by _____
4. The arrangement of microspores in a tetrad is _____
5. The term exine and intine were proposed by _____
6. Germ pore facilitate the emergence of pollen tube through it at the time of _____
7. According to Davis (1966), about _____ show *Polygonum*type of _____ development
8. In _____, the product of double fertilization soon disintegrates and endosperm development is completely suppressed
9. Depending upon mode of development three types of endosperm has been recognized: _____
10. Nuclear endosperm is commonly found in _____

11. Which of the following is similar to autogamy, but requires pollinators _____
12. What is the function of the filiform apparatus_____
13. A mass of nutritive material outside the embryo sac is called _____
14. Which of the following statements is correct _____
15. Which of the following fruit is produced by parthenocarpy _____
16. The process of formation of seeds without fertilization in flowering plants is known as _____
17. Functional megaspore in an angiosperm develops into _____
18. Rewards and attractants are required for _____
19. A dioecious flowering plant prevents _____
20. Parthenogenesis is _____

III. Short answer questions **5X2=10 Marks**

1. Arrangement of microspores/pollen grains

2. Discharge of male gametes from pollen tube

3. Parts of the ovule

4. Development of the Endosperm

5. Syngamy- fusion of gametes

IV. Assignment **1X 5 =5 Marks**