1. Orthotropus ovule belongs to :- **[Uttaranchal PMT 2004]**
(1) Capsella (2) Polygonum
(3) Ranunculus (4) All of these

2. In a flowering plant, megaspore develops into an embryo sac, which contains:- **[Uttaranchal PMT 2004]**
(1) 4 cell, one of which is an egg cell
(2) 6 cell, one of which is an egg cell
(3) 8 cell, one of which is an egg cell
(4) None of these

3. The adaptation of pollination found in **Calotropis** is:- **[Uttaranchal PMT 2004]**
(1) Dicliny (2) Herkogamy
(3) Heterostyly (4) Dichogamy

4. Apogamy is :- **[Uttaranchal PMT 2004]**
(1) Reproduction of virus
(2) Failure of fusion of gametes
(3) Development of bacteria
(4) All of the above

5. When vegetative cells of sporophyte form an embryo it is celled :- **[Uttaranchal PMT 2004]**
(1) Apospory
(2) Apogamy
(3) Apomixis
(4) Adventive embryony

6. When seed germinates, while the fruit is attached to parent plant, it is called :- **[Uttaranchal PMT 2004]**
(1) Apomixis
(2) Vivipary
(3) Parthenocarpy
(4) Parthenogenesis

7. Pollinia are present in family:- **[Uttaranchal PMT 2004]**
(1) Brassicaceae
(2) Cucurbitaceae
(3) Asclepiadaceae
(4) Malvaceae

8. Nuclear endosperm is present in :- **[Uttaranchal PMT 2004]**
(1) Banana (2) Coconut
(3) Phoenix (4) Mango

9. Development of embryo from a cell of embryo sac other then egg is an example of :-
(1) Apospory **[[Uttaranchal PMT 2006]**
(2) Apogamy
(3) Adventive embryony
(4) Parthenogenesis

10. Seed coat is derived from:- **[Jharkhand 2003]**
(1) Pericarp (2) Epicarp
(3) Integuments of ovule (4) Nucellus

11. What is pollen grain:- **[Jharkhand 2003]**
(1) Microspore mother cell
(2) Male gamete
(3) Male gametophyte
(4) Partially developed embryo

12. Entry of pollen tube through micropyle is :- **[Jharkhand 2004]**
(1) Porogamy (2) Mesogamy
(3) Psemigamy (4) Chalazogamy

13. Micropyle helps in:- **[Jharkhand 2004]**
(1) Germination of pollen grain
(2) Growth of pollen tube
(3) Coming out of pollen tube from pollen grain
(4) Allowing entry of pollen tube

14. Ovule with hilum lying close to micropyle is known as:- **[Jharkhand 2005]**
(1) Anatropous (2) Circinotropous
(3) Atropous (4) All of the above

15 Syngamy is the process in which:- **[Jharkhand 2005]**
(1) Male gamete fuses with female gamete
(2) Pollen tube enter into the ovule through chalaza
(3) Pollen tube enter into the ovule through micropyle
(4) Generative cell and tube cell fuse

16. In embryo sac, n 2n, 3n conditions are found respectively in **[Jharkhand 2006]**
(1) Egg, antipodal, endosperm
(2) Nucellus, endosperm, egg
(3) Antipodal, zygote, endosperm
(4) Endosperm, nucellus, eg

17. In angiosperms, endosperm is formedby:- **[UPCPMT 2001]**
(1) Division of fused polar nuclei
(2) Free nuclear division of megaspore
(3) Division of fused synergids and male gamete
(4) Division of fused polar nuclei and male gamete

18. Endosperm of angiospermic plant is:- **[UP CPMT 2002]**
(1) Triploid (2) Diploid
(3) Haploid (4) Tetraploid

19. Rarely among angiosperms the pollen grains influences the endosperm. This is called as:- **[UP CPMT 2004]**
(1) Metaxenia
(2)Nemec phenomenon
(3) Xenia (4) Mesogamy

20. Pollination in which pollen grains of one flower are transferred to the stigma of another flower of the same plant is called:- **[UP CPMT 2004]**
(1) Xenogamy (2) Autogamy
(3) Geitonogamy (4) Allogamy

21. Aleurone layer is part of:- **[UP CPMT 2005]**
(1) Endosperm (2) Embryo
(3) Tegmen (4) Testa

22. Function of embryonal suspensor in angiosperms is to:- **[UP CPMT 2005]**
(1) Serve as channel for H_2O
(2) Push embryo deeper into endosperm
(3) Release growth hormones
(4) Transfer nutrients from parent sporophyte to young embryo

23. Microsporophyll contains:- **[UP CPMT 2006]**
(1) Pollen (2) Pollen grain
(3) Nucellus (4) All of these

24. Mesogamy is:- **[UP CPMT 2007]**
(1) Fusion of male and female gametes
(2) Fusion of physiologically similar and morphologically different gametes
(3) Entry of pollen tube through integuments
(4) None of the above

25. Nucellus forms which of the following part of fruit:- **[UP CPMT 2007]**
(1) Seed coat (2) Perisperm
(3) Seed (4) Raphe

26. If root of a flowering pant has 24 chromosomes , then its gamete has how many chromosomes:- **[UP CPMT 2007]**
(1) 24 (2) 12
(3) 4 (4) 8

27. Raphe is:- **[UP CPMT 2007]**
(1) Part of flower
(2) Funicle attached to ovule
(3) Ridge formed by funiculus
(4) Part of nucell

28. Caruncle is formed by:- **[CG CPMT 2004]**
(1) Peduncle
(2) Cotyledons
(3) Integument
(4) None of the above

29. Perisperm is:- **[CG CPMT 2004]**
(1) Outer part of endosperm
(2) Destroyed synergids
(3) Destroyed secondary nucleus
(4) Remains of nucellus

30. In Pea, the ovule is:- **[CG CPMT 2004]**
(1) Hemianatropous
(2) Amphitropous
(3) Anatropous
(4) Campylotropous

31. A bisexual flower which never opens in life is known as:- **[CG CPMT 2005]**
(1) Homogamous
(2) Heterogamous
(3) Anatropous
(4) Cleistogamous

32. If testa is removed from water soaked gram seed, the remaining structure is:- **[CG CPMT 2005]**
(1) Full mature embryo
(2) Cotyledons with endosperm and pericarp
(3) Cotyledons filled with starch
(4) None of the above

33. Double fertilization means fusion of :- **[CG CPMT 2005]**
(1) One of the polar nuclei fused with the sgnergids and one male gamete with egg cell
(2) Fusion of one of the male gametes with polar nuclei and other with antipodal cells
(3) Fusion of one of the male gametes with second ary nucleus and other male gamete with egg cell
(4) Fusion of one antipodal cell with egg celland synergid cell with other antipodal cell

34. Double fertilization was discovered by Nawaschin in: - **[CG CPMT 2005]**
(1) Lilium and Fritillaria
(2) Mango and Sugarcane
(3) Papaya and Pea
(4) Brassica and candytuft

35. Embryo sac of an Angiospermic plant is :- **[Bihar 2001]**
(1) Male gametophyte
(2) Female gametophyte
(3) Male sporophyte
(4) Either female sporophyte

36. Pollination by wind is called:- **[Bihar 2004]**
(1) Anemophily (2) Hydrophily
(3) Zoophily (4) Entomophily

37. Development of embryo from egg without fertilization is called:- **[Bihar 2004]**
(1) Parthenogenesis
(2) Parthenocarpy
(3) Apospory (4) Apomixis

38. Pollen tube enters into ovule through micropyle is called:- **[Bihar 2004]**
(1) Porogamy (2) Chalazogamy
(3) Mesogamy (4) None of these

39. Which of the following is not true for double fertilization:- **[Bihar 2005]**
(1) Discovered (2) Diploid
(3) Male gamete and secondary nucleus fused to form endosperm nucleus
(4) Endosperm provides nutrition to embryo

40. In the anther wall :- **[Bihar 2006]**
(1) Tapeum lies between endothecium and middle layers
(2) Tapetum lies just inner to endothecium
(3) Middle layer lies between endothecium and tapetum
(4) Endothecium lies just inner to middle layer

41. Aleurone grains are rich in :- **[Bihar 2006]**
(1) Fat (2) Protein
(3) Carbhydrates (4) Auxins

42. Meiosis can be observed in :- **[Bihar 2006]**
(1) Tapetal (2) Megaspores
(3) Micropores (4) Spore mother cells

43. Mark the correct sequence:- **[Bihar 2006]**
(1) Anthesis→Meiosis → Pollination → Syngamy
(2)Pollination→Meiosis → anthesis → Syngamy
(3)Anthesis → Pollination →Meiosis→ Syngamy
(4)Meiosis→Anthesis→ Pollination → Syngamy

44. Through which route the pollen tube enters the ovule :- **[MP PMT 2001]**
(1) Chalaza (2) Micropyle
(3) Funiculus (4) Any of these

45. The point of attachment of ovule to the funicle is known as :- **[MP PMT 2001]**
(1) Raphe (2) Chalaza
(3) Micropyle (4) Hilum

46. In Angiosperms the endosperm is :- **[MP PMT 2001]**
(1) Diploid (2) Triploid
(3) Haploid (4) Polyploid

47. The endosperm in angiosperms develops from **[MP PMT 2002]**
(1) Micropylar polar nucleus
(2) Chalazal polar nucleus
(3) Secondary nucleus
(4) Zygote

48. The formation of embryo without fusion of gametes is termed as :- **[MP PMT 2003]**
(1) Apospory (2) Isogamy
(3) Apogamy (4) Syngamy

49. In angiosperms embryosac is developed from :- **[MP PMT 2003]**
(1) Megaspore mother cell
(2) Secondary nucleus
(3) Endothecium
(4) Microspore mother cell

50. Double fertilization was discovered by:- **[MP PMT 2003]**
(1) S.G. Nawaschin (2) Strasb
(3) Robert Brown (4) Purkinje

51. The part of Gynoecium which receives the pollen is called:- **[MP PMT 2004]**
(1) Stigma (2) Style
(3) Ovule (4) Ovary

52. Bisexual flowers which never open, demonstrated by **[MP PMT 2004]**
(1) Autogamy (2) Allogamy
(3) Cleistogamy (4) None of these

53. Double fertilization is characteristic only in :- **[MP PMT 2004]**
(1) Bryophytes (2) Diploid
(3) Gymnosperms (4) Pteridophytes

54. When pollen tube enters by integument then the process is known as:- **[MP PMT 2004]**
(1) Mesogamy (2) Porogamy
(3) Chalazogamy (4) Pseudogamy

55. In which of the following plant group, seeded plants are placed:- **[MP PMT 2004]**
(1) Algae (2) Bryophyta
(3) Angiosperms (4) Fungi

56. The main function of tepetum is :-
(1) Division (2) Support
(3) Nutrition (4) None

57. The endosperm in angiosperm is :- **[MP PMT 2006]**
(1) Triploid (2) Haploid
(3) Diploid (4) Polyploid

58. Poly gonum type of embryosac is :- **[MP PMT 2006]**
(1) 7-celled, 8-nucleate
(2) 8-celled. 7- nucleate
(3) 9-nucleate3
(4) 16-nucleate

59. The plant which raised from pollen grain is called **[MP PMT 2006]**
(1) Haploid pl
(2) Diploid plant
(3) Polyploid
(4) Heterosis

60. Male gamete in Angiosperm is produced by:- **[MP PMT 2007]**
(1) Generative cell
(2) Microspore cell
(3) Vegetative cell
(4) Tube cell

STATE PMT EXAMS EXERCISE — ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	**2**	**4**	**2**	**2**	**4**	**2**	**3**	**2**	**2**	**3**	**3**	**1**	**4**	**1**	**1**
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	**3**	**4**	**1**	**3**	**3**	**1**	**2**	**2**	**3**	**2**	**2**	**3**	**3**	**4**	**3**
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	**4**	**1**	**3**	**1**	**2**	**1**	**1**	**1**	**3**	**3**	**2**	**4**	**1**	**4**	**4**
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	58	60
Ans.	**2**	**3**	**3**	**1**	**1**	**1**	**3**	**2**	**1**	**3**	**3**	**1**	**1**	**1**	**1**