**Karan Arora**  **R.L. Institute M: 9416974837**

**Max Time : 1 hr** **Class = 12th Biology Test**  **Max Marks : 30**

**SEXUAL REPRODUCTION IN FLOWERING PLANTS**

1. Multiple choice questions : [ 1 X 5 = 5]
2. In angiosperms, a functional megaspore is developed into

|  |  |  |  |
| --- | --- | --- | --- |
| a) Embryo sac | b) Endosperm | c) Ovule | d) Pollen grain |

1. In the embryos of a typical dicot and a grass, true homologous structures are :

|  |  |
| --- | --- |
| a) coleorhiza and coleoptile | b) coleoptile and scutellum |
| c) cotyledon and scutellum | d) hypocotyl and radicle |

1. A characteristic of tapetum is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Multilayered | b) Multinucleated | c) Stores food | d) Nourish megaspore |

1. Function of germ pore is

|  |  |
| --- | --- |
| a) emergence of radicle | b) absorption |
| c) growth of pollen tube | d) release of male gametes |

1. A bilobed, dithecous anther has 100 microspore mother cell per microsporangium. How many male gametophytes this anther can produced?

|  |  |  |  |
| --- | --- | --- | --- |
| a) 100 | b) 400 | c) 1600 | d) 3200 |

1. Give an example of a plant which cause of pollen allergy? [ 1 ]
2. Papaver and Michelia both have multicarpellary ovaries. How do they differ from each other. [ 1 ]
3. Define apomixes with example? [ 1 ]
4. Differentiate Between monosporic and endosporic development? [ 1 ]
5. An anther with malfunctioning tapetum often fails to produce viable male gametophytes. Give reason. [ 1 ]
6. Why does the zygote begins to divide only after the division of Endosperm cell ? [ 2 ]
7. Write the characteristic feature of wind pollinated flowers. [ 2 ]
8. Explain any 3 devices by which autogamy is prevented in flowering plants. [ 3 ]
9. Draw a neat diagram and explain 7 celled, 8 nuclei development of female gametophyte. [ 3 ]
10. Explain the phenomenon of double fertilization. [ 5 ]
11. If octaploid (8 N) female plant is crossed with hexaploid (6 N) male plant then what would be the ploidy of the following : [ 5 ]

1. Sporogeneous cell 2. Zygote 3. Primary Endosperm cell

4. Synergids 5. Central cell