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# (Chapters (Sexual reproduction in flowering plants, Human reproduction, Reproductive health)

**Subject: Biology Class: XII**

# TIME: 1: Hr Max. Marks: 20

***Note****:* Question no one to four is of 01 mark each, question no five and six is of 02 marks each, question number three is of 03 marks, question no five is a case study based and is of 04 marks and question number six is of 5 marks.

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| **SN** | **Question** | **Marks** |
| 1 | The anther is the male reproductive part of flowering plants. Which statement is correct about another- i- Usually, it is bilobed   1. Bilobed anther is tetragonal 2. Each bilobed anther contains four microsporangia iv- Microsporangia develops into pollen sacs. 3. Only i and ii are correct 4. Only i and iii are correct 5. Only i,ii, and iv are correct 6. All are correct | 1 |
| 2 | Assertion: Spermatogenesis is the transformation of spermatids into spermatozoa. Reason: one spermatid develops into one spermatozoan during spermiogenesis.   1. Both assertion and reason are correct and the reason is the correct explanation of assertion. 2. Both assertion and reason are correct and reason is not a correct explanation of assertion. 3. Assertion is true but the reason is false 4. Assertion is false but the reason is true. | 1 |
| 3 | In an ovule of an angiospermic plant if chromosome no of the stem cell is 14 what will be the number of chromosomes in the nucellus and egg respectively-  a- 14 and 14 b- 7 and 14 c- 14 and 7 d- 7 and 7 | 1 |
| 4 | In flowering plants, the single embryosac is formed because of- a- Reduction division in megaspore   1. c- Equational division in megaspore 2. Reduction division in microspore 3. d- Equational division in microspore | 1 |
| 5 | Give reason-  i- In endospermic plants endosperm formation started before the division of fertilized egg. ii- Micropyle remains as a pore in the seed. | 2 |
| 6 | Mention two of pollination encourages inbreeding depression and why? | 2 |
| 7 | 1. Identify x and y 2. Identify the structure where ovulation takes place. iii- Write the function of z | 3 |
| 8 | **Case study-based questions (questions no 8- 11)**  IVF is a process in which viable eggs are removed from the ovary of a female and fused with viable sperm in artificial laboratory conditions outside the uterus. The embryos are grown in the laboratory for several days and then either placed in a woman's uterus. It is done to help a woman become pregnant. It is used to treat many causes of infertility, including Advanced age of the woman | 4 |

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|  | (advanced maternal age) Damaged or blocked fallopian tubes (can be caused by pelvic inflammatory disease or prior reproductive surgery)   1. What is the full form of IVF?    1. Invitro fertilization c- Invivo fertilization    2. Invitro formation of fetus d- Invivo formation of the fetus 2. Identify the process which belongs to IVF- 3. Amniocentesis c- Embryo transfer 4. Tubectomy d- All of these 5. In ZIFT at what stage zygote is transferred to the fallopian tube-    1. 2 celled stage c- 4 celled stage    2. 6 celled stage d- 8 celled stage 6. identify the correct pair of techniques that belong to ART 7. IVF and ET c- ET and amniocentesis 8. IVF and Cu d- ET and Vasectomy |  |
| 9 | 1. Draw a labeled sectional view of the human female ovary. 2. Explain the role of LH hormone in the menstrual cycle. | 5 |