

# DWARKA INTERNATIONAL SCHOOL

## HOLIDAY HOMEWORK (2022-23)

### BIOLOGY

#### A. WRITE FOLLOWING PRACTICALS IN PRACTICAL FILE

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. T.S. of blastula through permanent slides (Mammalian).
5. Controlled pollination - emasculation, tagging and bagging.

#### B. PREPARE AN INVESTIGATORY PROJECT ON TOPIC RELEVANT TO 12<sup>TH</sup> BIOLOGY SYLLABUS (AS DISCUSSED IN CLASS)

#### C. SOLVE FOLLOWING QUESTIONS IN BIOLOGY NOTEBOOK

1. Define: a) Scrotum; b) Menarche, c) Foetal ejection reflex, d) spermiation, e) Colostrum, f) Blastocyst.
2. Explain hormonal regulation of spermatogenesis in human males.
3. Draw labeled diagram of cross section on mammalian ovary showing developing follicle.
4. Differentiate between gametogenesis in human male and female on the basis of: **i)** time of initiation of process, **ii)** gametes formed at the end of the process, **iii)** arrest period, **iv)** morphological changes **v)** formation of polar bodies and **vi)** status at the time of fertilization.
5. Describe ovarian & Uterine changes in 1<sup>st</sup> – 5<sup>th</sup> day and 6<sup>th</sup> – 13<sup>th</sup> days menstrual cycle.
6. Define: a) perisperm, b) Microspore tetrad, c) Pollen Bank, d) Monosporic development, e) Colerhiza f) f) Hydrophily
7. Write the functions of layers of microsporangium.
8. What is inbreeding depression? How do plants overcome inbreeding depression?
9. Explain, how true, false and parthenocarpic fruits are different from each other with one example of each.
10. Geitonogamy is functionally a cross pollination but genetically similar to autogamy, Explain.