

## Biology - 12th Class Biology Chapter 18 Short Questions Preparation

Q1. What is corpus luteum? Give its function.

**Ans 1:** The follicle cells after release of the egg are modified to form a special structure called corpus luteum. It produces progesterone.

Q2. Differentiate between isomorphic and heteromorphic generation.

**Ans 1: Isomorphic:** If gametophyte and sporophyte generation are vegetatively and morphologically similar then they are called isomorphic generation.

**Ans 2: Heteromorphic:** If gametophyte and sporophyte generations are vegetatively and morphologically dissimilar then they are called heteromorphic generations.

Q3. What is menopause? At which age it starts.

**Ans 1:** The end or complete stop of menstrual cycle is called menopause. It starts at the age of 45 to 50 years.

Q4. Differentiate between tissue culture and cloning.

**Ans 1: Tissue Culture:** It is the growth of a tissue or plant in an artificial growth culture medium under aseptic conditions.

**Ans 2: Cloning:** It is asexual reproduction in which genetically identical organisms are produced from a single species.

Q5. Define placenta. Give its function.

**Ans 1:** Placenta acts as a bridge between mother body and foetus. Once the placenta is established it starts secreting progesterone hormone which maintains pregnancy. Placenta also plays a role in transport of nutrients and oxygen to foetus and brings back waste from the foetus to mother body.

Q6. What is the difference between oogenesis and spermatogenesis in humans?

**Ans 1: Oogenesis:** In oogenesis, primary oocytes divide meiotically into secondary oocytes and first polar body. Second meiotic division in the oocytes proceeds as far as metaphase but is not complete until the oocyte is fertilized by the sperm.

**Ans 2: Spermatogenesis:** During spermatogenesis primary spermatocytes undergo meiotic division to form four secondary spermatocytes and spermatids which then differentiate into four mature sperm.

Q7. What is Follicle atresia?

**Ans 1:** FSH stimulates the formation of several follicles. Only one of these follicles continues to grow with its primary oocytes while rest breakdown by a degenerative process called follicle atresia.

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Q8. What is seed dormancy?

**Ans 1:** It is special condition of rest, which enables an embryo to survive the long period of unfavorable environmental conditions such as water shortage or low temperature.

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Q9. What are phytochromes?

**Ans 1:** Phytochromes are blue light sensitive proteins found in plants. They exist in two form i.e, P<sub>660</sub> and P<sub>730</sub>. They play an important role in photoperiodism.

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Q10. Distinguish between vernalization and seed dormancy.

**Ans 1: Vernalization:** vernalization is the chilling treatment given to seed before sowing is called vernalization.

**Ans 2: Dormancy:** Dormancy is special condition of rest which enables an embryo to survive the unfavorable environmental conditions.

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