# Biology - 12th Class Biology Chapter 15 Short Questions Preparation

Q1. Described the structure of a flame cell.

**Ans 1:** It is a complete eukaryotic cell.It has a unucles, other cell organelles and a cavity where the waste products are collected.Each flame cell has a tuft of cilia, whose beating propel interstitial fluid into the tubular system

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Q2. Differentiate between hydrophytes and mesophytes.

**Ans 1:** Hydrophytes: Hydrophytes are the plant which grow in aquatic environment (abundant water),they have large leave surface area and stomata are present on the upper side of leaves, they have high rate of transpiration. E.g., Water lilli, Wolfia, Pistia etc.

**Ans 2:** Mesophytes: These are the plants which grow on land where moderate water is available: they open their stomata during flooding and close stomata during drought.For Example: rose and mango.

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Q3. Write a short note on kidney transplantation.

**Ans 1:** Dialysis is used temporerily.In high degree renal failure also called uremia or end stage renal disease.The dialysis is replaced by surgical transplantation of kidney of a matching donor kidney is the only option left as the permanent treatment. Kidney Should be of nearest to avoid tissue rejection.

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Q4. Define excretophore./what are excretophores %why?

**Ans 1:** Leaves are called excretophore because they collect nitrogenous waste from different plant parts and they store temporarily, at autumn season plants shed their leaves and wastes are removed from plant body.

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Q5. Write structural adaptation for regulation of heat exchange between animals and environment.

**Ans 1:** Structural adaptation in the animals for exchange of heat are sub-dermal fatty layer insulation called pelage, the presence of sweat glands and lungs modified fro painting.

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Q6. What is hypertonic environment and what changes occur in a cell in such environment?

**Ans 1:** The more concentrated external environment is called hypertonic environment. The hypertonic environment makes the cell solution concentrated and cell shrinks due loss of water.

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Q7. Define dialysis.Give its types.

**Ans 1:** When the kidneys of a patient are failed then nitrogenous wastes are removed by filtering blood through dialysis.Dialyzing machine is called artificial kidney machine.

It has two types:

1. Peritoneal dialysis
2. Hemodialysis

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Q8. Write two types of synthesis functions of liver and effects on homeostasis.

**Ans 1:** Synthesis function of liver include.

1. Synthesis of urea, ammonia and uric acid. It assists kidney for the removal of wastes.
2. Synthesis of plasma proteins like proteins like prothrombin and fibrinogen. it maintains osmotic balance of blood and help in blood clotting.

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Q9. Differentiate between hypotonic and hypertonic solution.

**Ans 1:** Hypotonic Solution: Dilutes solution compared to the cell concentration is called hypotonic solution.

**Ans 2:** Hypertonic Solution: The more concentrated external environment as compared to cell is called hypertonic solution.

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Q10. What is flame cell Why it is called so?

**Ans 1:** Flame cell is the part of excretory system of planaria.It is called flame cell because it has tuft of cilia, which looks like flickering flame of candle.

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