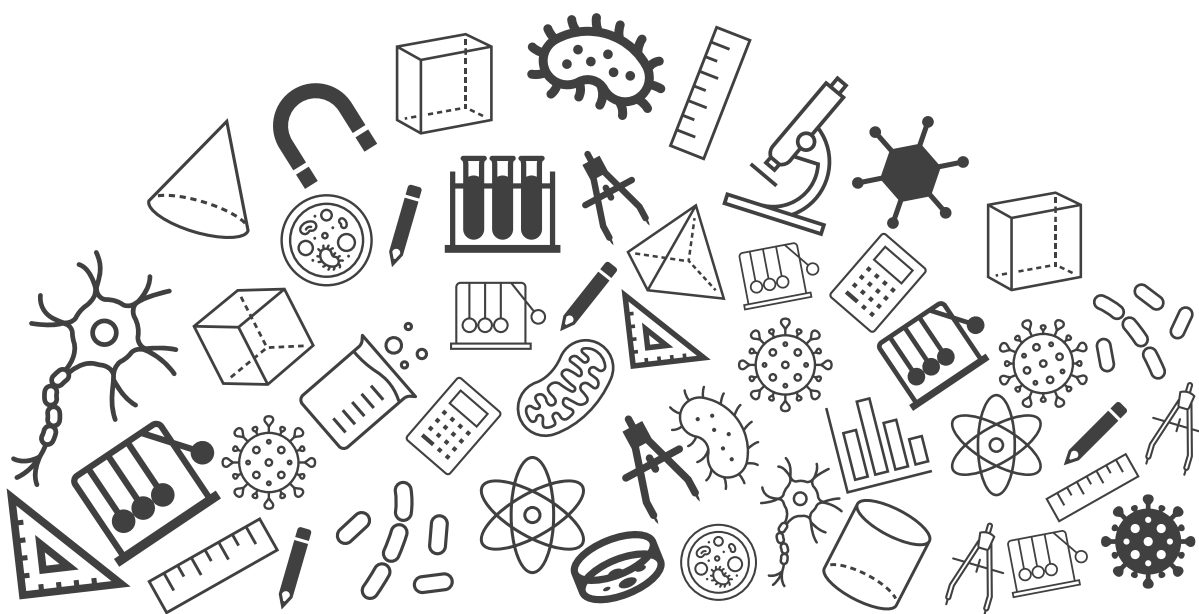




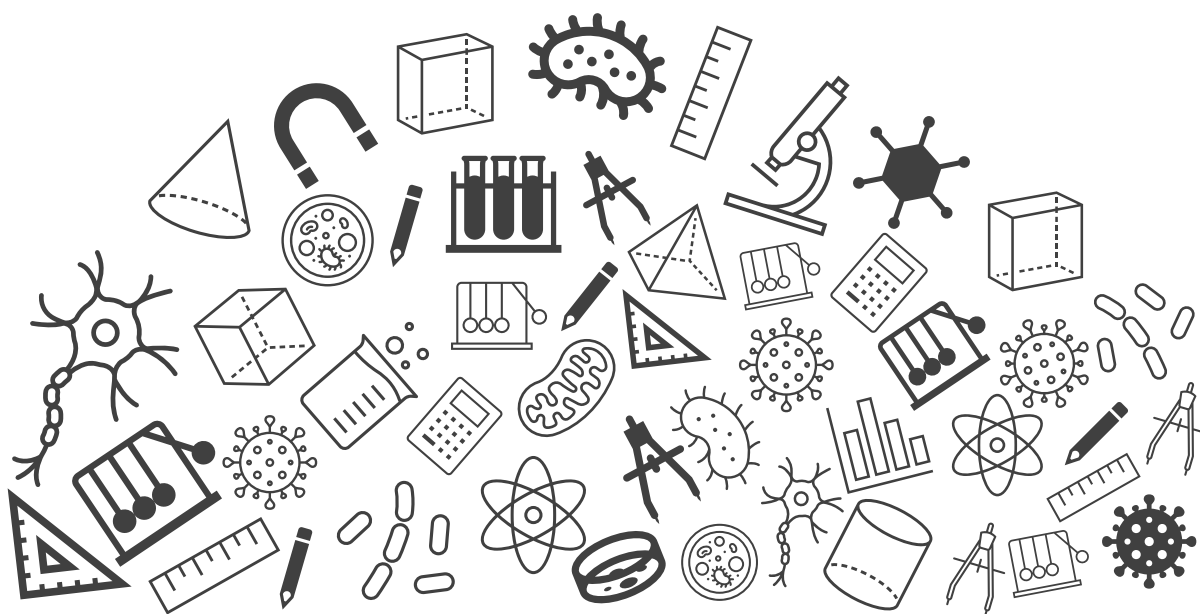
Grade 07 : Science

Exam Important Questions





Transportation in Animals and Plants



Transportation in Animals and Plants

Topic : Exam Important Question

1. Why is blood needed by all the parts of a body? [3 marks]

Blood is a significant part of transport system in our body, and we need blood for the following reasons:

- It transports substances like digested food from the small intestine to the other parts of the body. (1 mark)
- It carries oxygen from the lungs to the cells of the body. (1 mark)
- It also helps in removal of wastes from the body. (1 mark)

2. State whether the following statements are true or false.

Statement 1: RBCs fight against germs that enter our body.

Statement 2: WBCs help in transportation of oxygen.

[2 marks]

- ☒ A. Statement 1: True; Statement 2: False
- ☒ B. Statement 1: False; Statement 2: True
- ☒ C. Statement 1: True; Statement 2: True
- ☒ D. Statement 1: False; Statement 2: False

Solution:

The correct answer is option D. (2 marks)

- Blood is composed of two important components, liquid component called plasma and cellular component.
- Cellular component comprises of RBCs, WBCs and platelets.
- RBCs contain a red pigment called haemoglobin which helps in transportation of oxygen and also gives blood its red colour.
- WBCs form the defense system of our body and help in fighting germs that enter body.
- Platelets help in blood clotting during injuries.

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3. What are the three components of the circulatory system? Briefly describe each of them. [5 marks]

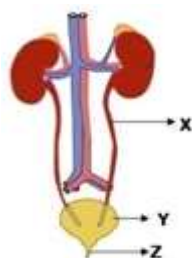
- The circulatory system comprises of blood, blood vessels and the heart. (1 mark)
- Blood is the fluid which helps in transportation of various substances to different parts of the body. (1 mark)
- Blood has two important components - i) fluid component (plasma), ii) cellular component (RBCs, WBCs, Platelets). (1 mark)
- Blood vessels are the tubular structures inside which the blood flows and reaches different parts of the body. (1 mark)
- Heart is a muscular organ which pumps the blood to different parts of the body. (1 mark)

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4. Some parts of the human excretory system are labeled in the image given below.

Identify them with the alternatives given in the options.

[3 marks]



- ☒ A. X- Urethra, Y- Urinary bladder, Z- ureter
- ☒ B. X- Urethra, Y- Urinary bladder , Z- urinary bladder
- ☒ C. X- Ureter, Y- Urinary bladder, Z- Urethra
- ☒ D. X- Ureter, Y- Urinary bladder, Z- Urethra

Solution:

The correct answer is option C. (3 marks)

All 3 parts labeled are important parts of the human excretory system.

- X- Ureter - It carries urine from the kidneys to the urinary bladder.
- Y- Urinary Bladder- It stores urine temporarily.
- Z- Urethra- It is the passage through which urine is expelled from the body.

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5. Write about the location, structure, and function of the kidneys. [3 marks]
- Kidneys are the bean-shaped organs that are located in the upper abdominal area. (1 mark)
 - They sit opposite each other on both the left and right side of the body; the right kidney, however, sits a little lower than the left to accommodate the size of the liver. (1 mark)
 - They filter wastes, including urea, salts, and excess water, which are flushed out of the body as urine. (1 mark)
6. What happens incase of kidney failure?
- Kidneys are the most important organs of our excretory system, as they carry out the filtration process to get rid of the waste material that is produced in our body due to various cellular activities.
 - In the case of kidney failure, waste materials are not filtered and are sent back to our body.
 - As these waste materials are toxic and harmful the blood becomes darker and toxic because of the build-up of different harmful waste substances.
 - This ultimately starts affecting different organs of our body.
7. Which of the following is/are the functions of root hair?
- ☒ A. Increase the surface area of the root for absorption of water
 - ☐ B. They help in the transport of food
 - ☐ C. They carry out photosynthesis under the soil.
 - ☐ D. They store the extra food that is produced by the leaves.

Plants grow root hairs on the tips of their roots. This helps to increase surface area of absorption of water and nutrients from the soil.

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8. How water and minerals are transported in plants? [2 marks]

- The vascular tissue xylem transports water and minerals in plants. (0.5 marks)
- Transpiration creates a suction pressure, as a result of which water is forced into the xylem cells of the roots. (0.5 marks)
- Then there is a steady movement of water from the root xylem to all the plant parts. (0.5 marks)
- The flow of water and minerals through the xylem is upward and unidirectional. (0.5 marks)

9. State whether the following statements are true or false.

Statement 1: Water reaches great heights in the trees because of suction pull caused by transpiration.

Statement 2: Water absorption through roots can be increased by keeping the plants under the fan.

- ☐ A. Statement 1: True; Statement 2: False
- ☒ B. Statement 1: True; Statement 2: True
- ☐ C. Statement 1: False; Statement 2: True
- ☐ D. Statement 1: False; Statement 2: False

10. Write a short note on excretion in fishes. [2 marks]

- In aquatic animals like fishes, the excretory product produced is ammonia. (1 mark)
- Ammonia easily dissolves in water and is excreted from the body through gills. (1 mark)