

GENERAL SCIENCE, Paper - II

(English version)

Parts A and B

Time : 2 hours 45 min.]

[Maximum Marks : 40

Instructions :

1. In the time duration of 2 hours 45 minutes, 15 minutes of time is allotted to read and understand the Question paper.
2. Answer the Questions under **Part-A** on separate answer book.
3. Write the answers to the Questions under **Part-B** on the Question paper itself and attach it to the answer book of **Part-A**.

Part - A

Time : 2 hours

Marks : 35

Instructions :

1. **Part - A** comprises of **three** sections I, II and III.
2. **All** the questions are **compulsory**.
3. There is no overall choice. However, there is internal choice to the Questions under section-III.

SECTION - I

7×1=7

NOTE : 1. Answer **all** the following questions.

2. Each question carries **1** mark.

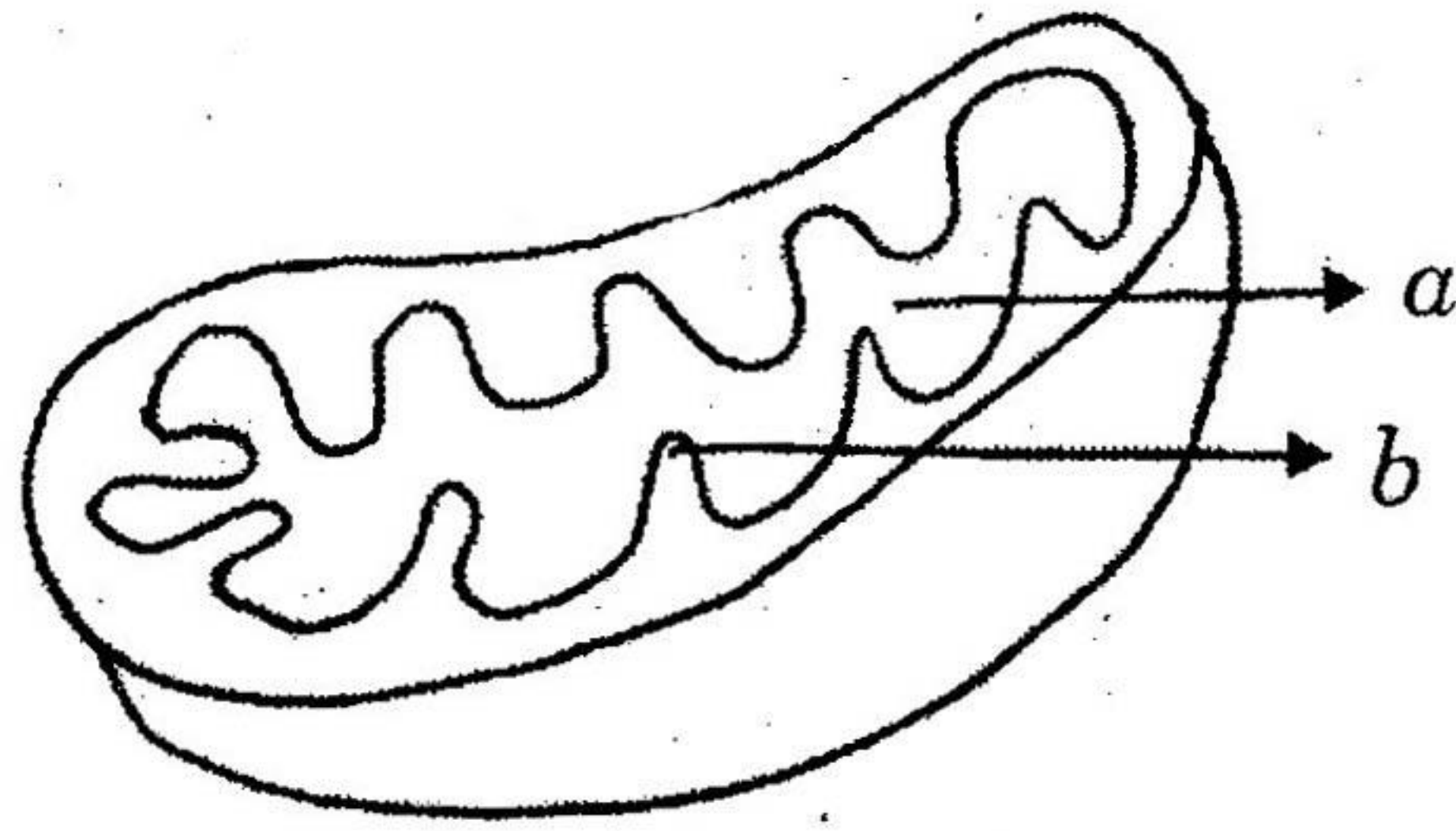
3. Write answers in 1-2 sentences for each question.

1 Which chromosomes determine the sex in human beings ?

2. Which part of small intestine absorbs digested food ?

3. Why do we use KOH solution in Mohl's half-leaf experiment ?

4. Label *a* and *b* in the given diagram.



5. Name the chemical which is used to test the action of saliva on ~~flour~~ (ata).
6. Write two healthy habits which you practice to protect your kidneys from diseases.
7. Prepare two slogans on protecting non-renewable resources.

SECTION - II

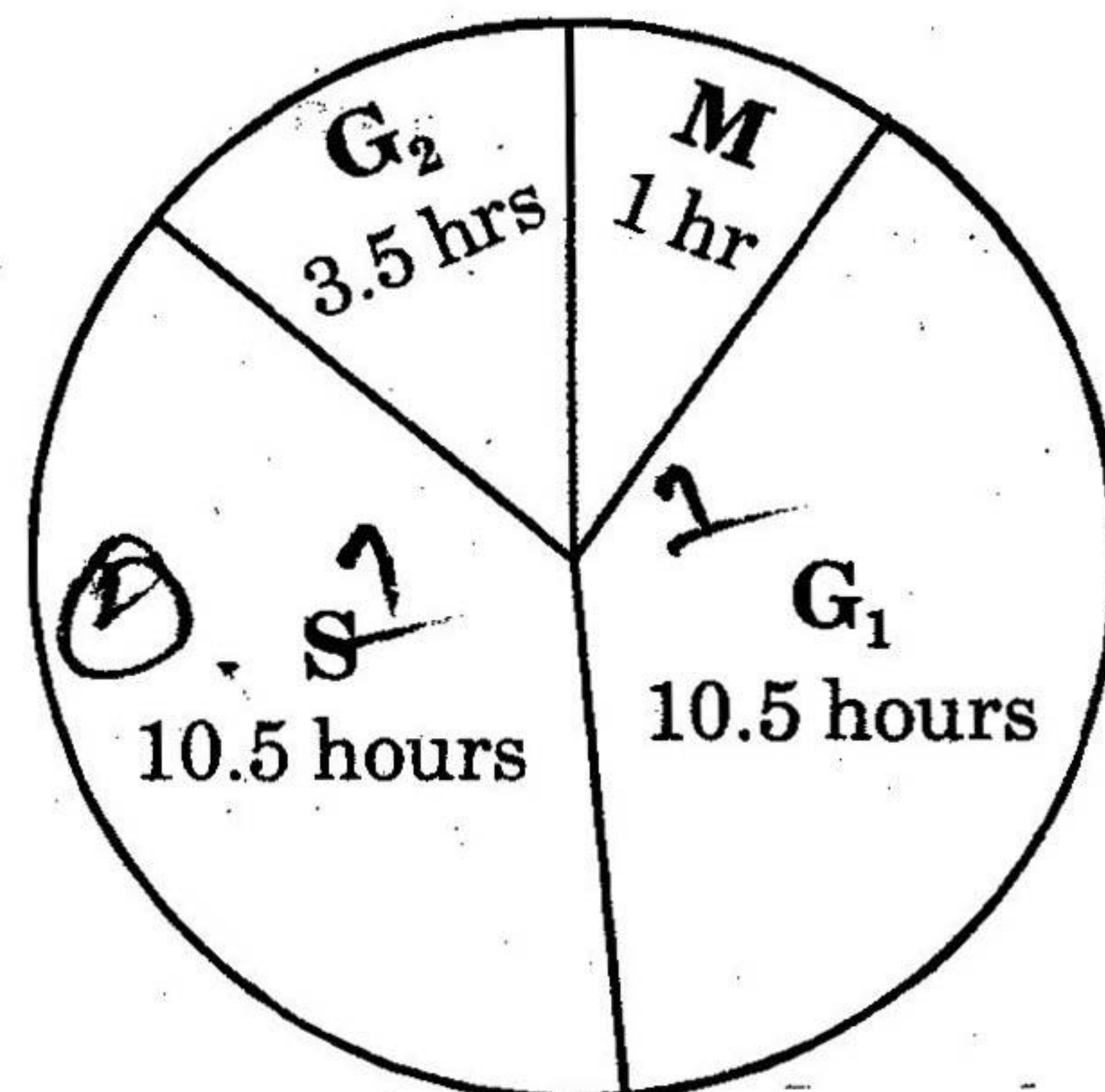
6×2=12

- NOTE :**
1. Answer **all** the questions.
 2. Each question carries **TWO** marks.
 3. Answer the questions in 4-5 sentences.

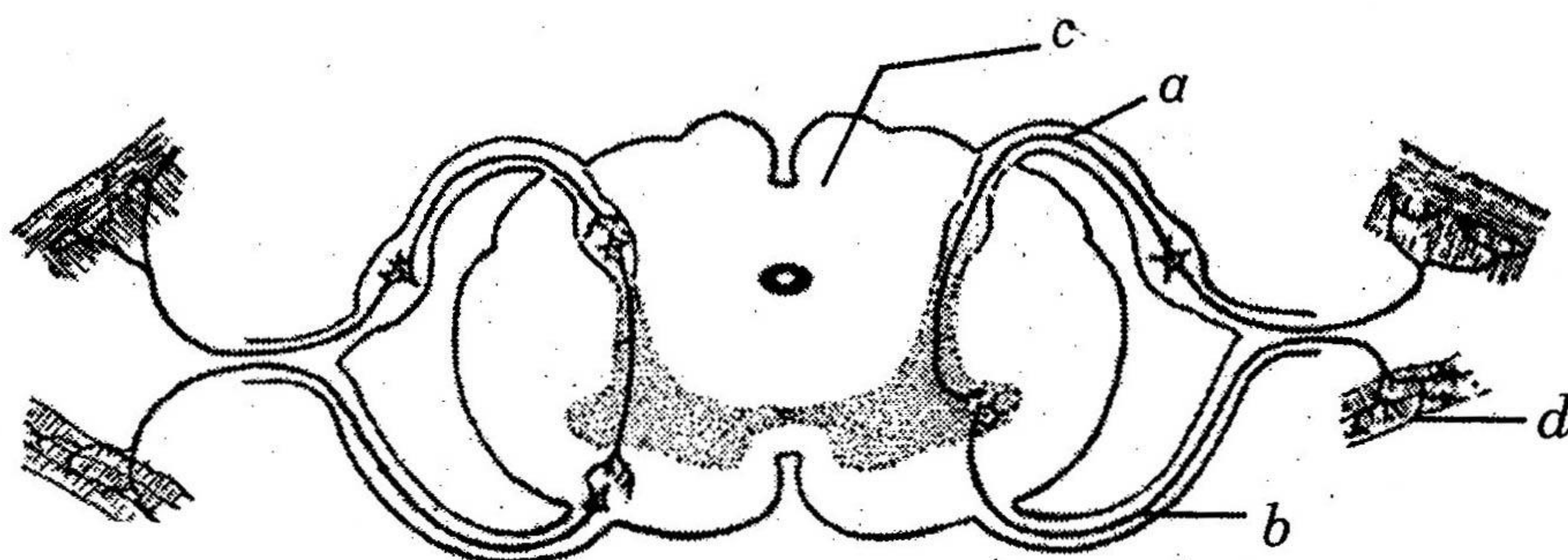
8. Explain in brief about the alternate methods to be followed to prevent the harmful effects of over usage of pesticides.
9. What happens if there are no valves in veins ?
10. What questions you will ask a neurologist on function of brain ?

11. Observe the diagram and answer the following questions.

- (i) Which phases take same time duration ?
- (ii) In which phase, DNA synthesis takes place ?



12. Label *a*, *b*, *c*, *d* in the diagram given below and write their functions.



13. Name the secondary metabolites which are useful in leather and rubber industry. From which plants we obtain them?

SECTION - III

4×4=16

NOTE : 1. Answer **all** the questions.

2. Each question carries 4 marks.

3. There is internal choice for each question.

Only one option from each question is to be attempted.

4. Answer each question in 8-10 sentences.

14. Write about the accessory excretory organs and their excretory substances in human beings.

OR

What is Phenotype and Genotype? Explain them with the help of Mendal's Monohybrid cross.

15. Write the mechanism of light dependent reactions in Photosynthesis

OR

Which system of our body is called second brain? Why?

16. Write the procedure which you follow to observe bread-mould Sporangium in your laboratory. What precautions do you take during the activity?

OR

Write the materials required and the procedure to prove that light is essential for Photosynthesis.

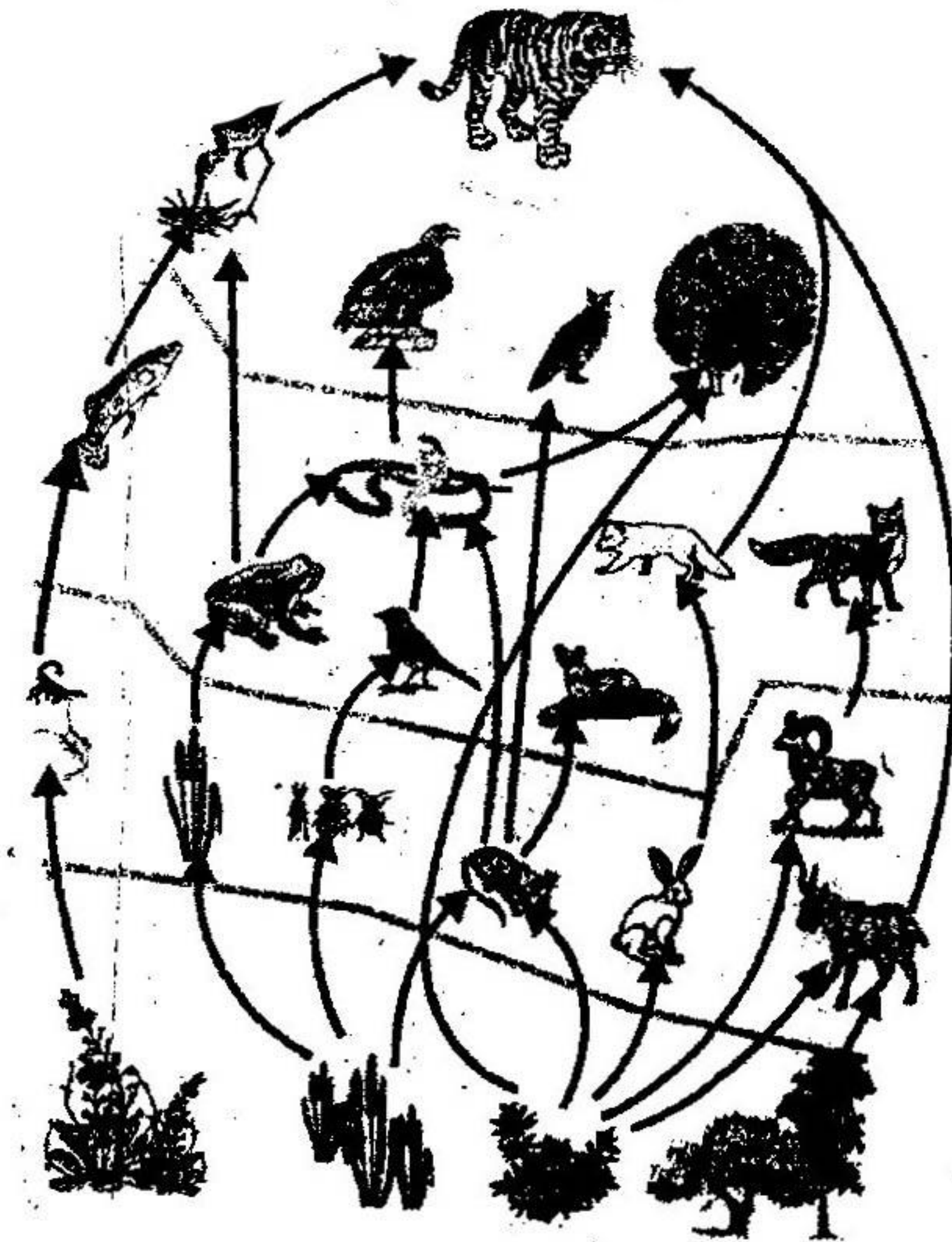
17/ Read the table and answer the following questions.

S.No.	Name of the Phylum	Type of transport system
1	Cnidarians	Gastro vascular cavity
2.	Platyhelminthes	Digestive system
3.	Nemathelminthes	Pseudo-coelom
4.	Annelida	Blood vessels
5.	Arthropoda	Open circulatory system

- (i) In which phylum, blood vessels are first formed ?
(ii) In which phylum, organisms have haemoglobin in their blood ?
(iii) In which phylum, digestive system helps in transportation ?
(iv) Why do Arthropods have open circulatory system ?

OR

Observe the following diagram and answer the following questions.



- (i) Name the primary producers in the given food web.
(ii) Prepare any one food-chain from the diagram.
(iii) What are the tertiary consumers ?
(iv) Write names of any two herbivores.