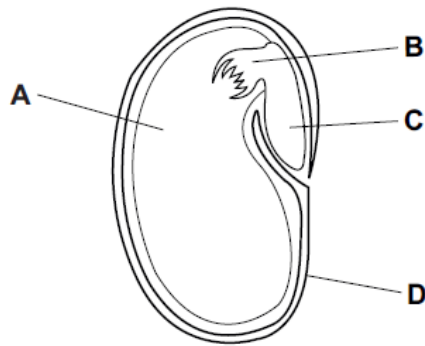


**Development of organisms and continuity of life – 2022 June O Level 5090****1. June/2022/Paper\_11/No.33**

The diagram shows a section through a bean seed.

Which labelled part is the testa?

**2. June/2022/Paper\_11/No.34**

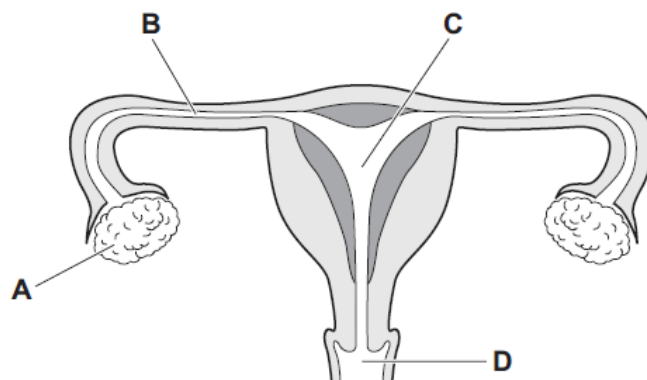
Which row shows the two hormones that are necessary for ovulation to occur?

|          | hormones needed for ovulation to occur |     |           |              |
|----------|--|-----|-----------|--------------|
|          | FSH                                    | LH  | oestrogen | progesterone |
| <b>A</b> | no                                     | no  | yes       | yes          |
| <b>B</b> | no                                     | yes | no        | yes          |
| <b>C</b> | yes                                    | no  | no        | yes          |
| <b>D</b> | yes                                    | yes | no        | no           |

**3. June/2022/Paper\_11/No.35**

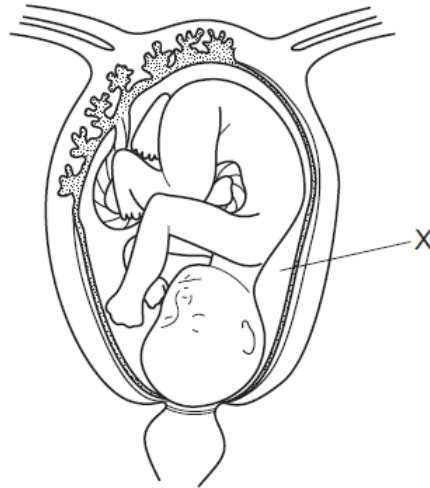
The diagram shows the female reproductive system.

Where does fertilisation take place?



4. **June/2022/Paper\_11/No.36**

The diagram shows a developing fetus in the uterus.

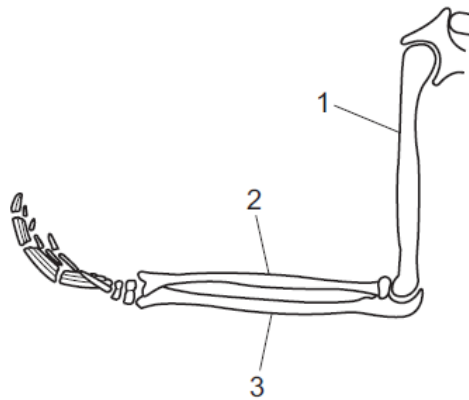


What is the liquid at X called?

- A amniotic fluid
- B blood
- C urine
- D water

5. **June/2022/Paper\_12/No.26**

The diagram shows the bones of the human forelimb.



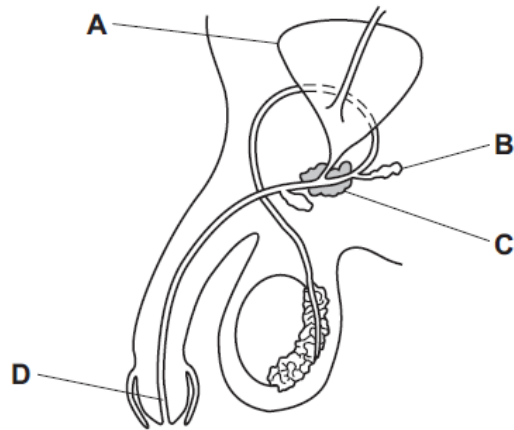
Which row names the three bones?

|          | 1       | 2      | 3      |
|----------|---------|--------|--------|
| <b>A</b> | humerus | ulna   | radius |
| <b>B</b> | humerus | radius | ulna   |
| <b>C</b> | scapula | radius | ulna   |
| <b>D</b> | scapula | ulna   | radius |

6. June/2022/Paper\_12/No.34

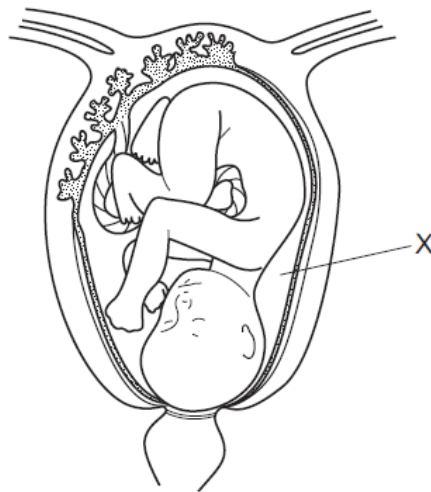
The diagram shows the human male reproductive system.

Which structure may contain sperm?



7. June/2022/Paper\_12/No.36

The diagram shows a developing fetus in the uterus.

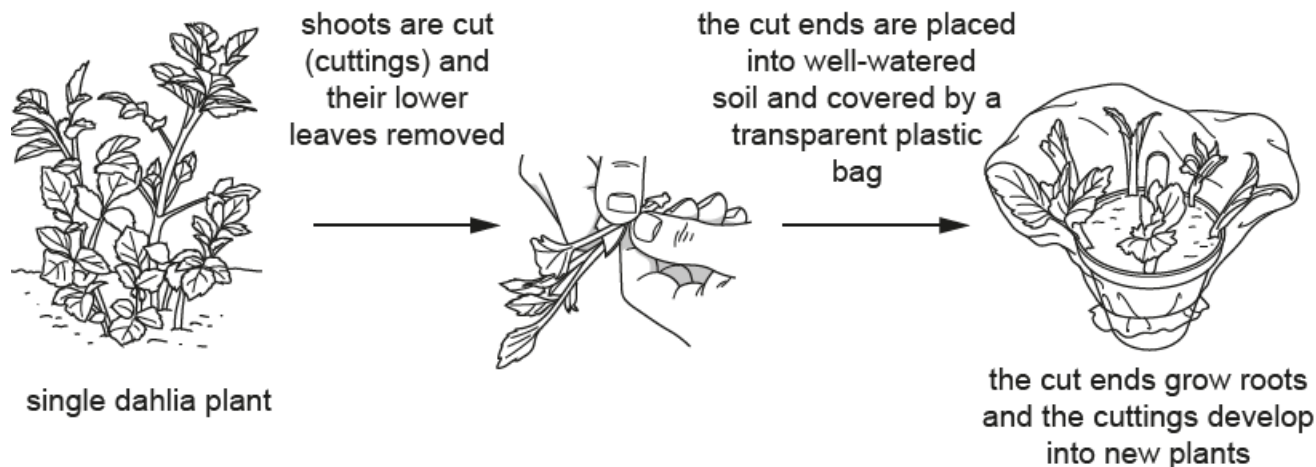


What is the liquid at X called?

- A amniotic fluid
- B blood
- C urine
- D water

8. June/2022/Paper\_21/No.3(a)

A gardener grows a species of dahlia, a flowering plant.  
 Each year the gardener chooses his best plants and takes cuttings to make new plants.



(a) (i) Removing the lower leaves and placing the cuttings in a transparent bag helps prevent them wilting until the roots develop.

Suggest and explain how these two steps help to prevent wilting.

removal of lower leaves .....

.....  
 .....

covering with transparent bag .....

.....  
 .....

[3]

(ii) Taking cuttings is a commercial application of asexual reproduction.

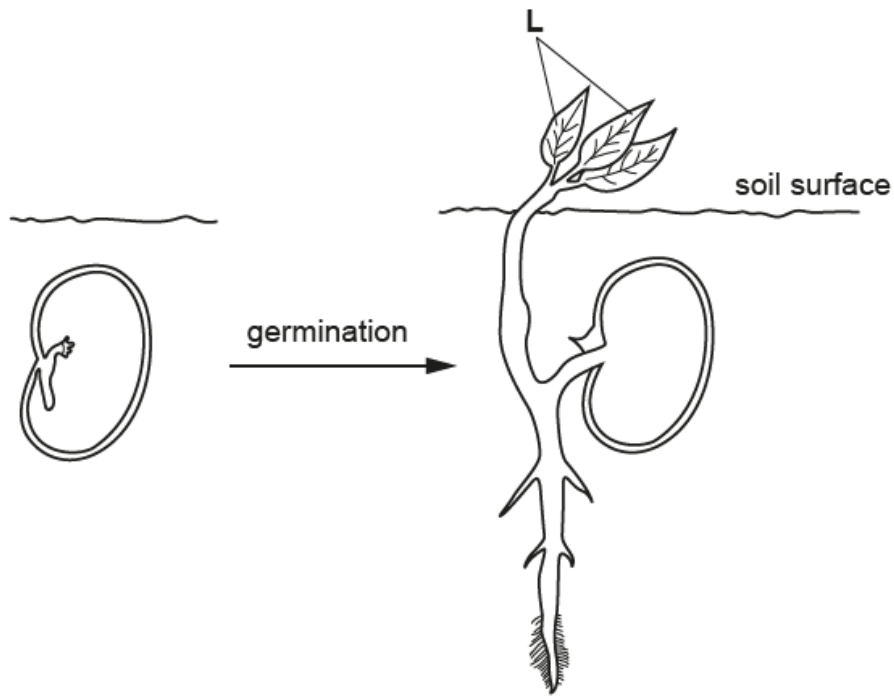
Define asexual reproduction.

.....  
 .....

[2]

9. June/2022/Paper\_22/No.7(a\_b)

The diagram shows a cross-section through a seed before germination and the same seed after it has become a seedling.



(a) Outline the importance of the following in seed germination:

enzymes .....

.....

.....

.....

.....

.....

cell division .....

.....

.....

.....

.....

.....

[7]

**(b)** Explain why it is important that the structures labelled **L** in the seedling are above the soil surface.

.....

.....

.....

..... [3]