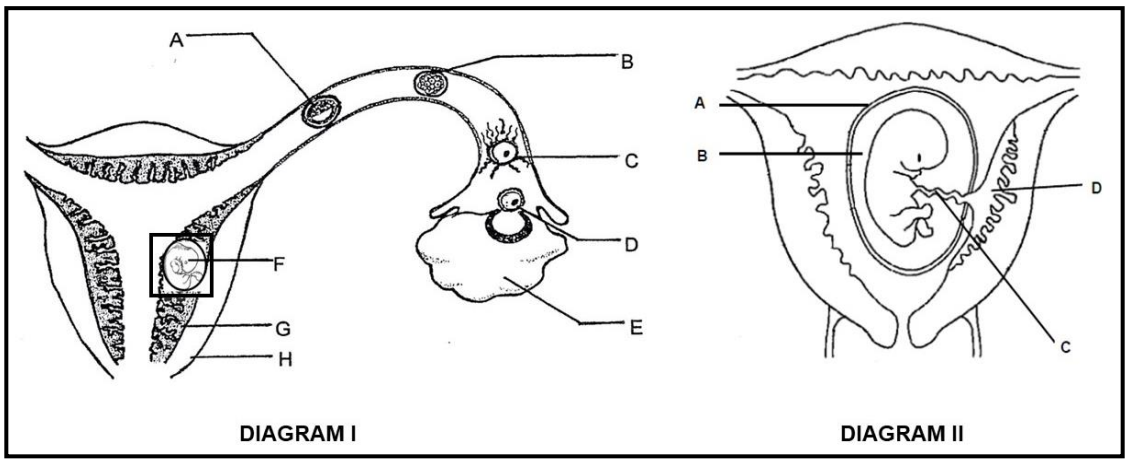
SECTION B

QUESTION 2

2.1 The diagrams below depict parts and phases in the female reproductive system. Diagram I show the steps involved in the development of structure F. In diagram II an enlarged image of structure F is given a few months after its development in the uterus. Study the two diagrams and answer the questions that follow.



For DIAGRAM I:

2.1.1 Identify structures E and G respectively. (2)

2.1.2 Identify the process that is represented by D. (1)

2.1.3 What is the chromosome number of structure B? (1)

2.1.4 Identify the type of cell division that leads to the development of structure B. (1)

2.1.5 Explain why scar tissue blocking the fallopian tube could lead to a female not being able to fall pregnant. (2)

For DIAGRAM II:

2.1.6 Identify part A. (1)

2.1.7 Provide ONE function of the fluid B. (1)

2.1.8 Name ONE system in the baby's body that will take over the function of D as soon as the baby is born. (1)

2.1.9 Explain the consequence for pregnancy if part D stops producing and secreting progesterone. (2)

2.1.10 Part C consists of a vein and an artery that transport blood between the mother and the foetus. If the artery were to be blocked, explain how this would affect the development of the foetus. (3)

(15)

MEMO

SECTION B
QUESTION 2

2.1 2.1.1 E – Ovary ✓
G - Endometrium✓ (2)

2.1.2 D - Ovulation✓ (1)

2.1.3 46 ✓ (1)

2.1.4 Mitosis✓ (1)

2.1.5 Sperm cells will not be able to reach the ovum in the fallopian tube✓ for fertilisation✓ / no fertilisation occurs (2)

2.1.6 Amnion✓ / Amniotic membrane (1)

2.1.7 MARK FIRST ONE ONLY:
- Protects the foetus against shocks✓ / shock absorber
- Protects the foetus against dehydration ✓
- Protects the foetus against temperature changes ✓
- Allows for free-floating movement ✓
(1)

2.1.8 MARK FIRST ONE ONLY:
- Gaseous exchange system✓
- Excretory system✓
- Digestive system✓ (1)

2.1.9 - Endometrium will break down✓
- Causing a miscarriage✓ (2)

2.1.10 ANY 3:
- Waste products (or example urea, CO_2) will not be transported back to the placenta✓
- and will accumulate in the foetus✓
- changing the pH of the foetus✓/increasing toxicity
- Foetus will die✓
(3)
(15)