



**Science Revised Syllabus
Junior Certificate
Higher Level**

**Past Exam Questions on
B Reproduction and Genetics**

Q1 Part (a) 2013

Question 1

(52)

- (a) The twins in the photo are described as identical. What does this tell us about their genetic makeup?

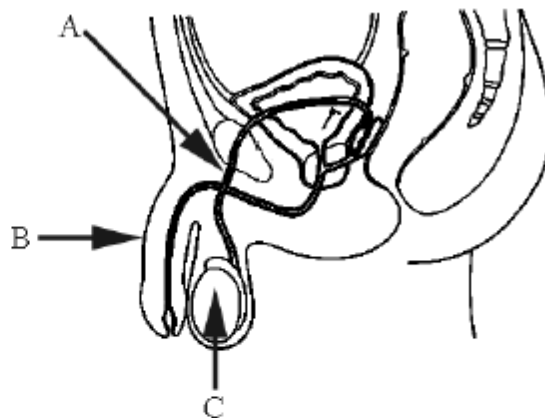


What? _____

Q1 Part (h) 2013

- (h) The diagram is of the male reproductive system.

Give the role played by each of parts labelled A, B and C in reproduction.



Role of A _____

Role of B _____

Role of C _____

A sperm has a head and a tail. State the role of each.

Head _____

Tail _____

Q1 Part (d) 2012

(d) What is contraception?

What? _____

Name one form of contraception.

Name _____

Q1 Part (f) 2012

(f) Name the two substances that chromosomes are made of.

Substance one _____

Substance two _____

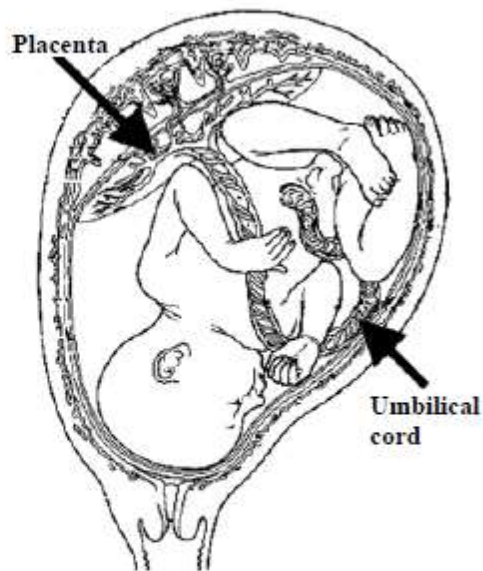
Q2 Part (b) 2011

(b) The diagram shows a baby in the womb. The placenta and umbilical cord are labelled.

(i) Give two functions of the placenta. (6)

1 _____

2 _____



(ii) What is the function of the umbilical cord, which connects the baby to the placenta? (3)

What? _____

(iii) Describe, briefly, four events that occur at the end of pregnancy (i.e. just before birth, at birth and just after birth). (12)

1 _____

2 _____

3 _____

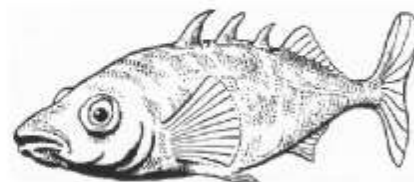
4 _____

Q1 Part (a) 2010

Question 1

(52)

(a) The diagram shows a stickleback, a small fish, that lives in our fresh water habitats. Give two *adaptations* that fish have to help them to live in water.



One _____

Two _____

Q1 Part (f) 2010

(f) Name the two *principal substances* that chromosomes are composed of.

One _____ Two _____

Q1 Part (f) 2009

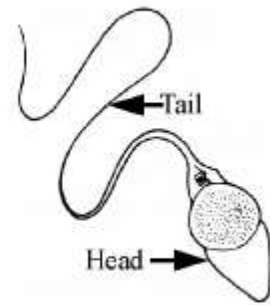
(f) The diagram shows a sperm. The tail enables the sperm to swim.

(i) Why does the sperm need to be able to swim?

Why? _____

(ii) Where does fertilisation occur?

Where? _____

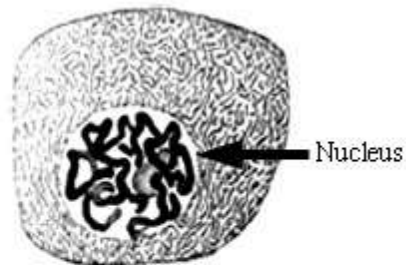


Q1 Part (e) 2008

(e) At certain stages in the life of a cell *thread-like structures* that contain genes can be seen in the nucleus.

What are these thread-like structures called?

What? _____

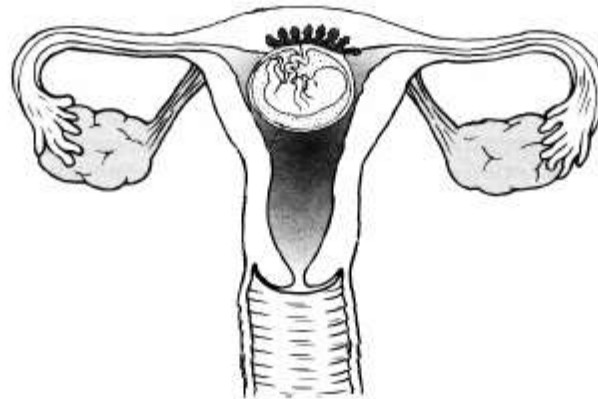


Genes are located on these thread-like structures. Give a *role* that genes play in life processes.

Role _____

Q3 Part (a) 2008

- (a) The diagram shows a *human female's reproductive system with an eight week embryo (foetus)* which is clearly recognisable as human. The organs of the foetus are formed and will grow and mature for the next seven months.



- (i) Mark clearly on the diagram, using an arrow and the label *S*, where the *semen* (liquid containing sperm) was released into the female. (3)
- (ii) Mark clearly on the diagram, using an arrow and the label *F*, where *fertilization* took place. (3)
- (iii) Explain the term *fertilisation*. (6)

- (iv) State two *events* that occur *in the hours before birth* and one *event* that takes place shortly *after the baby is born*. (9)

Before

1 _____

2 _____

After

1 _____

Q1 Part (e) 2007

- (e) The photograph is of James Dewey Watson who together with Francis Crick published the molecular structure of DNA in 1953. Where is DNA *located* in cells?



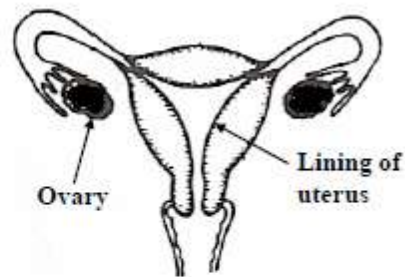
Location _____

Name a second *substance* associated with DNA.

Second substance _____

Q1 Part (e) 2006

- (e) The diagram shows the female reproductive system during the *fertile period* of the menstrual cycle. What happens in the ovary during this time? What happens to the lining of the uterus during this time?



What happens in the ovary? _____

What happens to the lining of the uterus? _____

Q1 Part (f) 2006

- (f) Eye colour, hair texture and many other human characteristics are controlled by *genes*. Name the *structures* in the *nuclei* of our cells where *genes* are located. Name the *substance* that genes are made of.

Name of structures _____

Name of substance _____