

NAME _____ INDEX NUMBER _____

SCHOOL _____ DATE _____

REPRODUCTION IN PLANTS AND ANIMALS

1. 1989 Q5 P1

The table below shows two mammalian hormones. For each hormone, state the site of production and its function in the body.

Hormone	Site of production	function
Oestrogen		
Aldosterone		

2. 1989 Q10 P1

At what stage of mitosis do chromosomes replicate to form daughter chromatids?

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3. 1990 Q5 P1

Fill in the blank spaces in statement below.

After fertilization of an ovule.....develops in to a testa

and.....develops into endosperm.

4. 1990 Q8 P1

State the differences between the composition of maternal blood entering the placenta and maternal blood leaving the placenta.

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5. 1991 Q3 P1

After four months of pregnancy, the ovaries of a woman can be removed without terminating pregnancy. However, during the first four months of pregnancy, the ovaries must remain intact if pregnancy is to be maintained. Explain these observations.

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6. 1991 Q12 P1

(a) State the type of sexual reproduction in each of the following organisms.

(i) Hydra

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(ii) Moss (funari)

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(b) State two advantages of sexual reproduction to the survival of a species.

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(c) State two ways in which man has utilized vegetative reproduction in plants for his own benefits.

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7. 1992 Q8 P1

Name two mechanisms that prevent self-pollination in flowers that have both male and female parts

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8. 1993 Q11 P1

The diagram below represents some stages in mitosis



(a) Name the stages represented by the diagrams labeled A, B and C

A.....

B.....

C.....

(b) State the significance of mitosis to an organism.

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(c) Name two regions in higher plants where cells actively undergo mitosis

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9. 1995 Q16 P1

(a) Describe how insect pollinated flowers are adapted to pollination

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(b) Describe the role of each of the following hormones in the human menstrual cycle

(i) Oestrogen

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(ii) Progesterone

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(iii) Luteinising hormone

(9 marks)

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10. 1996 Q2 P1

State two ways by which acquired Immune deficiency syndrome (A.I.D.S) Virus is transmitted. (2 marks)

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11. 1996 Q9 P1

State three characteristics that ensure cross – pollination takes place in flowering plants (3 marks)

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12. 1996 Q12 P1

Give a reason why it is necessary for frogs to lay many eggs (1 mark)

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13. 1996 Q22 P1

Describe how new plants arise by asexual reproduction (20 marks)

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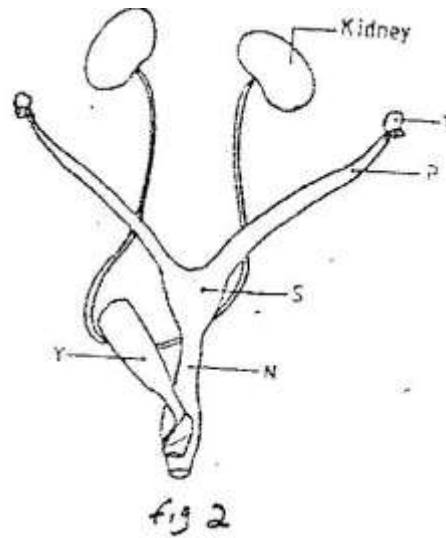
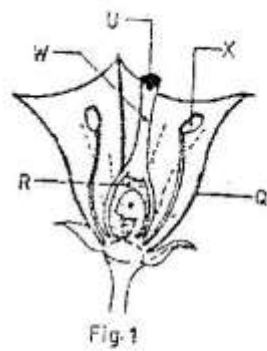
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14. 1997 Q17 P1

Figures 1 and 2 below represent reproductive organ of plants and an animal respectively.



(a) Which letters in figures 1 and 2 represent the organs that produce female gametes?

Figure 1.....

Figure 2.....

(b) What is the function of the structure labeled S?

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(c) Name the structure labeled W

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(d) Which letters in figures 1 and 2 represent the structures where fertilization takes place

.....

(e) Which letter in figure 1 represents the structure where male gametes are produced?

.....

15. 1998 Q8 P1

A flower was found to have the following characteristics:

- Inconspicuous petals
- Long feathery stigma
- Small, light pollen grains

(a) What is the likely agent of pollination of the flower

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(b) What is the significance of the long feathery stigma in the flower?

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16. 1998 Q11 P1

State two ways by which the human immunodeficiency (H.I.V) is transmitted other than through sexual intercourse?

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17. 1998 Q13 P1

(a) List four differences between meiosis and mitosis

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(b) Which sex chromosomes are found in human?

(i) Sperm cell?

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(ii) Ova?

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18. 1999 Q3 P1

Explain why sexual reproduction is important in organisms

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19. 1999 Q8 P1

State two disadvantages of self-pollination.

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20. 2000 Q9 P1

State two advantages of metamorphosis to the life of insects.

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21. 2000 Q16 P1

(a) What is the significance of sexual reproduction?

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(b) State three advantages of asexual reproduction

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22. 2000 Q18 P1

Describe the role of hormones in the human menstrual cycle

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24. 2001 Q18 P1

(a) Describe the process of fertilization in a flowering plant

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(b) State the change that take place in a flower after fertilization

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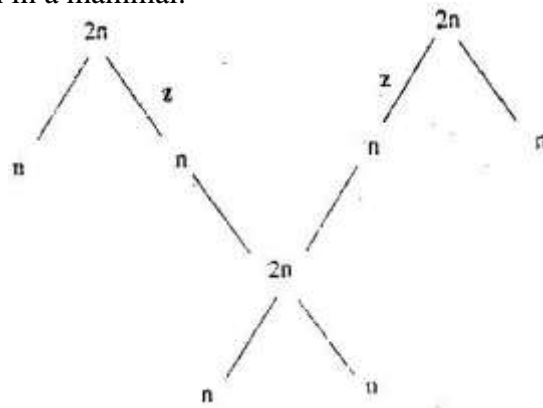
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25. 2002 Q13 P1

The chart below shows the number of chromosomes before and after cell division and fertilization in a mammal.



- a) What type of cell division takes place at Z
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- b) Where in the body of a female does process Z occur
.....
- c) On the chart, indicate the position of parents and gametes
- d) Name the process that leads to addition or loss of one or more chromosomes.
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- e) State three benefits of polyploidy in plants to a farmer
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26. 2002 Q17 P1

- a) What structures are produced by sisal for vegetative propagation?
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- b) Give a reason for grafting in plants
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29. 2004 Q5 P1

During which phase of meiosis does crossing over occur. (2marks)

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30. 2004 Q11 P1

Fruit formation without fertilization is called (1mark)

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31. 2004 Q15 P1

a) Give the differences between the following structures in wind and insect pollinated flowers. (3marks)

i) Anther

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ii) Pollen grains

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iii) Stigma (1mark)

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b) What is the importance of cross pollination? (1mark)

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c) Explain how a seed is formed after an ovule is fertilized (4marks)

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32. 2005 Q15 P1

a) What is meant by the terms
(i) Epigymous flower (1mark)

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(ii) Staminate flower? (1mark)

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b) How are the male parts of wild pollinated flowers adapted to their function? (4marks)

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33. 2006 Q2, 9 P1

2. Name the part of the flower that develops into

a) Seed
.....
b) Fruit (1mark)

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9. a) State two processes which occur during anaphase of mitosis. (2marks)

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b) What is significance of meiosis? (2marks)

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34. 2006 Q19 P1

a) Explain how the following prevent self pollination. (1mark)

(i) Protoadry

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(ii) Self – sterility.

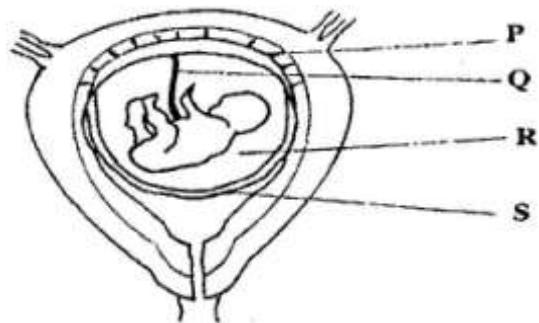
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b) Give three advantages of cross pollination. (3marks)

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35. 2006 Q5 P2

The diagram below represents human foetus in a uterus.



a) Name the part labeled S. (1mark)

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b) i) Name the types of blood vessels found in the structure labeled Q. (2marks)

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ii) State the differences in composition of blood found in the vessels named in (b)(i) above. (2marks)

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c) Name two features that enable the structure labeled P carry out its function. (2marks)

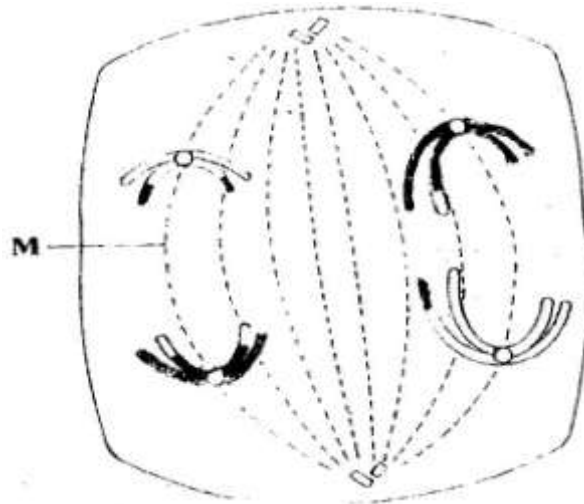
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d) State the role of the part labeled R (1mark)

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36. 2007 Q17 P1

The diagram below represents a stage during cell division



(a) (i) Identify the stage of cell division (1 mark)

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(ii) Give three reasons for your answer in (a) (i) above (2 marks)

.....

(b) Name the structures labeled M (1 mark)

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37. 2007 Q18 P1

State two disadvantages of sexual reproduction in animals (2 marks)

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38. 2007 Q26 P1

State one way in which HIV / Aids is transmitted from mother to child (1mark)

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39. 2007 Q3 P2

(a)What is meant by the following terms

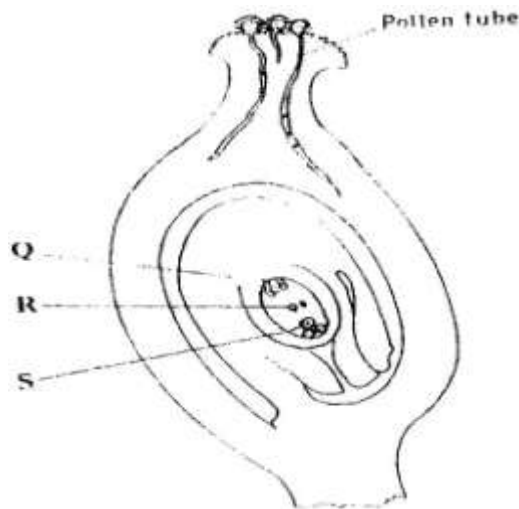
(i) Protandry (1 mark)

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(ii) Self sterility? (1 mark)

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(b)The diagram below shows a stage during fertilization in a plant



(i) Name the parts labeled Q, R, and S (3 marks)

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(ii) State two functions of the pollen tube (2 marks)

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(c) On the diagram label the micropyle (1 mark)

40. 2008 Q8 P1

The diagram below shows a stage in mitosis in a plant cell



- (a) Name the stage of mitosis (1mark)

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- (b) Give two reasons for your answer in (a) above (2 marks)

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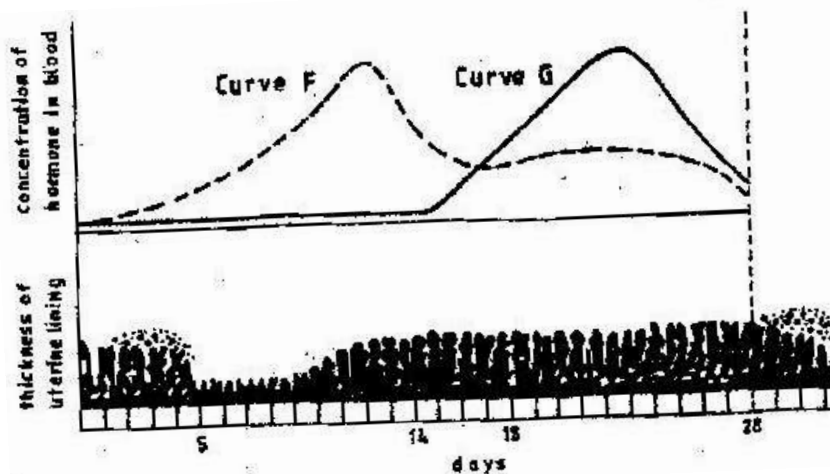
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- (c) Name the part of the plant from which the cell used in preparation was Obtained (1 mark)

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41. 2008 Q1 P2

The figure shows changes that take place during menstrual cycle in human



- (a) Name the hormone whose concentrations are represented by curves F and G (2 marks)

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- (b) State the effects of the hormones named in (a) above on the lining of the uterus (2 marks)

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- (c) (i) Name the hormone which is released by the pituitary gland in high concentration on the 14th day of the menstrual cycle (1 mark)

.....
(ii) State two functions of the hormone named in (c) (I) above (2 marks)

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.....

(d) State the fertile period during the menstrual cycle (1 mark)

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42. 2009 Q8 P1

(a) Pregnancies continues if the ovary of an expectant mother is removed after 4 months explain (2 marks)

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(b) What is the role of the testes in the mammalian reproductive systems? (2 marks)

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43. 2009 Q7 P2

How are flowers adapted to wind and insect pollination? (20 marks)

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44. 2010 Q22 P1

What is the function of the following structure in the human reproductive organ?

a) Fallopian tubes. (1 mark)

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b) Epididymis. (1 mark)

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c) Scrotal sac (1 mark)

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45. 2010 Q7 P2

Describe the process of fertilization in flowering plants. (20 marks)

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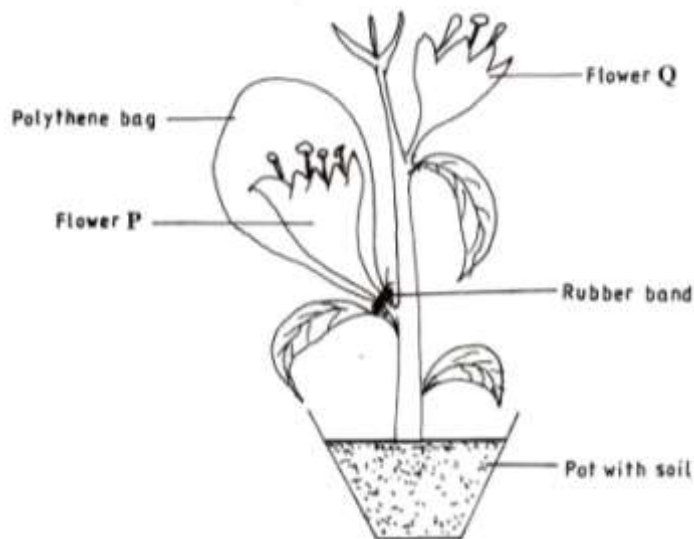
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48. 2012 Q16 P1

The diagram below represents an experimental set-up used by students to investigate a certain process.



Flower Q produced seeds while P did not. Account for the results. (3marks)

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49. 2012 Q17 P1

Name two substances that leave the foetal blood through the placenta. (2marks)

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50. 2012 Q25 P1

State the role of the following hormones in the life cycle of insects: (2marks)

Ecdsone hormone;

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Juvenile hormone.....

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