

16.2. SEXUAL REPRODUCTION

01. 0610_s16_qp_22 Q: 28

What are the characteristics of asexual reproduction?

	fusion of gamete nuclei	genetic variety in the offspring
A	✓	✓
B	✓	✗
C	✗	✓
D	✗	✗

16.2 Sexual reproduction

02. 0610_s21_qp_21 Q: 30

A zygote has ten chromosomes in its nucleus.

Which row shows the number of chromosomes in the cells of this species?

	body cells	sperm cells	embryo cells
A	5	5	10
B	5	10	20
C	10	5	10
D	10	10	20

03. 0610_p20_qp_20 Q: 25

Which feature of sexual reproduction helps a species to evolve?

- A** Fewer offspring are produced than in asexual reproduction.
- B** Offspring are the result of the fusion of the nuclei of dissimilar gametes.
- C** Offspring always inherit advantageous characteristics.
- D** Offspring produced will always be in a suitable environment.

04. 0610_w20_qp_23 Q: 27

Scientists investigated the amount of genetic variation found within different crop plants. They grew large numbers of each crop and measured the genetic variation within the species of crop. The results are shown in the table.

crop	percentage genetic variation
banana	0
pea	65
carrot	54

Which crop or crops have been produced by sexual reproduction?

- A banana only
- B banana, pea and carrot
- C pea only
- D pea and carrot only

05. 0610_m19_qp_22 Q: 29

What describes the nuclei in human reproduction?

	egg	sperm	zygote
A	diploid	diploid	diploid
B	diploid	diploid	haploid
C	haploid	haploid	diploid
D	haploid	haploid	haploid

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06. 0610_w19_qp_21 Q: 30

How many chromosomes are there in each of the human cells shown in the table?

	goblet cell	motor neurone	mature red blood cell	sperm
A	0	23	0	0
B	23	23	23	0
C	46	46	0	23
D	46	46	46	23

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07. 0610_s18_qp_22 Q: 28

The diploid number in *Ovis aries* (sheep) is 54.

How many chromosomes will there be in a zygote of this species?

- A** 0 **B** 27 **C** 54 **D** 108
-

08. 0610_w18_qp_21 Q: 27

Which row describes sexual reproduction?

	gamete nucleus	zygote nucleus	genetically different offspring produced
A	diploid	diploid	x
B	diploid	haploid	x
C	haploid	diploid	✓
D	haploid	haploid	✓

09. 0610_w18_qp_22 Q: 30

A sperm cell from a domestic cat contains 19 chromosomes.

If this cell fertilises an egg, which zygote is produced?

- A** diploid, with 19 chromosomes
B diploid, with 38 chromosomes
C haploid, with 19 chromosomes
D haploid, with 38 chromosomes
-

10. 0610_w18_qp_23 Q: 31

Which feature of meiosis ensures that the zygote is diploid?

- A** Chromosomes are duplicated.
B Four gametes are formed.
C Genetically different gametes are formed.
D Haploid gametes are formed.
-

11. 0610_s17_qp_22 Q: 28

Which row correctly shows whether the nuclei of the cells are diploid or haploid?

	body cells	gametes	zygote
A	diploid	diploid	haploid
B	diploid	haploid	diploid
C	haploid	diploid	haploid
D	haploid	haploid	diploid

12. 0610_w17_qp_22 Q: 28

After fertilisation, how many chromosomes are in the zygote?

- A** half as many as in an ovum
- B** the same as in an ovum
- C** the same as in a sperm
- D** twice as many as in a sperm

13. 0610_w17_qp_22 Q: 32

The diagram shows a cell from an organism at the end of meiosis.



What is the diploid number for cells from this organism?

- A** 3
- B** 6
- C** 12
- D** 24

14. 0610_s16_qp_21 Q: 29

What are advantages of sexual and asexual reproduction?

	advantage of sexual reproduction	advantage of asexual reproduction
A	less population growth	only one parent required
B	more energy efficient	gametes can be transferred by environment
C	more genetic variation	faster
D	no transfer of gametes needed	does not compete with the parent for nutrients

SN	Paper	Q. No.	Answer
01	0610_s16_qp_22	28	D
02	0610_s21_qp_21	30	C
03	0610_p20_qp_20	25	B
04	0610_w20_qp_23	27	D
05	0610_m19_qp_22	29	C
06	0610_w19_qp_21	30	C
07	0610_s18_qp_22	28	C
08	0610_w18_qp_21	27	C
09	0610_w18_qp_22	30	B
10	0610_w18_qp_23	31	D
11	0610_s17_qp_22	28	B
12	0610_w17_qp_22	28	D
13	0610_w17_qp_22	32	C
14	0610_s16_qp_21	29	C



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