PRINCE EDWARD ISLAND BIOLOGY 12 · UNIT A

Cell Division: Mitosis and Meiosis — Practice Test

Prince Edward Island Biology 12 • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A cell divides by mitosis 3 times in succession starting from 1 cell or cells. The final cell count is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A body cell of a species has 46 chromosomes. A gamete of that species has this many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A cell in meiosis produces 4 gametes. Starting from 3 parent cells, the gamete count is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A species has a diploid number of 30. Its haploid number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A species has a haploid number of 9. Its diploid number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A diploid cell that undergoes meiosis gives gametes with**

A no chromosomes

B half the chromosome number

C the same chromosome number

D double the chromosome number

Understand It with Pulse | Flag a mistake

7 **A human skin cell has 46 chromosomes. A human egg cell has this many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A human zygote has 46 chromosomes. After one mitotic division, each daughter cell has this many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A karyotype shows chromosomes arranged by**

A age of the cell

B size and centromere position

C gene sequence only

D cell type only

Understand It with Pulse | Flag a mistake

10 **Crossing over occurs during**

A prophase of mitosis

B metaphase 2

C telophase 2

D prophase 1 of meiosis

Understand It with Pulse | Flag a mistake

11 **Cytokinesis is the division of the**

A chromosomes only

B cell membrane only

C cytoplasm

D nucleus only

Understand It with Pulse | Flag a mistake

12 **DNA replication occurs during**

A telophase only

B cytokinesis only

C interphase

D prophase only

Understand It with Pulse | Flag a mistake

13 **Homologous chromosomes separate during**

A telophase 1 only

B anaphase 1 of meiosis

C anaphase of mitosis

D prophase 2

Understand It with Pulse | Flag a mistake

14 **Independent assortment increases variation because homologous pairs**

A replicate twice

B never separate

C line up randomly at metaphase 1

D always stay together

Understand It with Pulse | Flag a mistake

15 **Meiosis produces cells that are**

A diploid

B identical to the parent

C always identical to each other

D haploid

Understand It with Pulse | Flag a mistake

16 **Mitosis produces two daughter cells that are genetically**

A identical to the parent

B different from the parent

C haploid always

D gametes only

Understand It with Pulse | Flag a mistake

17 **Nondisjunction is the failure of chromosomes to**

A separate properly

B replicate

C condense

D attach to spindle fibres

Understand It with Pulse | Flag a mistake

18 **Sister chromatids separate during**

A anaphase 2 of meiosis and anaphase of mitosis

B anaphase 1 only

C metaphase only

D interphase only

Understand It with Pulse | Flag a mistake

19 **Starting from 6 parent cells, meiosis gives this many gametes**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A cell divides by mitosis 2 times in succession starting from 2 cell or cells. The final cell count is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A body cell of a species has 8 chromosomes. A gamete of that species has this many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A cell in meiosis produces 4 gametes. Starting from 5 parent cells, the gamete count is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A species has a diploid number of 22. Its haploid number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A species has a haploid number of 15. Its diploid number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A cell divides by mitosis 3 times in succession starting from 4 cell or cells. The final cell count is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	8	**10.**	D	**19.**	24
2.	23	**11.**	C	**20.**	8
3.	12	**12.**	C	**21.**	4
4.	15	**13.**	B	**22.**	20
5.	18	**14.**	C	**23.**	11
6.	B	**15.**	D	**24.**	30
7.	23	**16.**	A	**25.**	32
8.	46	**17.**	A		
9.	B	**18.**	A		

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