AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Stem Cells Answers

Name:

M M E

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Total Marks: /17

Q1: What type of cell is a stem cell?

A= Undifferentiated Cell

(1 mark)

Q2: Name 2 cell types that can be produced from animal stem cells.

A= 2 marks awarded for any 2 of the following points:

- Blood Cells
- Skin Cells
- Any Organ Cells
- Muscle Cells

(2marks)

Q3: Where in adults would you find stem cells?

A= Bone marrow

(1 mark)

Q4: Stem cells can be used to treat specific conditions. Name a condition, which can be treated using stem cells.

A= Any one of the following:

- Diabetes
- Paralysis
- Leukaemia
- Retinal Disease
- Cancer
- Heart Disease

(1 mark)

Q5: Plants contain structures of unspecialised cells. What name is given to these cell structures.

A= Meristems

(1 mark)

Q6: Give 2 ways the unspecialised cells in plants are used.

A= 2 marks for any 2 of the following:

- Height of plants
- Length of Roots
- Girth of Stem
- Leaf Production
- Flower Production

(2 marks)

Q7: Cloning can be used for treatment in some conditions. Explain the advantages of using cloned stem cells to treat patients.

A= 2 marks for any 2 of the following:

- Same genes as the patient
- Not rejected by the body/ Compatable
- Multiple treatments/ can make more cells

(2 marks)

Q8: The use of stem cells also has some disadvantages. Name 2 social disadvantages to using stem cells and cloning.

A= 2 marks for the following:

- Ethical
- Religious

(2 marks)

Q9: Stem cell cloning can also be used in plants. Discuss the uses of cloning in plants

A= 4 marks to be awarded for any of the following:

- Rare Species
- Prevent Extinction
- Create large amounts of 1 variety
- Disease resistance
- Increase farmers Profits

1 mark to be awarded for continuous prose.

(5 marks)