

AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Vaccination Answers

Name:

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Total Marks: /22

Q1: Explain what a vaccine is.

A= Dead/ Inactive pathogen used to develop immunity.

(1 mark)

Q2: Describe the differences in immune response between first infection and secondary infection.

A= 1 mark for each of the following points:

- 1st time
 - Get ill
 - Slow response
- 2nd time
 - Don't get ill
 - Fast response

(4 marks)

Q3: What is an antigen?

A=foreign substance which induces an immune response

(1 mark)

Q4: What is an antibody?

A= Plasma cell used by the immune system to detect antigens

(1 mark)

Q5: Give 2 examples of diseases, which can be immunised against.

A= Accept any 2 of the following:

- Meningitis
- Tb (Tuberculosis)
- Tetanus
- Polio
- Measles
- Mumps
- Rubella

(2 marks)

Q6: Give an example of a disease which, has been wiped out thorough a successful vaccination program.

A= small pox

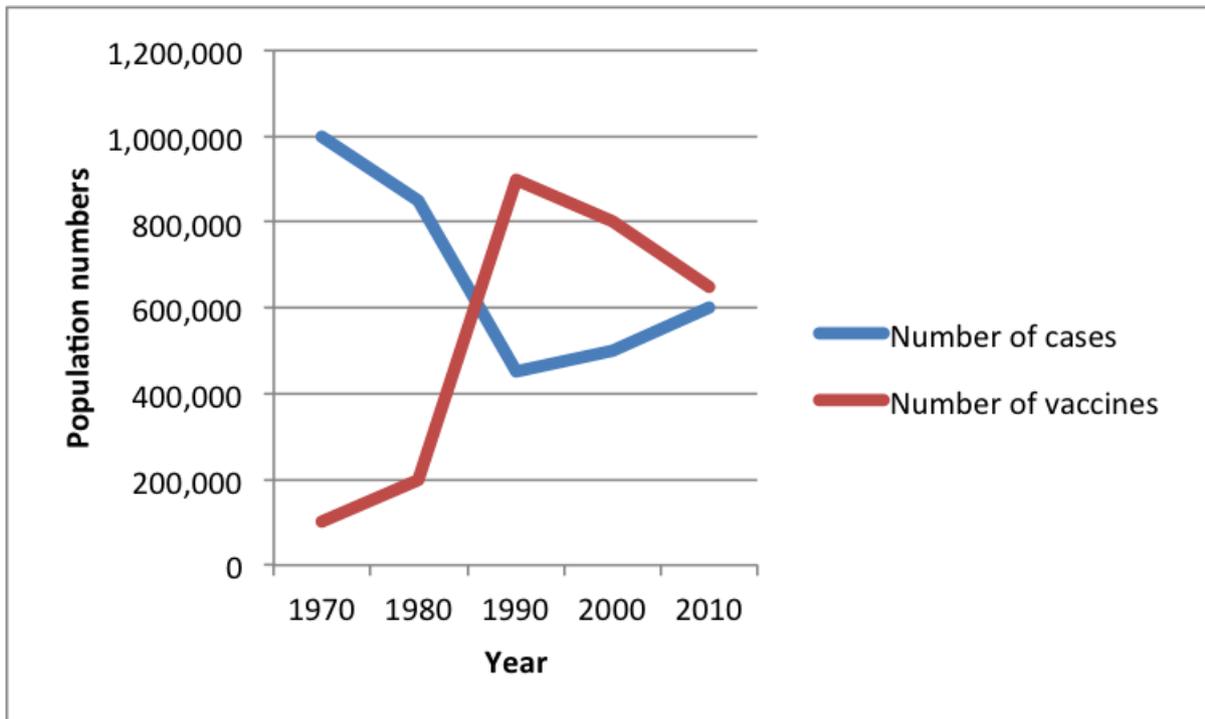
(1 mark)

Q7: Explain why a large vaccine uptake prevents the spread of disease.

A= Less of the population to infect

(1 mark)

Q8: The graph shows the uptake in the Tb vaccine. Discuss the correlation between the number of cases and the uptake of vaccination.



A= 1 mark for each of the following:

- As number of vaccinations increase
- The number of cases decreases.

(2 marks)

Q9: Define what is meant by herd immunity.

A= the immunisation of a population

(1 mark)

Q10: Measles has yet to be eradicated. What percentage herd immunity does the WHO require to declare measles eradicated?

A= 95%

(1 mark)

Q11: Why is measles difficult to herd immunise against to achieve eradication.

A= Accept 2 of the following:

- Requires 2 vaccinations
- High population % needed
- High expense

(2 marks)

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Q12: Developing countries are often difficult to vaccinate in. Explain why.

A= Accept 5 of the following:

- High cost
- Large amounts rural living
- Refrigeration
- Lack of education/ Awareness
- Lack of infrastructure/ Roads
- Lack of hygiene standards

(5 marks)