AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Drug Development Answers

Name:

MME
Mathsmadeeasy.co.uk

Total Marks: /23

Q1: Before a new drug can be widely used. What process must occur?

A= Accept any 1 of the following:

- Testing
- Clinical Trials

(1 mark)

Q2: Why are clinical trials vital to drug development?

A= Accept 1 of the following:
- Works well
- Safe as possible

(1 mark)

Q3: Explain what a new drug needs to be considered a good medicine.

A= 1 mark for each of the following:
- Effective – must achieve purpose
- Safe- Limited side effects
- Stable – must be able to store
- Successful uptake and removal from the body.

(4 marks)

Q4: Circle how long it can take to make a new drug available for general use.

12 years

5 years   20 years

2 years

10 years

(1 mark)

Q5: What term is used when describing if a drug does its job?

A= Efficiency

(1 mark)

Q6: Once a drug has been chemically tested, what is required before a drug can be tested on humans?

A= Animal testing

(1 mark)

Q7: Discuss the stages of preclinical testing.

A= Accept either Cell/ Tissues (1)
- Live animals (1)

(2 marks)

Q8: Explain how clinical trials of new drugs are carried out.

A= Accept any 5 of the following:
- Use healthy volunteers/ Patients
- 1st give low dose – side effects
- Given to small numbers of patients – check it treats disease
- Test on larger numbers – determine dose
- Legal tests – licence for use
- Monitor long term effects – safety

(5 marks)

Q9: Define what a placebo is.

A= A substance that has no physical effect and used to check physiological effect of a drug.

(1 mark)

Q10: Clinical Trials rely on double blind study's to see how effective their new drugs are. Explain how a double blind study is carried out.

A= Accept any 4 of the following:
- Use target disease patients
- Some get placebo/ some new medicine
- Patients allocated randomly
- Doctor and patients don't know which group
- Monitor groups carefully.

(4 marks)

Q11: Explain why results clinical trials are published and why.

A= 1 mark for each of the following:
- Peer review
- Prevent false results/ claims

(2 marks)