KS3 SCIENCE · BIOLOGY

# Drugs and health: exam questions

Name _____
Total: 22 marks

**1** State what is meant by a drug. **[1 mark]**

**2** Describe the difference between a medicine and a recreational drug. **[2 marks]**

**3** Name one recreational drug that is legal for adults. **[1 mark]**

**4** Alcohol is a depressant and caffeine is a stimulant. Describe one effect of each on the body. **[2 marks]**

**5** Explain why it is dangerous to drive after drinking alcohol. **[2 marks]**

**6** Name one organ that is damaged by drinking large amounts of alcohol over many years, and describe the damage. **[2 marks]**

**7** Name the addictive drug in tobacco smoke. **[1 mark]**

**8** Explain why a smoker finds it hard to stop smoking. **[2 marks]**

**9** Describe two ways in which smoking harms the body outside the lungs. **[2 marks]**

**10** Drug misuse can change a person's behaviour and harm their health. Give one example of each. **[2 marks]**

**11** An adult volunteer does a ruler-drop test. Before a cup of coffee, the ruler falls 19 cm, 17 cm and 18 cm before it is caught. Half an hour after the coffee, the mean distance is 15 cm. Calculate the mean distance before the coffee, and state what the results show about the volunteer's reaction time. **[2 marks]**

**12** In the ruler-drop test, give two things that should be kept the same each time to make it a fair test. Then explain why each test is repeated three times. **[3 marks]**

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# Drugs and health: mark scheme

Total: 22 marks

**1** [1 mark]

- A substance that changes the way the body or mind works (accept: a chemical that affects the body) **(1)**

**2** [2 marks]

- A medicine is taken to treat an illness or to ease its symptoms **(1)**
- A recreational drug is taken for its effect, not for a medical reason (accept: for enjoyment) **(1)**

**3** [1 mark]

- Caffeine, alcohol or nicotine (accept: tobacco) **(1)**

**4** [2 marks]

- Alcohol: slows down the nervous system (accept: slower reactions; poorer balance or judgement) **(1)**
- Caffeine: speeds up the nervous system (accept: more alert; faster reactions) **(1)**

**5** [2 marks]

- The driver's reaction time is longer (accept: slower reactions; poorer judgement) **(1)**
- The car travels further before the driver brakes (accept: a crash is more likely) **(1)**

**6** [2 marks]

- Liver (accept: brain or heart) **(1)**
- Liver: it becomes scarred, which is called cirrhosis (accept for the brain: brain damage or memory loss; for the heart: heart disease) **(1)**

**7** [1 mark]

- Nicotine **(1)**

**8** [2 marks]

- The smoker is addicted to nicotine (accept: the body depends on nicotine) **(1)**
- Stopping causes withdrawal symptoms, such as a strong craving or feeling irritable **(1)**

**9** [2 marks]

- One from: faster heartbeat; narrower blood vessels; higher blood pressure; heart disease (accept: heart attack); stroke; cancer of the mouth or throat; blood carries less oxygen **(1)**
- A second, different one from the same list **(1)**

Harm inside the lungs does not score. Heart disease and a heart attack count as one harm, not two.

**10** [2 marks]

- Behaviour: for example taking risks, poor decisions, or falling out with family **(1)**
- Health: for example damage to the brain, liver or heart, or addiction **(1)**

**11** [2 marks]

- Mean = (19 + 17 + 18) ÷ 3 = 18 cm **(1)**
- The reaction time was shorter after the coffee (accept: reacted faster) **(1)**

**12** [3 marks]

- One from: the same person; the same hand; the same ruler; the same starting position; the same quiet room **(1)**
- A second, different one from the same list **(1)**
- One result could be a fluke; a mean of three is more reliable (accept: to spot an odd result) **(1)**