

### Week 3 (MCQ Set 1)

#### LATEST SUBMISSION GRADE

93.33%

##### 1. Question 1

A half eaten sandwich, apparently abandoned by a criminal recently, is found at a crime scene. Which of the following forensic science laboratories would be least interested in it?

1 / 1 point

- ☒ Entomology lab
- ☐ Blood typing lab
- ☐ Odontology lab
- ☐ DNA lab

Correct

##### 2. Question 2

Roberto Calvi was found hanging from scaffolding beneath Blackfriars Bridge in London. Strong evidence that he had not hanged himself was

1 / 1 point

- ☒ there were no paint flakes from the scaffolding on his shoes.
- ☐ he had a false passport and money in his pocket.
- ☐ his watch had stopped.
- ☐ there was no water in his lungs.

Correct

##### 3. Question 3

A short statement of Locard's Exchange Principle would be

1 / 1 point

- ☒ "Every contact leaves a trace"

- ☐ "Every criminal leaves a trace"
- ☐ "Every trace leaves a contact"
- ☐ "Every crime scene has a contact"

**Correct**

4. Question 4

When salts of certain metals are introduced into a flame,

**1 / 1 point**

- ☒ the flame will change colour, depending on the metal.
- ☐ no change will be observed.
- ☐ the flame will be extinguished.
- ☐ the flame will change colour, depending on the amount of metal.

**Correct**

5. Question 5

SEM-EDX is the technique of choice for determining elemental composition if

**1 / 1 point**

- ☐ the sample is a very small particle.
- ☐ it is desired to analyse just a part of the sample.
- ☐ a non-destructive technique is required.
- ☒ all of the above.

**Correct**

6. Question 6

The President of the Republic of Ruritania has been shot. A gunman has been arrested and examination of his rifle shows that two bullets have been fired. NAA of bullet fragments found in the President's body gave the following results:

	silver content/ ppm	antimony content/ ppm
bullet fragment 1	22	873
bullet fragment 2	47	890
bullet fragment 3	49	551

The most likely conclusion is that

1 / 1 point

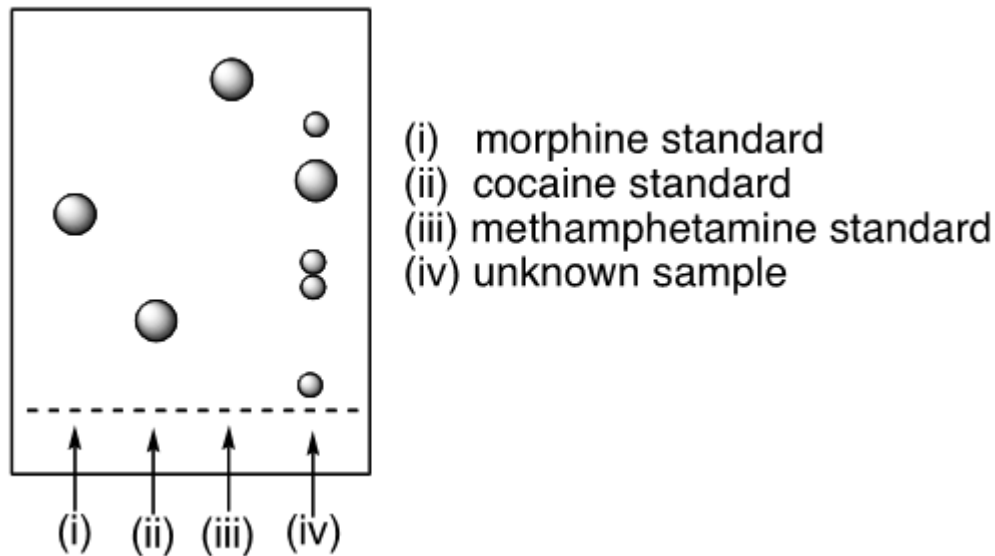
- ☐ only one gunman was involved.
- ☒ a second gunman was also involved.
- ☐ three gunmen were involved.
- ☐ no conclusion can be drawn.

**Correct**

7.

Question 7

From the TLC plate shown, what conclusion can be drawn about unknown sample (iv)?



1 / 1 point

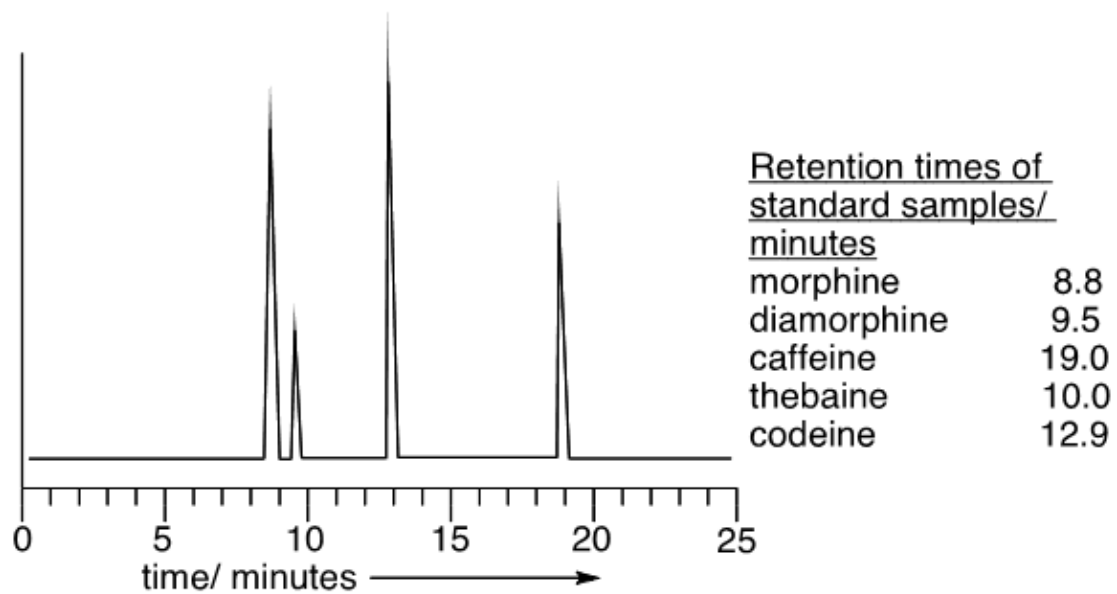
- ☐ It may contain morphine.
- ☐ It may contain cocaine.
- ☐ It may contain methamphetamine.
- ☒ It contains none of the three drugs.

Correct

8.

Question 8

A suspected drug sample is analysed by HPLC and the result is shown below. Which of the following is not present?



0 / 1 point

- ☐ Morphine
- ☐ Thebaine
- ☐ Diamorphine
- ☒ Caffeine

ANS MAY BE : Caffeine

Incorrect

9. Question 9

Which phenomenon is the basis of Infrared Spectroscopy?

1 / 1 point

- ☐ Molecular pulsation
- ☐ Molecular rotation
- ☐ Molecular fragmentation
- ☒ Molecular vibration

Correct

10. Question 10

A body is found. The skin temperature is found to be 86 °F (30 °C). Assume normal physiological temperature to be 99 °F (37 °C). From this, we can conclude that

1 / 1 point

- ☐ the person has been dead for less than 10 hours.
- ☒ we can conclude nothing because skin temperature is not a reliable indicator.
- ☐ the person has been dead for 8-12 hours.
- ☐ the person has been dead for over 10 hours.

Correct

11. Question 11

The presence of insects on a body can be used to estimate the time since death, but the estimate must make allowance for (i) the local temperature, (ii) whether the body was covered, (iii) the species of insect and/ or (iv) the age of the person.

1 / 1 point

- ☐ i and iii
- ☐ ii and iii
- ☒ i, ii and iii
- ☐ All of the factors

Correct

12. Question 12

Bone nitrogen content can be used to estimate the age of bones because

1 / 1 point

- ☐ the nitrogen 14 isotope changes.
- ☐ bones absorb nitrogen from the air.
- ☒ the proteins in bone gradually break down.
- ☐ microorganisms in the bones generate nitrogen.

Correct

13. Question 13

If you have type AB blood, then you have

1 / 1 point

- ☐ both anti-A and anti-B antibodies.
- ☐ anti-A antibodies.
- ☐ anti-B antibodies.
- ☒ neither set of antibodies.

Correct

14. Question 14

The Kastle-Meyer test can

1 / 1 point

- ☐ test for the presence of vegetables.
- ☒ indicate that a stain is likely to be blood.
- ☐ prove that a stain is blood.
- ☐ indicate blood type.

Correct

15. Question 15

The A, B and rhesus antigens are found

1 / 1 point

- ☐ on the antibodies.
- ☐ inside red blood cells.
- ☒ on the surface of red blood cells.
- ☐ on the surface of white blood cells.

Correct