BMAT Section 1 (Mock 1) Answers + Tips

1. **D**

- If five machines require 9 hours to complete a large order, one machine will require '5x9 = 45 hours' to complete a large order.
- Therefore, six machines will require '45÷6 = 7.5 hours'.
- This is 1 hour 30 minutes, or 90 minutes less than if five machines were used.

2. **D**

This question is complicated by the fact that three different time zones are used; for simplicity, all time zones can be converted to the starting (British) time. Thus we get:

- DEPART LONDON (HEATHROW): 1700 on Tuesday, 15th July
- DEPART DUBAI: 1010 on Wednesday, 16th July
- ARRIVE DHAKA: 1445 on Wednesday, 16th July

Working back from the departure time in Dubai, we can take away the stopover time to get the arrival time in Dubai. 1010 – 10 hours 20 minutes gives us 2350 on the **previous day** (15th July); since the flight departed Heathrow at 1700, the flight time for the first flight was 6 hours 50 minutes.

Calculating the second flight time is now easy as there is no additional stopover: 1445 – 1010 = 4 hours 35 minutes.

Adding the two flight durations gives us a total of 11 hours 25 minutes.

3. **C**

A good way to think about a **conclusion** of an argument is that the correct statement makes sense as a concluding sentence if 'therefore' is put before it. Using this, we can see that:

➢ 'A' and 'D' are not conclusions, but reasons supporting the argument.
➢ 'E' is a conclusion that does not relate to the line of the argument.
➢ 'B' could be a supporting conclusion pointing to the virtues of keeping the cervical vaccination scheme, but it is 'C' that captures the main thrust of the argument – that the programme should be continued.
➢ If we think of 'C' as the conclusion, 'A' and 'D' fit neatly as supporting reasons.

4. **C**

Answering this question involves setting up simultaneous equations for each person's work. If the normal rate is x and the overtime rate is y:

James: 30x + 10y = 700
Henry: 20x + 5y = 425 → 40x + 10y = 850

- *Eliminating y produces the following:*

$$10x = 150,$$
$$x = 15.$$

- *Inserting this value of x into James' equation gives:*

$$(30 \times 15) + 10y = 700$$
$$450 + 10y = 700$$
$$10y = 250$$
$$y = 25$$

5. **D**

➢ An **assumption** is always unstated; therefore A and B cannot be correct.
➢ Option C is not stated however neither is it implied by the text.
➢ Option D is correct because this unstated assumption provides a link between the two stated points in the argument.
➢ Option E is also unstated, however no suggestion of this assumption is made in the text; regulations are said to reduce future crises, not shadow banks directly.

6. **E**

- The company charges a £50 flat fee per minibus plus £2 per passenger.
- Joe needs two minibuses for these 44 passengers, and hence pays £100 in minibus charges.
- He also needs to pay £2 per passenger, but Darren can drive the second minibus so is not charged as a passenger.
- Therefore he pays a total of '£100 (two minibuses) + £86 (43 passengers) = £186'.

7. **D**

The **flaw** here is called a false dichotomy, where the solution to a particular issue (taking good photographs) is restricted to limited options (expensive camera equipment or photography lessons). This makes it seem as if there are no other ways of producing good photographs other than the two options offered. If we realise these other options that are available for taking good photographs, the argument falls down.

- 'A' may be true, but does not ruin the argument because, for instance, buying an expensive camera will not get rid of these problems, and it will still be an inappropriate solution for most people.
- 'B' is incorrect because there is never a generalisation about all photographers as it mentions 'many people' and 'most people', which is not all-encompassing.
- 'C' could even be thought of as a valid conflation because expensive camera equipment tends to be sophisticated, but the argument does not fall down because of this.
- 'E' is in a similar vein to the correct answer, but it talks about the problems rather than the solutions, and in any case the passage does not restrict the problems to the two offered as it talks about these as the 'most common problems'.

8. **E**

- 'A' is incorrect as no comment is made about children of other backgrounds.
- 'B' is incorrect as there may be high numbers of asthmatics who do not experience breathing difficulties; the statistic does not confirm or refute this.
- 'C' is incorrect as the effect of any changes cannot be inferred from this statistic as Asthma has not reliably been proven as the cause of these breathing difficulties – there may be some factor which causes both problems.
- Therefore 'E' is the correct choice.

9. **C**

This relatively straightforward question is made more difficult by complicated question wording:

- The total number of animals estimated (so excluding the 'Blue Spruce Tree' and 'Blackcurrant Bush') is:

$$2,000 + 1,400 + 1,200 + 14,000 + 250 = 18,850$$

- With there being 5 animal species, the mean number of organisms can be calculated by:

$$18,850/5 = 3,770$$

10. **E**

- Firstly, it is told to us at the start that only the ecologist's favourite animals are listed in the table, so the total number of animals in the forest cannot be determined.
- Secondly, the 'sample' of honey bees falls to zero but we do not know what happens to the 'population' of honey bees.
- The population may decrease by 2,500 due to the loss of the sample bees but this is not made clear to us and in any case the value for this scenario is not included in the response options.
- Therefore we cannot tell what happens to the total number of animals and hence the answer is E.