



BMAT Mini-Mock Exam 1

SECTION 1

Aptitude and Skills

17 Minutes

Instructions to Candidates

Answer every question. Points are awarded for correct answers only. There are no penalties for incorrect answers.

All questions are worth one mark.

Speed as well as accuracy is important in this section - you are advised to work quickly, or you may not finish the paper.

Use the answer sheet provided for all working and answers. Please do not write on this paper.

Calculators are NOT permitted during any portion of the test.

This paper consists of 5 printed pages and 1 blank page

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1. In a textile factory, there are five similar textile machines, which can complete a large order in 9 hours. The company decides to invest in another of these textile machines in order to complete large orders in a shorter amount of time.

Assuming the new machine runs at the same rate as the current machines, how many minutes will be saved on completing a large order?

- a) 66
- b) 72
- c) 84
- d) 90
- e) 450

2. Below is an itinerary for a flight from London to Dhaka. It involves a stopover in Dubai, lasting 10 hours 20 minutes. All times are local times. Dhaka is 5 hours ahead of London, and Dubai is 2 hours behind Dhaka.

DEPART LONDON (HEATHROW): 1700 on Tuesday, 15th July

DEPART DUBAI: 1310 on Wednesday, 16th July

ARRIVE DHAKA: 1945 on Wednesday, 16th July

What is the total time spent in the air?

- a) 6 hours 50 minutes
- b) 7 hours
- c) 9 hours 50 minutes
- d) 11 hours 25 minutes
- e) 11 hours 35 minutes

3. Although it costs the taxpayer over £100 million a year, the cervical cancer vaccination programme for teenage girls should be continued. Many girls will be saved from developing a serious illness in later life. Furthermore, a survey has shown that the majority of teenage girls are happy to be given the vaccination

Which of the following statements best fit the main conclusion of the passage?

- a) Many girls will be saved from developing a serious illness later in life.
- b) The benefit of the vaccination programme outweighs the cost.
- c) The cervical cancer vaccination programme for teenage girls should be continued.
- d) The majority of parents would be happy with their daughters being given the vaccination.
- e) The cost of the vaccination programme should be cheaper.

4. James and Henry work in a restaurant. In June, James worked 30 sessions at the normal rate and 10 sessions at the overtime rate. Henry worked 20 sessions at the normal rate and 5 sessions at the overtime rate. At the end of June, James had earned £700, while Henry had earned £425.

What is the overtime rate per session?

- a) £35
- b) £30
- c) £25
- d) £20
- e) £15

5. The 2008 financial crisis has precipitated the rise of shadow banking services in the UK. The Financial Conduct Authority implemented a plethora of new regulations on conventional banks to ensure that similar crises did not arise in the future. In light of these new regulations, 'bank like' institutions, otherwise known as shadow banks, began to increase in size and number. These firms, which include hedge funds, insurance companies, private equity firms, and any company that engages in bank like activity without being registered as a bank, are now responsible for a large proportion of the world's financial services revenue. Shadow banks are not subject to the same tight regulations as conventional banks, and so are able to operate with a greater degree of freedom.

Which of the following is an underlying assumption of the above argument?

- a) The 2008 financial crisis has precipitated the rise of shadow banking services in the UK.
- b) Shadow banks are not subject to the same regulations as conventional banks, and so are able to operate with a greater degree of freedom.
- c) Shadow banks are less dangerous to society than conventional banks.
- d) The increased freedom afforded to shadow banks has helped them to increase in size and number.
- e) The rise of shadow banking will reduce the likelihood of a future financial crisis.

6. The charging scheme for a minibus hire company consists of a one off fee for the hiring of the bus, plus an additional fee for every passenger that travels on the bus. The maximum capacity of each bus is 25 passengers. Joe pays £58 to take all four of his cousins to Devon by minibus and £178 to take all of his 40 work colleagues to Cornwall, including his colleague Darren who can also drive a minibus. How much would it cost Joe to take all of his work colleagues AND cousins to Portsmouth? (*N.B. drivers are not classed as passengers*).

- a) £236
- b) £138
- c) £136
- d) £188
- e) £186

7. Many people are willing to spend thousands of pounds on sophisticated camera equipment but in most cases expensive digital cameras are pointless. The most common problems with photographs are bad composition and poor timing, and a new camera will not improve your composition or help you to be in the right place at the right time. Instead of expensive camera equipment, most people should spend their money on photography lessons.

Which of the following is the best statement of the flaw in the above argument?

- a) Bad composition and poor timing are not the only causes of bad photographs.
- b) It is generalising from bad photographers to all photographers.
- c) The argument conflates expense and sophistication.
- d) The argument restricts the options to expensive camera equipment or photography lessons.
- e) There are other problems other than bad composition and poor timing.

8. A recent NHS report found that 95% of British Asian children attending A&E with breathing difficulties had previously been diagnosed with Asthma. Which of the following can be reliably inferred from this statistic?

- a) British Asian children with breathing difficulties are more likely to suffer from Asthma than children of other ethnic backgrounds.
- b) British Asian children with Asthma are highly likely to attend A&E with breathing difficulties at some point.
- c) Better treatment of Asthma within the British Asian community would reduce A&E visits for breathing difficulties.
- d) All of the above
- e) None of the above

Questions 9-10 refer to the following information

An ecologist is sampling a forest to determine its levels of biodiversity and counts the total number of living organisms in the area of the forest that he explores. He uses his sample counts to estimate the population numbers for some of his favourite organisms.

Organism	Sample Count	Population Estimate
Grizzly Bear	2	2,000
Garter Snake	25	1,400
Blue Spruce Tree	680	6,800
Red Fox	12	1,200
Blackcurrant Bush	100	8,000
Honey Bee	2,500	14,000
Holiday Armadillo	1	250

9. What is the expected mean number of organisms per animal species that he has sampled in the forest as determined by his calculations?
- a) 474
 - b) 508
 - c) 3770
 - d) 4807
 - e) 867
10. The ecologist had inadvertently used a toxic chemical to mark every Honey Bee sampled so the sample of Honey Bees falls to zero and as a result the populations of the remaining animals increase by 10%. What is the total number of animals in the forest now?
- a) 5335
 - b) 21615
 - c) 44
 - d) 18000
 - e) None of the above