Sample Questions

The following multiple-choice units are intended to provide an idea of the style of HPAT-Ulster questions. These questions are similar in structure and type to questions that may appear in HPAT-Ulster. Note, however, that they are examples only and are not intended to be fully representative of HPAT-Ulster content or difficulty.

Sample writing tasks follow the multiple-choice sections.

**HPAT-Ulster Components**
- Critical Reasoning  pages 3 – 5
- Interpersonal Understanding  pages 6 – 7
- Written Communication  pages 10 – 12
Questions 1 – 3

Michael is growing hibiscus plants. He is told they will grow better if he gives them some lime and fertiliser. He considers the following set-ups (I – V).

1. Which set-up would be best to use with set-up II to see whether lime is good for growth?
   A  I
   B  III
   C  IV
   D  V

2. In order to best show the effect on growth of water alone, a plant with no water, no lime and no fertiliser should be compared with set-up(s)
   A  I
   B  II and III.
   C  IV.
   D  V.

3. How could the effect of fertiliser best be shown?
   A  compare I and II
   B  compare I and III
   C  compare II and III
   D  compare III and IV
Questions 4 – 7

Our solar system is composed of nine* planets that travel around a star we call the Sun. Figure 1 indicates the relative sizes of the planets and their order from the Sun. Table 1 provides further information about the planets (based on information known around the year 2000).

- An orbit is the path a planet takes as it travels completely around the Sun.
- The length of a year for a planet is the time it takes for the planet to travel once around the Sun.
- The length of a day for a planet is the time it takes to spin around once on its axis.

![Figure 1: Planetary orbits and relative sizes](image)

### Table 1

<table>
<thead>
<tr>
<th>Planet</th>
<th>Mean distance from the Sun (× 1,000,000 km)</th>
<th>Diameter (km)</th>
<th>Number of moons</th>
<th>Average orbital speed (km/s)</th>
<th>Time to orbit the Sun (Earth years)</th>
<th>Length of day (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>58</td>
<td>4,880</td>
<td>0</td>
<td>48.0</td>
<td>0.24</td>
<td>1416</td>
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<tr>
<td>Venus</td>
<td>108</td>
<td>12,100</td>
<td>0</td>
<td>35.0</td>
<td>0.62</td>
<td>5832</td>
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<tr>
<td>Earth</td>
<td>150</td>
<td>12,760</td>
<td>1</td>
<td>30.0</td>
<td>1.00</td>
<td>24</td>
</tr>
<tr>
<td>Mars</td>
<td>228</td>
<td>6,800</td>
<td>2</td>
<td>24.0</td>
<td>1.88</td>
<td>24.6</td>
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<tr>
<td>Jupiter</td>
<td>778</td>
<td>143,800</td>
<td>16</td>
<td>13.0</td>
<td>11.86</td>
<td>9.84</td>
</tr>
<tr>
<td>Saturn</td>
<td>1,427</td>
<td>120,000</td>
<td>18</td>
<td>10.0</td>
<td>29.46</td>
<td>10.23</td>
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<tr>
<td>Uranus</td>
<td>2,870</td>
<td>52,300</td>
<td>15</td>
<td>6.8</td>
<td>84.01</td>
<td>17.24</td>
</tr>
<tr>
<td>Neptune</td>
<td>4,497</td>
<td>49,500</td>
<td>8</td>
<td>5.4</td>
<td>164.79</td>
<td>18.4</td>
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<tr>
<td>Pluto</td>
<td>5,900</td>
<td>3,000</td>
<td>1</td>
<td>4.7</td>
<td>247.70</td>
<td>153.4</td>
</tr>
</tbody>
</table>

* recently Pluto has been downgraded to a minor planet.
4 Which one of the following statements is supported by the data?
   A Day length increases as distance from the sun decreases.
   B Orbital speed increases as year length decreases.
   C Diameter increases as orbital speed increases.
   D Year length decreases as diameter increases.

5 Which one of the following statements is best supported by the data?
   A Planets further from the sun travel faster and therefore have shorter days.
   B Planets closer to the sun travel faster and therefore have shorter days.
   C Planets with longer days travel slower and are closer to the sun.
   D Day length is unrelated to average orbital speed and distance from the sun.

6 Which one of the following is the best estimate of the number of Neptune days that equal ten Earth days?
   A 4
   B 8
   C 12
   D 16

7 Which one of the following is the best estimate of the number of Saturn days in an Earth year?
   A 1600
   B 800
   C 400
   D 100
Section 2

UNIT 3

Questions 8 – 14

In this passage the narrator describes a minor car accident in which two young men in another car damaged his side mirror, swore at him and drove on.

As I motored on I saw the two lads up ahead on the hard shoulder of the road, standing looking at the damage to their car.

I pulled over, parked and got out. I suppose I was hoping to get their number for insurance purposes. As I was ‘casually’ examining my twisted side mirror, I noted out of the corner of my eye one of the lads walking towards me, with his can of lager. He looked tense; perhaps he thought I was going to create a scene. I turned side on, as casually as I could, and said, still looking as if I was examining my mirror, ‘You OK?’

He said, surprised, ‘Yeah.’
‘I’m glad,’ I replied. ‘Your car OK?’
‘Yeah.’ Still surprised, even wary.
‘My mirror is jammed.’ I didn’t raise my voice or look up, even though they were to blame for having damaged my mirror.

He looked at the mirror — ‘It’s jammed,’ he commented.
‘Course it’s bleedin’ jammed!’ I felt like saying. I didn’t. A bit of ‘partial agreement’, I thought. ‘You’re not wrong, it’s jammed.’

‘You can fix that easy,’ he said.
‘Can you?’ I wasn’t too sure.

By this time the other lad had come over to see what was happening. I said ‘Hi’. He grunted something. I added ‘I’m checking my mirror…’

He also noted the ‘bleedin’ obvious’. ‘It’s jammed.’

The other lad chipped in, ‘They’re on a spring — you just pull it out and it goes back in the housing right. I can fix it if you like.’

He pulled at the mirror, groaned and grunted. When he finally let go, it clanked back into place.

‘Hey, I fixed it!’ He seemed surprised and pleased.

8 The narrator seems to have been most concerned about

A the damage to his mirror.
B hiding his fear of the two younger men.
C avoiding a potentially heated confrontation.
D making the two younger men feel guilty about what they did.

9 The younger man is ‘surprised’ (line 8) because the narrator

A stopped to talk to him.
B expressed concern about his welfare.
C was more aggressive than he expected.
D seemed so concerned about the damage to the mirror.

10 The effect of the narrator’s actions on the young men was to

A disarm them.
B confuse them.
C intimidate them.
D embarrass them.
11  Which of the following is a key strategy used by the narrator in this situation?

A  He disagreed with everything the young men said.
B  He avoided blaming the young men for the accident.
C  He tried to humiliate the young men into assisting him.
D  He apologised first in order to remove the tension from the situation.

UNIT 4

Questions 12 – 14

The following is a phone conversation between a female doctor and a male patient.

Patient  Doctor, I’m still not feeling any better and I won’t be able to go to work today either. Is it OK if I come by at lunchtime and pick up another sick certificate?
Doctor  I’m surprised you don’t feel any better. I would have expected the symptoms to have almost gone by now.
Patient  They have a bit, but I think another day should help me get fully right.
Doctor  I think it would be best if you make an appointment to come in and see me.
Patient  But why? It’s exactly the same problem as the other day, I just need another certificate.
Doctor  I appreciate that, but I’m not prepared to write you a certificate without a consultation.
Patient  But I’ve heard about other doctors who are prepared to do it.
Doctor  I can’t speak for them, I can only tell you how I practise.

12  Which of the following best describes the doctor’s manner in this situation?

A  compliant  
B  evasive  
C  patronising  
D  resolved

13  As a result of the doctor’s responses, the patient would be justified in feeling

A  mistreated and neglected by the doctor.  
B  frustrated but clear about the doctor’s expectations.  
C  optimistic about getting the certificate without a consultation.  
D  uncertain and confused about the doctor’s position on the matter.

14  In her final comment, the doctor’s main intention is to

A  encourage the patient to go and see a different doctor.  
B  appease the patient by accepting the truth of his statement.  
C  appear more honourable by undermining the practice of other doctors.  
D  avoid criticising other doctors while maintaining her position on the issue.
Consider the material provided and develop a fluently written piece of prose that integrates the ideas and information. Your response will be judged on:

- the quality of thought and understanding applied
- the use of language to express ideas and information.

CRIME IN ENGLAND AND WALES: QUARTERLY UPDATE TO JUNE 2003

MAIN POINTS
- Overall crime as measured by the British Crime Survey (BCS) has continued to fall.
- The risk of being a victim of crime, at 29.9%, is around the same as it was in 1981.
- There were 5% fewer crimes of violence reported by BCS respondents in the 12 months to June 2003, compared with a year earlier.

Risk factors for serious and/or persistent offending (males)

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<th>Risk factor</th>
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<th>18-30 years old</th>
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<td>Uses drugs in the last year</td>
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<td></td>
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<tr>
<td>Uses drugs at least once a month</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Drinks alcohol at least five times a week</td>
<td>x</td>
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<tr>
<td>Disaffected with school</td>
<td></td>
<td>x</td>
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<tr>
<td>Excluded from school (temporary or permanent)</td>
<td>x</td>
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<td>Truants from school at least once each month</td>
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<td>x</td>
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<tr>
<td>No qualifications on leaving school</td>
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<td>Delinquent friends or acquaintances</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Parents rarely or never know whereabouts</td>
<td></td>
<td>x</td>
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<tr>
<td>Hangs around in public places</td>
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<td>x</td>
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Section 3

Perceived effectiveness in combatting crime (2002)

We would like to know how good a job each of these groups is doing. How good a job are (judges; police; etc) doing to combat crime?

COMMUNITY SUGGESTIONS TO REDUCE CRIME IN GREAT BRITAIN, 2001

Categories selected (%)
- Better parenting: 55%
- More police on the beat: 53%
- Better discipline in schools: 49%
- Constructive activities for the young: 40%
- Introduction of a national identity card: 28%
- Programmes to change behaviour: 21%
- Capital punishment for murder: 20%
- More offenders in prison: 8%
- Other: 1%
- None of these: 1%
- Don't know: 1%

Which of the following solutions will help to reduce crime in Great Britain?

Persons found guilty of, or cautioned for, indictable* offences per 100,000 population by age group 2001

*An indictable offence is a serious criminal offence that requires trial by jury in a Crown Court.
TASK 2

Consider the following comments and develop a piece of writing in response to one or more of them.

Your response will be judged on:

- the quality of your thoughts, ideas and opinions
- the use of language to express and support your point of view.

It seems to me that people have vast potential. Most people can do extraordinary things if they have the confidence or take the risks. Yet most people don’t. They sit in front of the telly and treat life as if it goes on forever.

*Philip Adams*

Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence.

*Helen Keller*

Attempt easy tasks as if they were difficult, and difficult as if they were easy; in the one case that confidence may not fall asleep, in the other that it may not be dismayed.

*Baltasar Gracian*
## ANSWERS

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