

# OCR

Oxford Cambridge and RSA

## Monday 6 June 2016 – Afternoon

### AS GCE GENERAL STUDIES

F732/01 The Scientific Domain

Candidates answer on the Question Paper.

**OCR supplied materials:**

None

**Other materials required:**

- Scientific calculator

**Duration:** 1 hour



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|-----------------------|--|----------------------|--|
| Candidate<br>forename |  | Candidate<br>surname |  |
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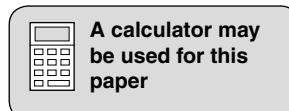
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| Centre number |  |  |  |  |  | Candidate number |  |  |  |  |
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#### INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions in Section A and **one** question in Section B.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the bar codes.

#### INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- You are advised to divide your time equally between Sections A and B.
- **The quality of your written communication will be assessed, including clarity of expression, structure of arguments, presentation of ideas, grammar, punctuation and spelling.**
- This document consists of **12** pages. Any blank pages are indicated.



SECTION A

Answer **all** of the questions in this section.

- 1 **Table 1** below shows an extract from a train timetable between London Euston and Manchester Piccadilly.

**Table 1**

|                              |       |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|-------|
| <b>London Euston</b>         | 12:40 | 13:00 | 13:20 | 13:40 | 14:00 | 14:20 |
| Milton Keynes Central        | –     | –     | 13:50 | –     | –     | 14:50 |
| Stoke-on-Trent               | –     | 14:25 | 14:48 | –     | 15:25 | 15:48 |
| Macclesfield                 | –     | 14:41 | –     | –     | 15:41 | –     |
| Crewe                        | 14:11 | –     | –     | 15:11 | –     | –     |
| Wilmslow                     | 14:27 | –     | –     | 15:27 | –     | –     |
| Stockport                    | 14:37 | 14:56 | 15:17 | 15:37 | 15:56 | 16:17 |
| <b>Manchester Piccadilly</b> | 14:49 | 15:07 | 15:28 | 15:49 | 16:07 | 16:28 |

- (a) (i) At what time does the first train from Milton Keynes Central arrive at Manchester Piccadilly?

..... [1]

- (ii) How long does the journey take?

..... [1]

- (iii) A student needs to travel from London to arrive at Keele University by 4.30pm. He will need to take a train from London Euston to Stoke-on-Trent. He will then need to take a bus to Keele University. It takes five minutes to walk from the railway station to the bus. Buses leave Stoke-on-Trent railway station to Keele University at 10, 20 and 50 minutes past each hour and this journey takes 40 minutes.

Using this information and Table 1 give the precise travel details of the student's journey. It should start with the latest train that he can catch from London Euston, and end with the time he will arrive at Keele University.

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 .....  
 ..... [2]

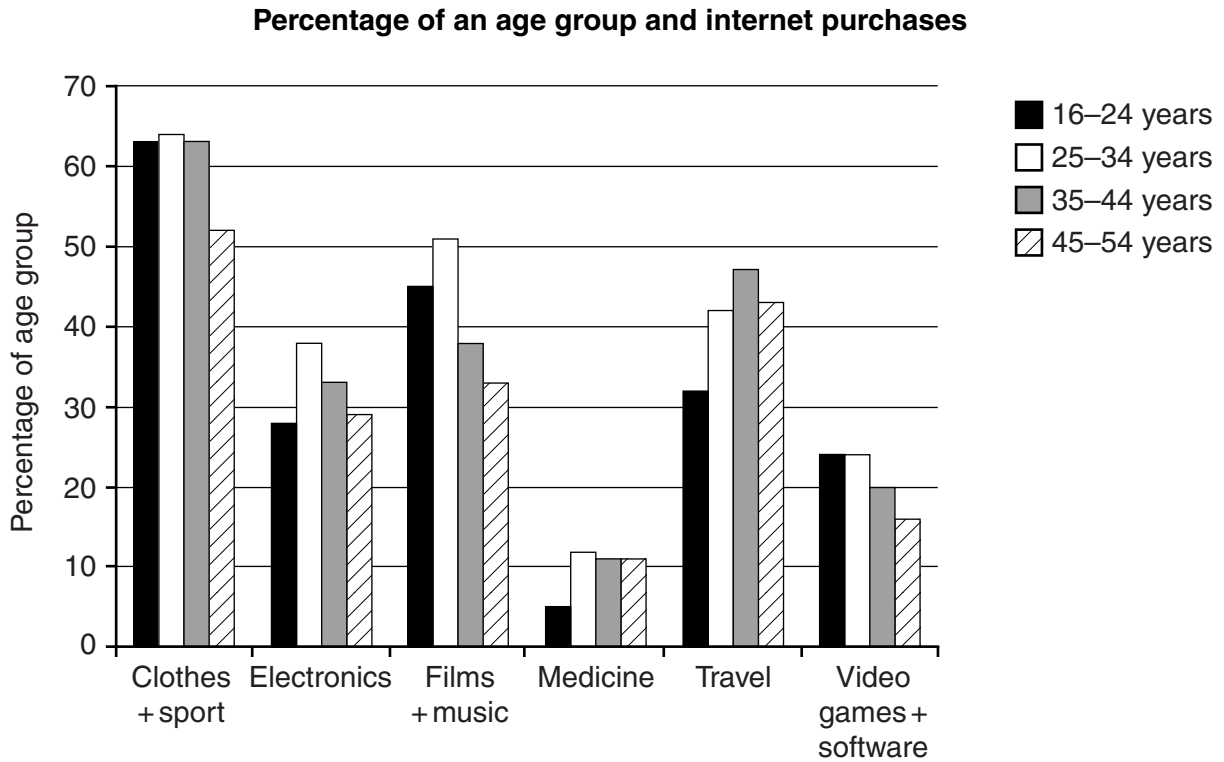
(iv) The distance between two cities by train is 350 km. The journey takes 2 hours 15 minutes. What is the average speed of the train?

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..... [3]

(b) A survey has been commissioned to gather the views of passengers about the punctuality of train services to and from London Euston. This information will be collected between 8.30 am and 9.30 am on a weekday. Outline **three** reasons why the survey might prove to be unreliable.

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..... [9]

2 **Figure 1** shows the percentage of four different age groups and their purchases over the internet in 2014.



**Figure 1**

(a) (i) Name **two** categories of internet purchases that 10% more of the 25–34 age group bought compared to the 16–24 age group.

.....

.....

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..... [2]

(ii) State **three** differences between internet purchases for Clothes and sport and Films and music as shown by the graph.

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..... [3]



## SECTION B

Answer **one** question from this section.  
*Your answer should be in continuous prose.*

Answer in the space provided on pages 8 to 11.

- 3 The following information concerns the process of scientific investigation:



- ask a question
- read background information
- form a hypothesis
- conduct experiments
- analyse and communicate results.

Assess the reliability of this model for scientific investigation.  
Use **one** example to support your answer.

[30]

- 4 Why are some forecasts successful when others are unreliable?

[30]

5 In the future, there may be more funding available for research into the following different areas:

- genetically modified food
- mental health problems
- organ transplants.

Choose **one** of these areas. Outline and discuss why your chosen area should have an increase in funding compared to the other areas. **[30]**

Write the number of the question answered in the margin.

A vertical margin line is positioned on the left side of the page. To the right of this line, there are 25 horizontal dotted lines extending across the page, providing a grid for marking answers.



A large rectangular area for writing, defined by a solid vertical line on the left and horizontal dotted lines. The area is currently blank.

This image shows a blank sheet of lined paper, likely from a notebook or a worksheet. The page is oriented vertically and features a solid vertical line on the left side, creating a margin. The rest of the page is filled with horizontal ruling lines, which are spaced evenly and extend across the width of the page. The lines are thin and light gray, typical of standard notebook paper. There is no text or other content on the page.

A large area of the page is filled with horizontal dotted lines, providing space for writing answers. A solid vertical line runs down the left side of this area, approximately one-tenth of the way from the left edge of the page.

**END OF QUESTION PAPER**

**ADDITIONAL ANSWER SPACE**

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

A large rectangular area with a vertical line on the left side and horizontal dotted lines across the page, providing space for writing answers.



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