

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
AS GCE**

F732/01

GENERAL STUDIES

The Scientific Domain

MONDAY 6 JUNE 2016: Afternoon

**DURATION: 1 hour
plus your additional time allowance**

MODIFIED ENLARGED

Candidate forename						Candidate surname				
Centre number						Candidate number				

Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:
None

OTHER MATERIALS REQUIRED:
Scientific calculator

A calculator may be used for this paper
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READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the boxes on the first page. 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.

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.**

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

LONDON EUSTON	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
MANCHESTER PICCADILLY	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 4.30 pm. 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.

_____ **[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?**

[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.

[9]

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

(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.

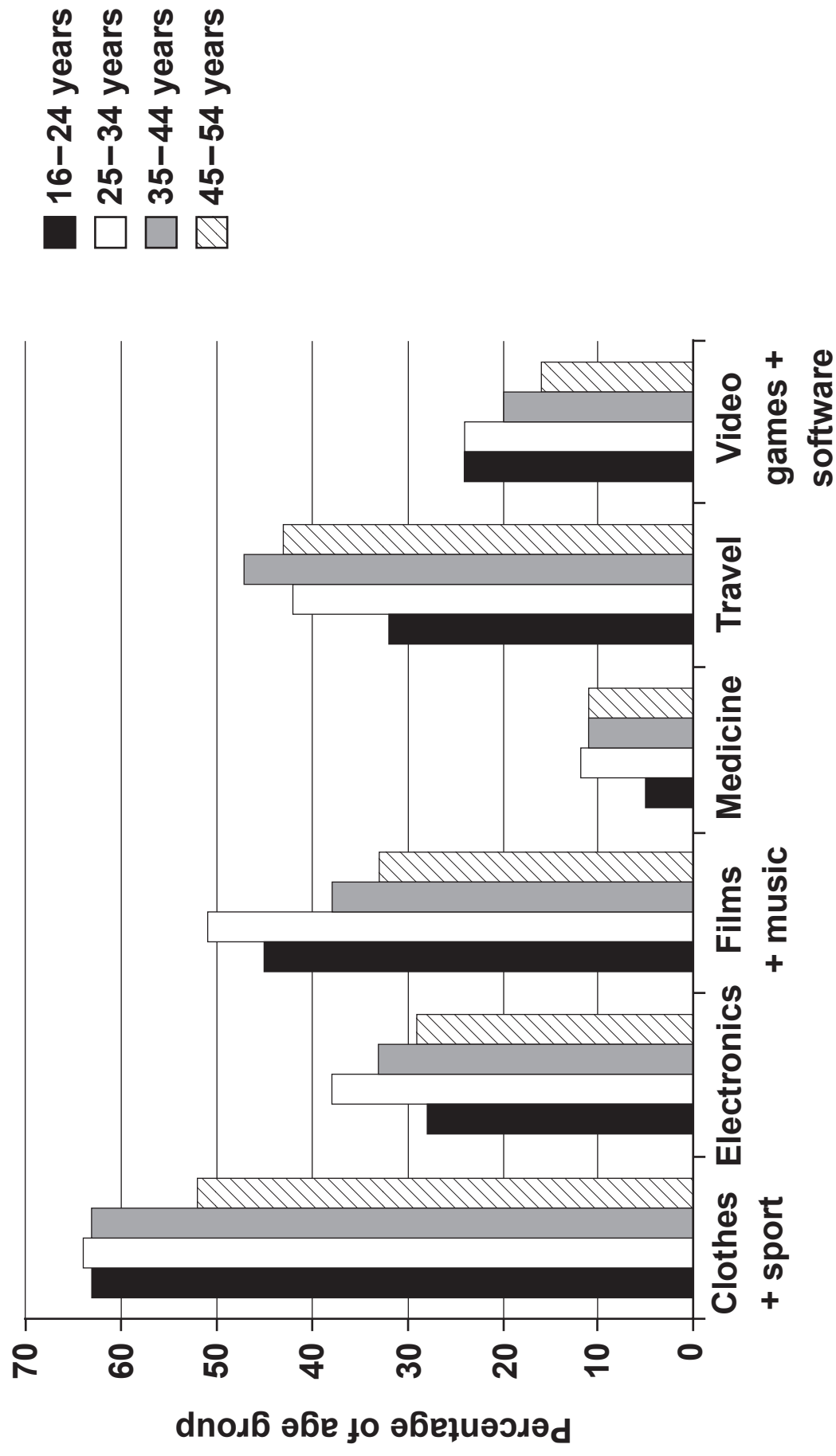
[2]

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

[3]

FIGURE 1

Percentage of an age group and internet purchases



[9]

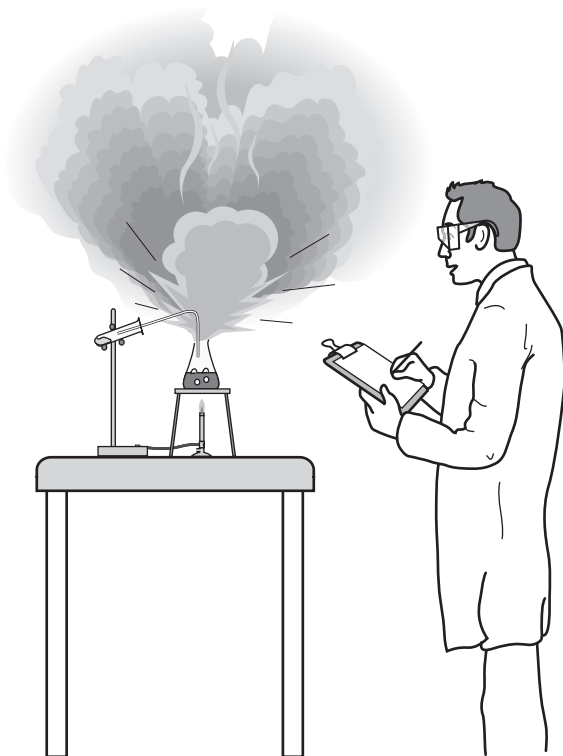
[illegible]

SECTION B

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

Answer in the space provided on pages 15 to 21.

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



**The scientist says
“That didn’t work
as expected, but it’s
an important finding
and I need to report
it honestly.”**

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.

[illegible]

[illegible]

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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).

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