



Oxford Cambridge and RSA

**Wednesday 8 June 2016 – Morning**

**AS GCE/Level 3 Certificate**

**QUANTITATIVE METHODS (MEI)**

**G244/01** Introduction to Quantitative Methods (IQM)

**Insert**

**Duration:** 1 hour 30 minutes



**INFORMATION FOR CANDIDATES**

- This Insert contains a copy of the pre-release material for use with the Question Paper.
- This document consists of **4** pages. Any blank pages are indicated.

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This table shows the changes in average speed on some of Cambridge's commuter routes from 2008 to 2014.

CHANGE IN AVERAGE SPEED FROM 2008–2014							
Route	Dec 2008 avg speed	Dec 2014 avg speed	Change in speed	Route	Dec 2008 avg speed	Dec 2014 avg speed	Change in speed
<b>A10 northbound</b>	38.2	39.3	1.1	<b>A1303 eastbound</b>	23	18.9	-4.1
<b>A10 southbound</b>	34.9	33.4	-1.5	<b>A1303 westbound</b>	23.8	22.4	-1.4
<b>A1096 northbound</b>	31.8	29.7	-2.1	<b>A1304 northbound</b>	48.7	47.2	-1.5
<b>A1096 southbound</b>	25.8	23.4	-2.4	<b>A1304 southbound</b>	48.1	46.9	-1.2
<b>A1123 eastbound</b>	33.6	31.8	-1.8	<b>A1307 eastbound</b>	29.5	28.8	-0.7
<b>A1123 westbound</b>	31.7	32.4	0.7	<b>A1307 westbound</b>	30.7	28.9	-1.8
<b>A1134 (Cambridge ring road) northbound</b>	18.8	17.4	-1.4	<b>A1309 northbound</b>	12	14.6	2.6
<b>A1134 (Cambridge ring road) southbound</b>	13.1	14.3	1.2	<b>A1309 southbound</b>	16.8	16.2	-0.6
<b>A1198 northbound</b>	43.2	42.6	-0.6	<b>A142 eastbound</b>	39.4	37.9	-1.5
<b>A1198 southbound</b>	37.3	33.3	-4	<b>A142 westbound</b>	40.9	39.6	-1.3
<b>A1301 northbound</b>	28	19.3	-8.7	<b>A505 eastbound</b>	38.9	36.8	-2.1
<b>A1301 southbound</b>	35.5	28.5	-7	<b>A505 westbound</b>	42.7	38.1	-4.6
				<b>A603 eastbound</b>	25.1	20.8	-4.3
				<b>A603 westbound</b>	23.7	26.7	3
All speeds are in miles per hour							

**Information about the first appearance of flowers from Mail Online News.**

**(i) They're blooming early! Daffodils and dianthus flowering months early due to unusually warm weather**

<http://www.dailymail.co.uk/news/article-2085206/Theyre-blooming-early-Snowdrops-daffo.html>. Item removed due to third party copyright restrictions.

**(ii) Further information**

Information about the dates of first appearance of various flowers may be found on the Woodland Trust website.

Typical stopping distances reproduced from the Highway Code. It shows typical stopping distances for cars travelling at different speeds.

### Typical Stopping Distances

**20 mph** (32 km/h)  = 12 metres (40 feet)  
or three car lengths

**30 mph** (48 km/h)  = 23 metres (75 feet)  
or six car lengths

**40 mph** (64 km/h)  = 36 metres (118 feet)  
or nine car lengths

**50 mph** (80 km/h)  = 53 metres (175 feet)  
or thirteen car lengths

**60 mph** (96 km/h)  = 73 metres (240 feet)  
or eighteen car lengths

**70 mph** (112 km/h)  = 96 metres (315 feet)  
or twenty-four car lengths

The distances shown are a general guide. The distance will depend on your attention (thinking distance), the road surface, the weather conditions and the condition of your vehicle at the time

Thinking Distance Braking Distance  
Average car length = 4 metres (13 feet)



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