



General Certificate of Secondary Education
2017

Centre Number

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Candidate Number

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Motor Vehicle and Road User Studies

Unit 1: Motor Vehicle and
Road User Theory

Foundation Tier

[GMV11]



MONDAY 15 MAY, AFTERNOON

TIME

1 hour 30 minutes, plus your additional time allowance.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

You must answer the questions in the spaces provided.

Do not write outside the boxed area on each page or on blank pages.

Complete in black ink only.

Answer **all** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in Questions **37** and **38**.

Section A

Answer **all** questions

1 The legal limit for a drink-driving offence is _____ μg of alcohol per 100 ml of breath. [1]

2 _____ is the term for a vehicle's wheels losing contact with the road because there is too much water on the road. [1]

3 Which **one** of the following is the odd one out?

Answer _____ [1]

Road Narrowing	Speed Cushions	Horizontal Deflections	Zebra Crossings	Speed Bumps
----------------	----------------	------------------------	-----------------	-------------

4 The sign in **Fig. 4.1** below means _____ . [1]



Fig. 4.1

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5 The arm signal in Fig. 5.1 below means: Stop, traffic is coming from

_____ .

[1]



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Fig. 5.1

6 Windscreen wipers are an example of _____ safety features in car design.

[1]

7 Mirror, _____ and manoeuvre (MSM) are essential actions of safe driving.

[1]

8 _____ vision allows the driver to see objects or movements to either side of the forward line of vision.

[1]

9 A part of the road which cannot be seen from the driving seat, even with the use of mirrors, is known as the _____ .

[1]

[Turn over

- 10 _____ crossings are button-operated. [1]
- 11 A _____ document is used to declare ownership of a vehicle that is legally "off the road". [1]
- 12 A seat belt exemption certificate can be obtained from your _____. [1]
- 13 In 1913, Henry _____ introduced the first assembly line for manufacturing motor vehicles. [1]
- 14 New vehicles can be bought with a _____, which will cover them against mechanical faults for a set period of time. [1]
- 15 The distance covered in one minute by a vehicle travelling at 60 mph is _____ . [1]
- 16 At the scene of an accident the first thing to do is to _____ . [1]
- 17 Inlet, transfer and exhaust are all types of _____ found on a two-stroke engine. [1]

18 The _____ changes 12 volts to 30 000 volts in the ignition system. [1]

19 Connecting rods connect the pistons to the _____ . [1]

20 The sump is part of the _____ system. [1]

Section B

Answer **all** questions

21 Explain briefly what a detour means.

_____ [1]

22 Explain briefly why you must not remove the helmet from a motorcyclist who has been involved in an accident.

_____ [1]

23 Who should you inform if there is a change in your medical condition or vision, which may make you unfit to drive?

_____ [1]

24 Write down **two** reasons why turning right from a side road onto a busy dual carriageway is always dangerous.

1. _____ [1]

2. _____ [1]

25 Name **two** actions a driver can take, while driving, to reduce excessive wear on the vehicle's tyres.

1. _____ [1]

2. _____ [1]



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(Questions continue overleaf)

26 (a) Write down the rule for using box junctions.

[1]

(b) Look at Fig. 26.1 below carefully.



Source: Chief examiner

Fig. 26.1

What is this box junction for?

[1]

(c) Look at Fig. 26.2 below carefully.



Source: Chief examiner

Fig. 26.2

Write down **one** reason why “keep clear” is used instead of a box junction.

[1]

(d) Look at **Fig. 26.3** below carefully.



Source: Chief examiner

Fig. 26.3

Write down **three** hazards for pedestrians or vehicles.

1. _____ [1]
2. _____ [1]
3. _____ [1]

27 (a) Write down **two** factors which would make a car expensive to insure.

1. _____ [1]

2. _____ [1]

(b) Write down **two** reasons why a driver might be considered a higher insurance risk.

1. _____ [1]

2. _____ [1]

(c) What does the term “no claims bonus” mean?

_____ [1]

[Turn over

28 (a) List **three** checks that can be carried out on the tyres of a vehicle.

- 1. _____ [1]
- 2. _____ [1]
- 3. _____ [1]



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Fig. 28.1

Fig. 28.1 shows a tyre tread pattern.

(b) Name the parts marked A.

_____ [1]

29 (a) Name **two** actions which the Highway Code advises when driving in fog.
Do not write about using fog lights in your answer.

1. _____ [1]

2. _____ [1]

(b) While driving, when should fog lamps be turned off?

_____ [1]

(c) Name **one** precaution you could take while driving in high winds.
Do not write about avoiding fallen trees and debris on the road in your answer.

_____ [1]

30 (a) Write down the meaning of each of the road signs shown in Fig. 30.1–30.6 below.

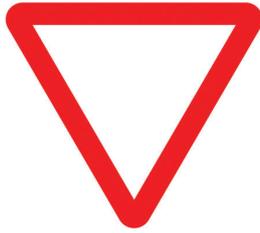


Fig. 30.1



Fig. 30.2

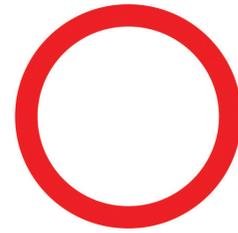


Fig. 30.3



Fig. 30.4



Fig. 30.5



Fig. 30.6

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Fig. 30.1 _____ [1]

Fig. 30.2 _____ [1]

Fig. 30.3 _____ [1]

Fig. 30.4 _____ [1]

Fig. 30.5 _____ [1]

Fig. 30.6 _____ [1]

(b) Look at **Fig. 30.7** below carefully.



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Fig. 30.7

How far is this motorway countdown marker in **Fig. 30.7** from the exit?

_____ [1]

(c) Look at **Fig. 30.8** below carefully.



Source: Chief examiner

Fig. 30.8

What hazard does the warning sign in **Fig. 30.8** above show?

_____ [1]

31 (a) In which country would you find an autostrada?

_____ [1]

(b) Name the first European country to develop motorways.

_____ [1]

(c) Write down **two** reasons for the reduction of vehicle pollution in recent years. Do not write about environmental protection in your answer.

1. _____ [1]

2. _____ [1]

(d) What did the motorist have to do because of the Locomotive Act 1865 (Red Flag Act)?

_____ [1]



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32 (a) How much petrol and oil would be needed to fill a 5 litre moped fuel tank if it is marked 24:1?

Petrol _____ litres [1]

Oil _____ litres [1]

(b) A customer is offered two ways of owning a new small car.

A. Deposit of £532 and 36 monthly payments of £275.

or

B. No deposit, 36 monthly payments of £180 and a final payment of £5,000.

Find the difference between **A** and **B**.

£ _____ [2]

(c) What is the meaning of each of the following abbreviations?

1. APR _____ [1]

2. ONO _____ [1]

3. HP _____ [1]

(d) Write down **three** methods of financing the purchase of a vehicle.

1. _____ [1]

2. _____ [1]

3. _____ [1]

33 (a) Write down the **three** legal obligations if you are involved in an accident which causes personal injury.

1. _____ [1]

2. _____ [1]

3. _____ [1]

(b) Describe briefly how you would treat an unconscious casualty.

_____ [1]

(c) When would you give mouth-to-mouth resuscitation (CPR)?

_____ [1]

[Turn over

34 (a) Write down **two** ways in which cyclists can protect themselves on the road.

1. _____ [1]

2. _____ [1]

(b) Write down **four** benefits of cycle lanes in a city.

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]

(c) Write down **three** actions you must not take while cycling on public roads.

1. _____ [1]

2. _____ [1]

3. _____ [1]



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35 (a) Match the **components A to D** below to their **systems 1–4**.

Components

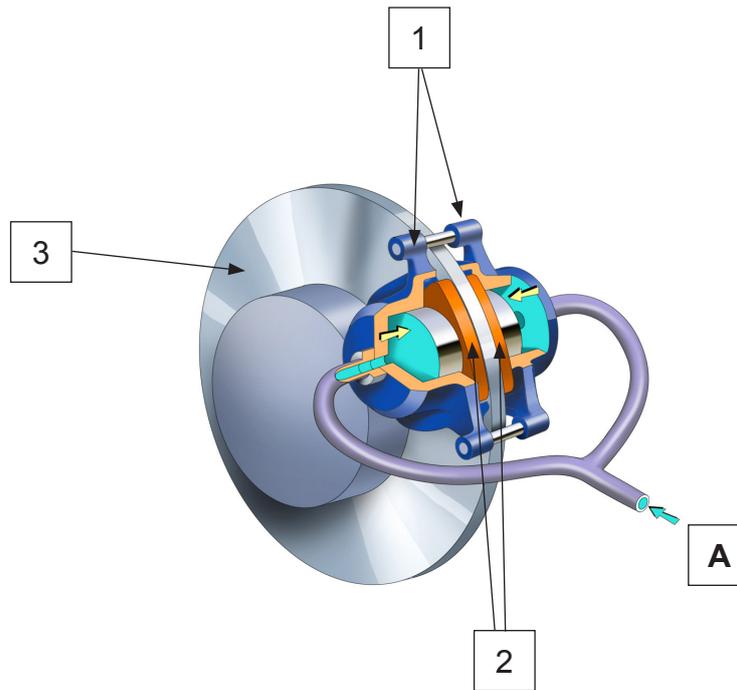
- A inlet manifold
- B clutch
- C master cylinder
- D solenoid

Systems

- 1. braking _____ [1]
- 2. transmisson _____ [1]
- 3. starting _____ [1]
- 4. fuel _____ [1]

(b) Name the **two** strokes of the four-stroke engine where the piston is at the bottom of the cylinder.

- 1. _____ [1]
- 2. _____ [1]



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Fig. 35.1

(c) Name the parts numbered 1–3 in **Fig. 35.1** above.

- 1. _____ [1]
- 2. _____ [1]
- 3. _____ [1]

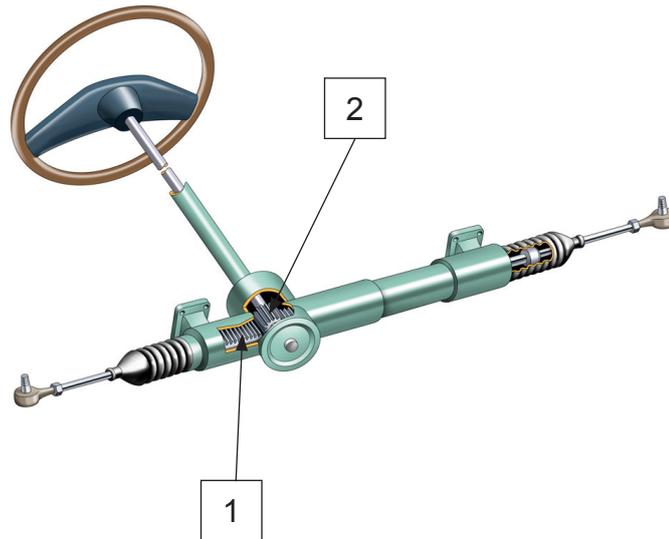
(d) Name the liquid which fills the tube marked **A** in **Fig. 35.1**.

_____ [1]

(e) Explain briefly why this fluid has to be changed every two years.

_____ [1]

36



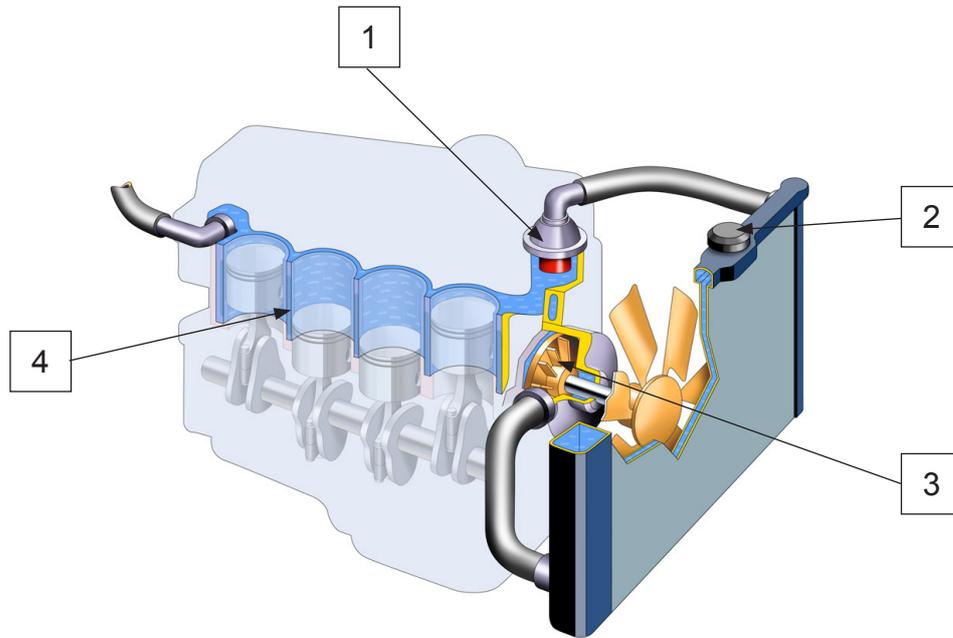
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Fig. 36.1

(a) Name the parts numbered 1–2 in **Fig. 36.1** above.

1. _____ [1]

2. _____ [1]



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Fig. 36.2

(b) Name the cooling system parts numbered 1–4 in **Fig. 36.2** above.

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]

(c) Explain briefly why it is important for an engine to be cooled.

_____ [1]

(d) Write down **one** other way in which engines can be cooled.

_____ [1]

[Turn over

37 Name three secondary safety features and explain how each feature helps to protect vehicle drivers and passengers in an accident.

Feature: _____ [1]

Explanation: _____
_____ [1]

Feature: _____ [1]

Explanation: _____
_____ [1]

Feature: _____ [1]

Explanation: _____
_____ [1]



SOURCES

Fig. 4.1: Highway Code Booklet
 Fig. 30.1: ... Highway Code Booklet
 Fig. 30.2: ... Highway Code Booklet
 Fig. 30.3: ... Highway Code Booklet
 Fig. 30.4: ... Highway Code Booklet
 Fig. 30.5: ... Highway Code Booklet
 Fig. 30.6: ... Highway Code Booklet
 Fig. 30.7: ... Highway Code Booklet

THIS IS THE END OF THE QUESTION PAPER

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For Examiner's use only	
Question Number	Marks
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Total Marks	
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 Examiner Number

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