



Rewarding Learning

General Certificate of Secondary Education
2015

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 11 MAY, AFTERNOON



GMV11

TIME

1 hour 30 minutes.

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 blue or black ink only. **Do not write with a gel pen.**

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 Question **39**.



Section AAnswer **all** questions.

- 1 Side impact bars, seat belts and crumple zones are three examples of _____ safety features found on a vehicle. [1]
- 2 On motorways, _____ reflective studs mark the edge of the slip road. [1]
- 3 The sign for a _____ route has a yellow background with a black border and black writing. [1]
- 4 Agricultural vehicles and motorcycles under 50cc are not permitted to drive on a _____ . [1]
- 5 Black ice is likely to occur on a road when it is _____ . [1]
- 6 A doctor on call drives a vehicle with a _____ flashing light. [1]
- 7 Double yellow lines along the edge of the carriageway represent _____ restrictions. [1]



8 A sign indicating a bus lane is rectangular with a _____ [1]
coloured background.

9 The sign in Fig. 9.1 below shows a warning for a _____ substance. [1]



Fig. 9.1

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10 Prohibitive road signs are mostly _____ in shape. [1]

11 A person applying for motor insurance is known as the _____. [1]

12 A vehicle's registration details are shown on a _____ form. [1]

13 A _____ is the name given to a road which diverts traffic away from a town centre to help reduce congestion and pollution. [1]

14 Tax, MOT, driving licence and insurance are all examples of _____ costs. [1]

[Turn over



15 Mr Rooney has the maximum 65% no claims discount on his vehicle insurance.

How much will he have to pay if the premium is £1,500?

_____ [1]

16 Breathing, _____ and consciousness are referred to as the “BBC” of first aid. [1]

17 The alternator is part of the _____ system. [1]

18 Leaf springs are part of the _____ suspension system. [1]

19 The gear box is part of the _____ system. [1]



20 The diagram in Fig. 20.1 below is part of the _____ system.



Fig. 20.1

[1]

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Section B

Answer **all** questions.

21 Give **one** reason why making a right turn is dangerous.

_____ [1]

22 Describe **one** situation where an unauthorised person may stop and direct traffic.

_____ [1]

23 Suggest **one** situation when a motorist should not proceed at a green traffic light.

_____ [1]

24 (a) Name **one** vehicle which must use dipped headlights, even during daylight.

_____ [1]

(b) Apart from at night or in adverse weather, when should a driver drive at a speed lower than the stated speed limit?

_____ [2]



25 (a) The legal limit for alcohol in the blood is _____ milligrams per 100 ml. [1]

(b) Name **one** adverse effect excess alcohol has on driving ability.
_____ [1]

(c) Name **two** consequences of being convicted of a drink driving offence.

1. _____ [1]

2. _____ [1]

(d) Name **two** ways in which you can make sure your car is mechanically fit for use on the road.

1. _____ [1]

2. _____ [1]

26 (a) Name **two** ways in which cyclists can make themselves safe on the road.

1. _____ [1]

2. _____ [1]

(b) List **two** ways in which urban roads can be made safer for cyclists.

1. _____ [1]

2. _____ [1]

[Turn over



27 (a) According to the Highway Code, when should drivers turn on their headlights?

_____ [1]

(b) According to the Highway Code, when should a driver use front/rear fog lights?

_____ [1]

(c) Apart from using fog lights, name **two** recommendations from the Fog Code.

1. _____ [1]

2. _____ [1]

(d) What is meant by the letters M.S.M.?

_____ [1]

(e) Explain briefly why M.S.M. is a necessary part of safe driving.

_____ [2]

28 Other than Police, name **two** agencies which are involved in the promotion of accident prevention or education.

1. _____ [1]

2. _____ [1]



29 (a) Examine Fig. 29.1 below carefully.

Apart from cyclists, how many types of vehicle have permission to use the Bus Lane?

_____ [1]



© Chief Examiner
Fig. 29.1

(b) Suggest **three** advantages of having Bus Lanes in a city.

1. _____ [1]

2. _____ [1]

3. _____ [1]

[Turn over



30 (a) Give 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) Examine Fig. 30.7 below carefully.



Fig. 30.7

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(i) Suggest a speed limit for traffic in Fig. 30.7.

_____ [1]

(ii) Give **one** reason for your answer to question 30(b)(i) above.

_____ [1]

(c) Examine Fig. 30.8 below carefully.



Fig. 30.8

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Suggest **one** reason why two sets of traffic lights, on one pole, are used at this junction.

_____ [1]

[Turn over



31 (a) Name the vehicle system to which each component below belongs.

- 1. coil _____ system [1]
- 2. solenoid _____ system [1]
- 3. rack and pinion _____ system [1]
- 4. expansion/header tank _____ system [1]

(b) Apart from smell, how could you identify a diesel from a petrol engine?

_____ [1]



32 (a) A car shampoo has to be diluted with water in the ratio of 1:24.

Calculate the amount of shampoo contained in a 5 litre mix of shampoo and water.

Answer _____ ml [2]

(b) A motorist can drive 550 kilometres with a 50 litre tank of fuel. Calculate the vehicle's average fuel consumption.

Answer _____ km/l [1]

(c) A motorist buys a car for £19,000. He agrees a deposit and pays the balance in 34 monthly payments of £475. Calculate the deposit paid.

Answer £ _____ [2]

[Turn over



33 (a) Name **two** ways in which road builders can reduce the effect of traffic noise on a new bypass.

1. _____ [1]

2. _____ [1]

(b) Name **two** fuels used in a hybrid vehicle.

1. _____ [1]

2. _____ [1]

(c) State **one** reason why lead was removed from petrol.

_____ [1]

34 (a) What type of road has green coloured signs with white lettering?

_____ [1]

(b) State **two** ways in which motorways differ from A roads.

1. _____ [1]

2. _____ [1]

(c) List **two** reasons why motorways have a better safety record than any other road.

1. _____ [1]

2. _____ [1]





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(Questions continue overleaf)



35 (a) List **two** factors regarding a vehicle which would affect the cost of insuring it.

1. _____ [1]

2. _____ [1]

(b) List **two** factors concerning the driver which would affect the cost of motor insurance.

1. _____ [1]

2. _____ [1]

(c) Explain briefly the meaning of "insurance premium".

_____ [1]

36 (a) Suggest **two** reasons why the level of brake fluid in the reservoir would drop.

_____ [2]

(b) Name the **four** strokes in the four stroke cycle.

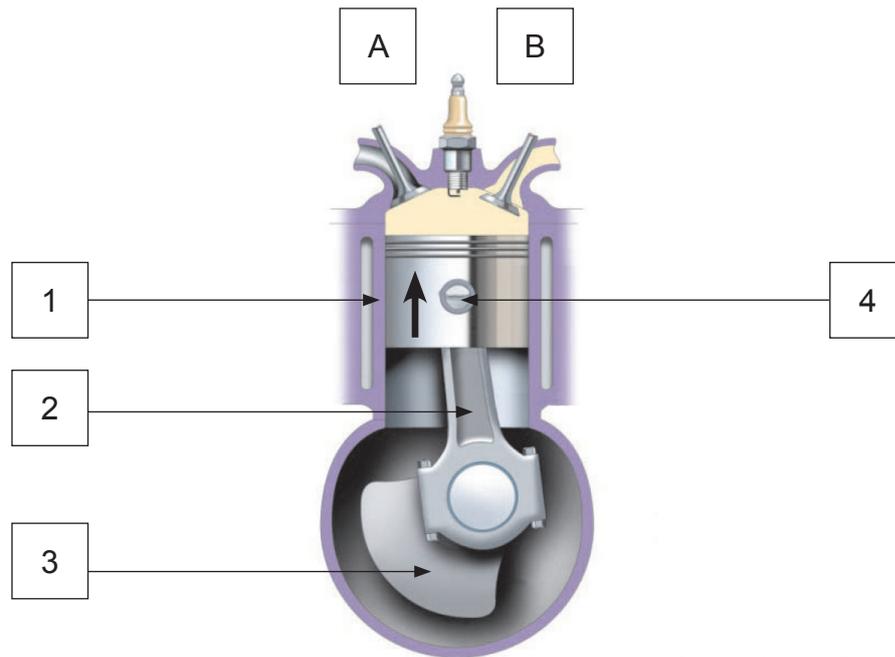
1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]





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Fig. 36.1

(c) Name the parts numbered 1–4 in **Fig. 36.1** above.

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]

(d) Name the valves labelled A and B in **Fig. 36.1** above.

A _____ [1]

B _____ [1]

(e) Name the component which opens and closes the valves A and B in **Fig. 36.1** above.

_____ [2]



37 (a) Name **two** items, excluding a mobile phone, which you could carry in your car, and could prove useful in the event of an emergency or accident.

1. _____ [1]

2. _____ [1]

(b) List **two** ways in which a vehicle could be made safe at an accident scene.

1. _____ [1]

2. _____ [1]

(c) State briefly why it is important to make a vehicle safe at an accident scene.

_____ [1]

38 Human error is the single biggest factor in road accidents. Describe briefly how your driving could contribute to road safety.

_____ [6]



39 Describe how drivers, vehicles and road improvements have all made a contribution to the recent reduction in road accident fatalities.

Drivers

Vehicles

[Turn over



Road improvements

[12]





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- Fig. 20.1: ... Motor Vehicle and Road User Studies, Eamon McPolin, Colour Point Educational, 2009
 Fig. 29.1: ... Photograph taken by Principal Examiner
 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
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Question Number	Marks
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Examiner Number

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