



General Certificate of Secondary Education
2013

Motor Vehicle and Road User Studies

Unit 1: Motor Vehicle and Road User Theory

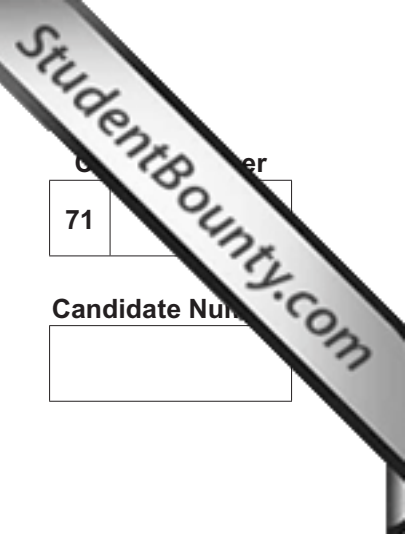
Foundation Tier

[GMV11]

THURSDAY 16 MAY, MORNING



GMV11



Centre Number
71

Candidate Number

For Examiner's use only	
Question Number	Marks
1-3	
4-9	
10-14	
15-20	
21	
22	
23	
24	
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30	
31	
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33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	

Total Marks	
--------------------	--

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.
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 **44**.

Section A

Answer **all** questions.

- 1 Which warning sign, (a), (b) or (c) below, would be used to highlight the hazard on the road ahead?

Answer _____ [1]



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Fig. 1.1



(a)



(b)



(c)

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- 2 _____ crossings allow cyclists and pedestrians to share crossing space and cross at the same time. [1]

- 3 _____ is a word used to describe travelling in a neutral gear or with the clutch pressed down. [1]

Examiner Only	
Marks	Remark

- 4 Advice given in the Highway Code to assist all road users crossing a road is referred to as the _____ . [1]
- 5 _____ is another word used to describe tiredness. [1]
- 6 A broken down vehicle which is parked along the side of a road should have its _____ lights on. [1]
- 7 Engineering, _____ and Education are all methods used to help reduce road accidents. [1]
- 8 An endorsable ticket issued by the police imposes a fine and _____ . [1]
- 9 The arm signals below mean: Stop, traffic is approaching from both front and _____ . [1]



Fig. 9.1

© Crown copyright – The Official Highway Code for Northern Ireland, 2008.

Examiner Only	
Marks	Remark

10 What is the name given to the road markings below?

_____ [1]

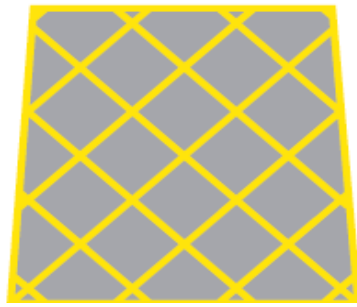


Fig. 10.1

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11 A document which provides details about legal proof of insurance is

known as the Insurance _____ . [1]

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

Answer _____ [1]

Driving Licence	Tax Disc	Petrol Receipt	MOT Certificate	V5 Form
--------------------	-------------	-------------------	--------------------	------------

13 Hydrocarbons and carbon monoxide are two examples of

_____ . [1]

14 _____ is the term used to describe a vehicle which is bought without trading another in. [1]

- 15 A Honda jeep costs £9,000. I can either pay £255 a month for three years or pay cash. If I pay cash, I would save £ _____ . [1]
- 16 A casualty who looks pale, feels faint or dizzy and is very thirsty is likely to be suffering from _____ . [1]
- 17 A _____ controls the temperature of water in a vehicle's cooling system. [1]
- 18 The cylinder below is on the _____ stroke. [1]



Fig. 18.1

© Motor Vehicle and Road Users Studies by Eamonn McPolin, published by Colourpoint Books, 2009. ISBN 9781906578312

- 19 The _____ allows one rear wheel to turn faster than the other when going round corners. [1]
- 20 The component fitted to a vehicle's exhaust pipe to reduce noise is known as a _____ box. [1]

Examiner Only

Marks	Remark
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Section B

Answer **all** questions.

Examiner Only	
Marks	Remark

21 Suggest why tyres have a tread pattern.

_____ [1]

22 Name **one** item which, by law, must be kept clean on a motor vehicle.

_____ [1]

23 (a) State the legal limit for alcohol in:

1. breath _____ micrograms per 100 ml. [1]

2. blood _____ milligrams per 100 ml. [1]

(b) Name **two** ways in which alcohol/drugs can impair a driver.

1. _____ [1]

2. _____ [1]

24 Primary road signs have _____ lettering on

a _____ background. [2]

25 Apart from a helmet, name **two** articles of appropriate clothing which each of the following should wear.

Cyclist 1. _____ [1]

2. _____ [1]

Motorcyclist 1. _____ [1]

2. _____ [1]

26 (a) Apart from the legal requirement, explain briefly why a motorist needs insurance.

_____ [1]

(b) List **three** reasons why young, newly qualified, male drivers are a high insurance risk.

1. _____ [1]

2. _____ [1]

3. _____ [1]

27 Give the meanings of the following initials:

ABS _____ [1]

SORN _____ [1]

PCV _____ [1]

28 (a) At night, when should a driver use his/her main beam?

_____ [1]

(b) Under what circumstances should a driver adjust the vehicle's headlights?

_____ [2]

Examiner Only	
Marks	Remark

Examiner Only	
Marks	Remark

31 (a) Name **three** secondary safety features found on modern cars.

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

(b) Name **two** ways in which motor vehicle pollution has been reduced or discouraged.

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

(c) Examine **Fig. 31.1** below carefully.

Apart from ramps, name **one** traffic calming feature you would expect to find here.

_____ [1]



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Fig. 31.1

- 32 (a) A car costs £15,300. Calculate the monthly repayments over 36 months.

Examiner Only	
Marks	Remark

Answer £_____ [1]

- (b) The buyer decides to make a 20% deposit to buy the car, with repayments over 36 months. Calculate the monthly repayments.

Answer £_____ [2]

- (c) Calculate the distance a vehicle would travel with a 15 gallon tank and a fuel consumption of 55 mpg.

Answer _____ miles [1]

33 (a) Name the **three** actions you should complete on arrival at an accident scene, in order of priority.

1. _____ [1]

2. _____ [1]

3. _____ [1]

(b) At the scene of an accident, list **two** ways in which you could make a vehicle safe.

1. _____ [1]

2. _____ [1]

34 (a) Apart from the engine, suggest a source of the power for power steering.

_____ [1]

(b) Explain briefly a compression ratio of 12:1, in relation to combustion.

_____ [1]

(c) List **two** reasons why regular maintenance checks are necessary on a motor vehicle.

1. _____ [1]

2. _____ [1]

(d) List **two** items which you should check weekly on your vehicle.

1. _____ [1]

2. _____ [1]

Examiner Only

Marks Remark

35 Give the meaning of each of the road signs shown in Fig. 35.1–35.6 below, as stated in the Highway Code.



Fig. 35.1



Fig. 35.2



Fig. 35.3



Fig. 35.4

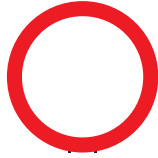


Fig. 35.5



Fig. 35.6

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Fig. 35.1 _____ [1]

Fig. 35.2 _____ [1]

Fig. 35.3 _____ [1]

Fig. 35.4 _____ [1]

Fig. 35.5 _____ [1]

Fig. 35.6 _____ [1]

36 (a) Explain briefly why the two second rule is important to road safety.

 _____ [1]

(b) Under what circumstances should the two second rule be increased?

 _____ [1]

Examiner Only	
Marks	Remark

37 (a) Explain briefly the purpose of a vehicle's suspension system.

 _____ [1]

(b) Explain briefly the purpose of a valve spring.

 _____ [1]

(c) Apart from causing the car to stop, why is it important to ensure that a car's fuel tank is never completely emptied?

 _____ [1]

38 (a) Explain briefly what a blind spot is.

 _____ [1]

(b) Where, on a country road without a footpath, should a pedestrian walk?

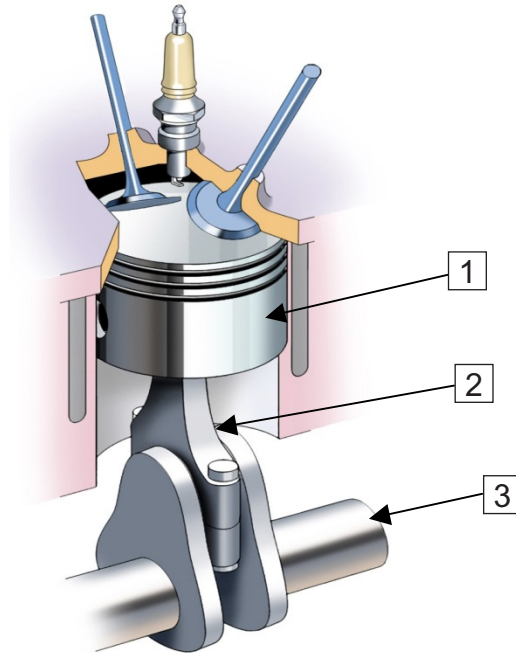
_____ [1]

(c) Name **two** dangers which might be experienced when driving on rural roads.

1. _____ [1]

2. _____ [1]

Examiner Only	
Marks	Remark



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Fig. 39.1

Examiner Only	
Marks	Remark

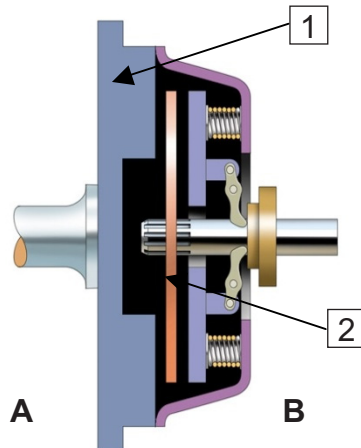
(a) Name the parts marked 1 to 3 in **Fig. 39.1** above.

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

(b) Explain briefly how linear motion is changed into circular motion in a car engine.

_____ [2]

(c)



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Fig. 39.2

Name the parts marked 1 and 2 in **Fig. 39.2** above.

1. _____ [1]

2. _____ [1]

(d) Explain briefly the function of a clutch.

 _____ [1]

(e) On which side of the clutch in **Fig. 39.2** would you expect to find the engine? Answer A or B.

_____ [1]

Examiner Only	
Marks	Remark

40 (a) Apart from resting the night before, list **two** ways **you** could prepare for a long car journey.

1. _____ [1]

2. _____ [1]

(b) Apart from checking fuel, list **two** ways you could prepare **your vehicle** for a long journey.

1. _____ [1]

2. _____ [1]

(c) Suggest **one** reason why speed limits are lower on single carriageway roads rather than on dual carriageways or motorways.

_____ [1]

41 (a) The maximum speed limit on a motorway is _____ mph. [1]

(b) Name the approach road used when joining a motorway.

_____ [1]

(c) What action must you take if you have missed your exit on the motorway?

_____ [1]

(d) Name **two** vehicles restricted from using the third, outside lane of a motorway.

1. _____ [1]

2. _____ [1]

Examiner Only

Marks Remark

42 Apart from overtaking, name **two** occasions when a driver would use MSM on a motorway.

1. _____ [1]

2. _____ [1]

43 Describe briefly what you should do if your vehicle breaks down on a motorway.

_____ [6]

Examiner Only	
Marks	Remark

44 Safe driving involves observation, courtesy and anticipation. Explain briefly how this can be achieved, using the headings below.

Observation

Courtesy

Examiner Only	
Marks	Remark

Anticipation

[12]

Examiner Only

Marks

Remark

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