



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



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	
25	
26	
27	
28	
29	
30	
31	
32	
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]



© John McMorrow / CCEA

Fig. 1.1



(a)



(b)



(c)

© Crown Copyright – Department for Transport

- 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

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

_____ [1]

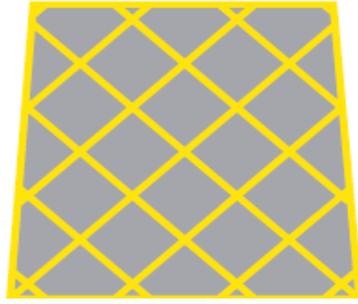


Fig. 10.1

© Crown Copyright – Department for Transport

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]

Examiner Only	
Marks	Remark

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

29 Suggest a time when the part-time signals in Fig. 29.1 below would operate.

[1]



© John McMorrow / CCEA
Fig. 29.1

30 Examine Fig. 30.1 below carefully.

Describe **two** hazards in the photograph.

1. _____

[1]

2. _____

[1]



© John McMorrow / CCEA
Fig. 30.1

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]



© John McMorrow / CCEA
Fig. 31.1

Examiner Only	
Marks	Remark

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

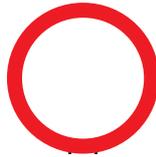


Fig. 35.5



Fig. 35.6

© Crown Copyright – Department for Transport

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?

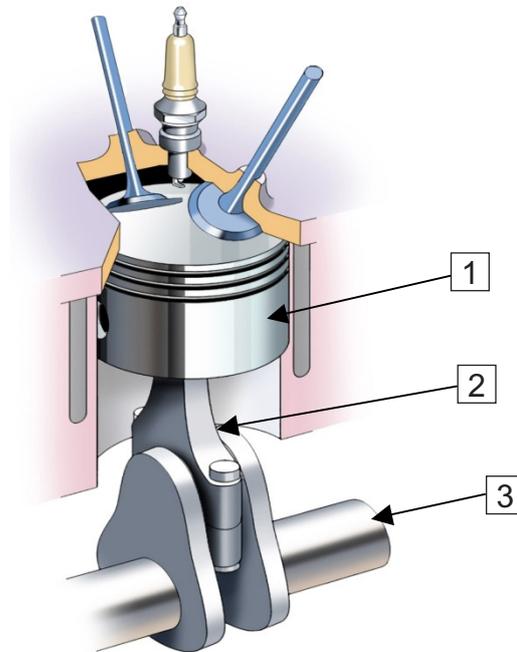
_____ [1]

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

1. _____ [1]

2. _____ [1]

Examiner Only	
Marks	Remark



© Motor Vehicle and Road Users Studies by Eamonn McPolin, published by Colourpoint Books, 2009. ISBN 9781906578312
Fig. 39.1

Examiner Only	
Marks	Remark

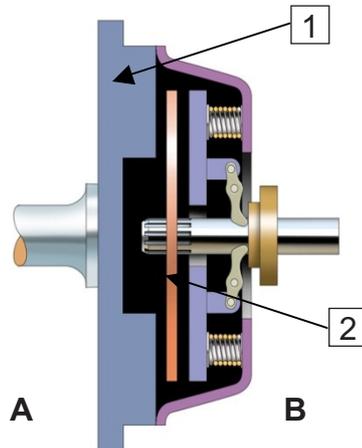
(a) Name the parts marked 1 to 3 in **Fig. 39.1** above.

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

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

 _____ [2]

(c)



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

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

Permission to reproduce all copyright material has been applied for.
In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA
will be happy to rectify any omissions of acknowledgement in future if notified.