



Rewarding Learning

General Certificate of Secondary Education
2025

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



[GMR11]

GMR11

TUESDAY 6 MAY, MORNING

TIME

1 hour 45 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 black ink only. **Do not write with a gel pen.**

Answer **all** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 160.

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 **40**, **41** and **42**.



Answer **all** questions

1 The maximum speed limit for a goods vehicle exceeding 7.5 tonnes on a single carriageway is _____ mph. [1]

2 _____, signal and manoeuvre (MSM) are essential actions for safe driving. [1]

3 The road shown in **Fig. 3.1** below should have a road sign to warn motorists of a dangerous road hazard ahead.

What **two** words are missing from the sign shown in **Fig. 3.2** below?



Fig. 3.1



Fig. 3.2

Missing words: _____ [1]



4 The arm signal below means:

Traffic approaching from _____ must stop.

[1]



Fig. 4.1

5 What name is given to the area marked by the arrow in Fig. 5.1 below?

[1]

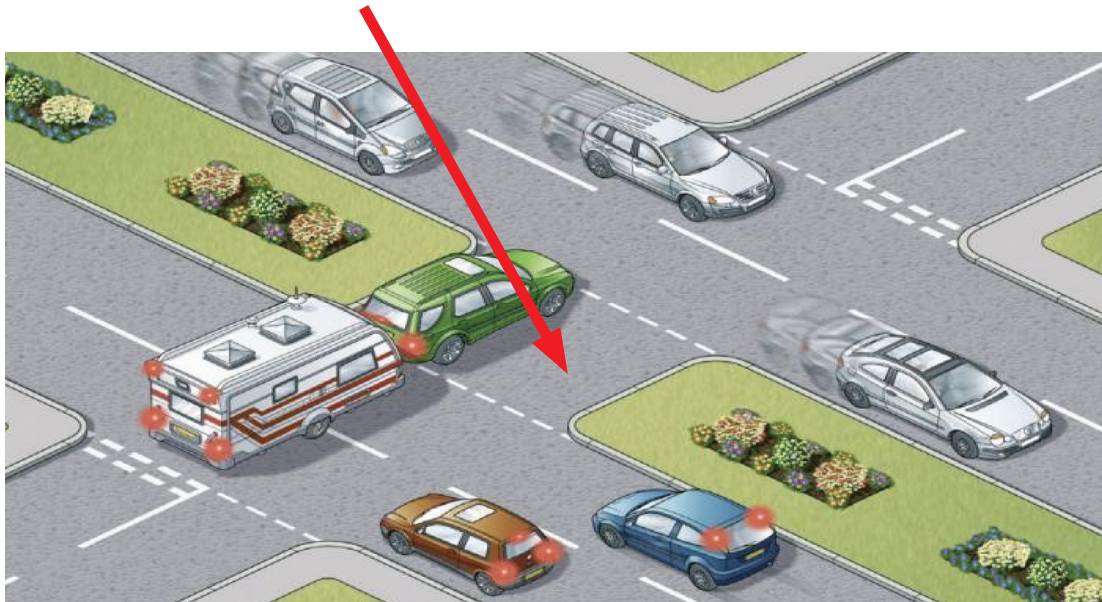


Fig. 5.1

[Turn over



- 6 Signs on a dual carriageway have white lettering on a _____ background. [1]
- 7 According to the Highway Code, if there is no footpath, pedestrians should walk on the _____ hand side of the road facing oncoming traffic. [1]
- 8 A warning triangle should be placed at least _____ metres behind a broken down vehicle. [1]
- 9 Standing water, worn tyres and excess speed will cause a vehicle to _____ . [1]
- 10 The sign in **Fig. 10.1** below means _____ . [1]



Fig. 10.1



11 At _____ years of age, road users can apply for a provisional licence. [1]

12 Name the legal requirement missing from the list below.

Driving Licence

Insurance

V5

VED

[1]

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

14 Fuel and maintenance are two examples of _____ costs for a motorist. [1]

15 _____ is a measure of how many miles a vehicle can travel on one gallon of fuel. [1]

16 Checking breathing, _____ and consciousness are three important procedures of first aid. [1]

17 Inlet, _____ and exhaust are all types of port found on a two-stroke engine. [1]

[Turn over



18 The MacPherson strut is part of the _____ suspension system. [1]

19 In the cooling system, the water _____ surrounds the cylinders. [1]

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



Vehicle Control and Road User Behaviour

21 A part of the road which cannot be seen by a driver, even with the use of mirrors, is known as a _____ . [1]

22 Items which assist the driver and passengers in the event of an accident are known as _____ [1]

23 Give **two** reasons why newly qualified drivers must display an R plate.

1. _____ [1]

2. _____ [1]

24 List **two** reasons why drivers aged between 18 and 21 years are more likely to be involved in a road traffic collision.

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]

[Turn over



26 Give the meanings of the following initials:

SORN _____ [1]

LGV _____ [1]

PCV _____ [1]

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

(b) Motorways in Italy are known as _____ . [1]

(c) Name the approach road used when joining a motorway.
_____ [1]

(d) What action must a motorist take if they have missed their exit on the motorway?
_____ [1]

(e) List **two** vehicle manoeuvres not permitted on a motorway.
1. _____ [1]
2. _____ [1]

(f) List **three** actions a motorist should take if their vehicle breaks down on a motorway. They do not have their mobile phone with them.
1. _____ [1]
2. _____ [1]
3. _____ [1]



28 (a) List the **two** authorised persons who can show you across the road, as stated in the Highway Code.

1. _____ [1]

2. _____ [1]

(b) With reference to motoring law, what is the difference in penalty between an endorsable and non-endorsable offence?

Endorsable _____ [1]

Non-endorsable _____ [1]

[Turn over



29 Examine the photograph in Fig. 29.1 below.



Fig.29.1

(a) List **two** possible dangers for motorists wishing to overtake the cyclists in Fig.29.1 above.

1. _____ [1]

2. _____ [1]

(b) What action should a motorist take to safely overtake the cyclists in Fig. 29.1?

_____ [1]



Examine the photograph in **Fig. 29.2** below.



Fig.29.2

(c) List **two** difficulties for the cyclist posed by the passing lorry in **Fig. 29.2** above.

1. _____ [1]

2. _____ [1]

(d) List **two** benefits of cycle lanes.

1. _____ [1]

2. _____ [1]

[Turn over



Examine the photograph in **Fig. 29.3** below.



Fig.29.3

(e) List **two** potential hazards for motorists driving along the road in **Fig. 29.3** above.

1. _____ [1]

2. _____ [1]

(f) To reverse into a parking space in **Fig. 29.3** above and park alongside the kerb between two parked cars is referred to as

_____ [1]



30 (a) Give the meaning of each of the road signs shown in Fig. 30.1 a to Fig. 30.1 f below.



Fig. 30.1 a



Fig. 30.1 b



Fig. 30.1 c



Fig. 30.1 d



Fig. 30.1 e



Fig. 30.1 f

Fig. 30.1 a _____ [1]

Fig. 30.1 b _____ [1]

Fig. 30.1 c _____ [1]

Fig. 30.1 d _____ [1]

Fig. 30.1 e _____ [1]

Fig. 30.1 f _____ [1]

[Turn over



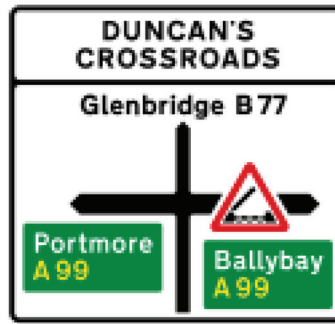


Fig. 30.2

(b) What type of road are motorists travelling on to Glenbridge in Fig. 30.2 above?

_____ [1]

(c) What important information do motorists need to be aware of travelling to Ballybay in Fig. 30.2 above?

_____ [1]

(d) Apart from an A route, what type of road is the A99 in Fig. 30.2 above?

_____ [1]

(e) Explain briefly why the two-second rule is important to road safety.

_____ [1]



Legal Requirements

31 (a) List **four** pieces of information found on a vehicle registration document (V5).

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]

(b) What is meant by the term “first party”?

_____ [1]

(c) Name the type of insurance which offers the most cover or protection.

_____ [1]

(d) State the **one** advantage of “third party only” cover.

_____ [1]

[Turn over



32 (a) List the **three** legal requirements for a passenger who is supervising a learner driver.

1. _____ [1]

2. _____ [1]

3. _____ [1]

(b) Name **two** types of child restraint which can legally be used in a vehicle.

1. _____ [1]

2. _____ [1]

(c) From whom can a seat belt exemption be acquired?

_____ [1]

(d) Who is responsible for ensuring that a 14-year-old child has their seat belt on?

_____ [1]



Road Transport and Its Effects on Society

33 (a) State **one** advantage and **one** disadvantage of a hybrid car.

Advantage _____ [1]

Disadvantage _____ [1]

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

1. _____ [1]

2. _____ [1]

(c) Give **two** advantages of sound insulation in a motor vehicle.

1. _____ [1]

2. _____ [1]

(d) How can motorcyclists protect themselves from the noise of a motorbike?

_____ [1]

[Turn over



Motoring Mathematics

- 34 (a) Calculate the monthly cost of insurance if the annual premium is £750 and the proposer is entitled to 40% no claims discount (based on no claims made for the previous three years).

Answer _____ [2]

- (b) If the same proposer with the 40% no claims discount applied is charged an additional cost of £60 per annum for “protected bonus”, what would their monthly insurance cost?

Answer _____ [2]

- (c) A motorist planning a touring holiday calculates they will travel a total of 3000 miles around France.

If the vehicle averages 40 mpg and fuel costs on average £5.80 per gallon, calculate how much the motorist should budget for fuel.

Answer _____ [2]



35 (a) Write down **three** actions which a motorist could take to help reduce fuel costs.

1. _____ [1]

2. _____ [1]

3. _____ [1]

(b) Give **two** reasons why fuel consumption figures for a vehicle do not remain constant during a journey.

1. _____ [1]

2. _____ [1]

(c) List **three** methods which can be used to pay for motor insurance.

1. _____ [1]

2. _____ [1]

3. _____ [1]

[Turn over



Collision Procedures

36 (a) What is the second priority at the scene of an accident?

_____ [1]

(b) List **two** ways you could make a vehicle safe at an accident scene.

1. _____ [1]

2. _____ [1]

(c) List the **four** types of wound.

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]



Motor Vehicle Technology

37 Typical front wheel and rear wheel suspension systems are shown in Fig. 37.1 and Fig 37.2 below.

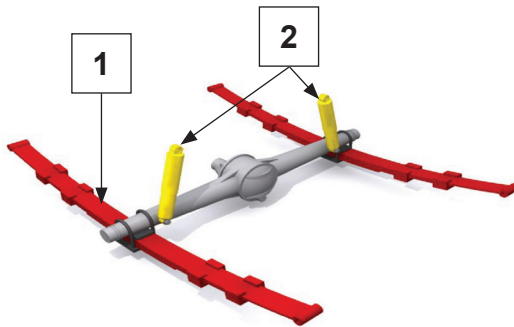


Fig. 37.1

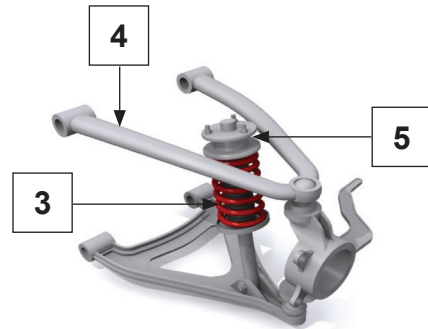


Fig. 37.2

(a) State which is the rear wheel suspension.

Fig. _____ [1]

(b) Name the parts 1 – 5 of the front and rear wheel suspension systems.

1. _____ [1]

2. _____ [1]

3. _____ [1]

4. _____ [1]

5. _____ [1]

(c) State **two** functions of the suspension system.

1. _____ [1]

2. _____ [1]

[Turn over



38 (a) Name the **two** components attached to the connecting rod.

1. _____ [1]

2. _____ [1]

(b) Name **two** components found in a vehicle's ignition system.

1. _____ [1]

2. _____ [1]

(c) State the **two** types of movement made by a universal joint.

1. _____ [1]

2. _____ [1]

(d) Name the liquid found in a vehicle battery.

_____ [1]

(e) Name the component responsible for boosting the voltage in a vehicle engine.

_____ [1]



39 (a) Fig. 39.1 below shows the main parts of the _____ system. [1]

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Fig. 39.1

(b) Name the parts numbered 1 – 8 in Fig. 39.1 above.

1. _____ [1]
2. _____ [1]
3. _____ [1]
4. _____ [1]
5. _____ [1]
6. _____ [1]
7. _____ [1]
8. _____ [1]

[Turn over



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

_____ [1]

(d) What would happen if the thermostat in a four-stroke engine was jammed shut?

_____ [1]

(e) Explain briefly why antifreeze is added to an engine cooling system.

_____ [1]

40 State the differences or similarities between motorways and dual carriageways.

_____ [6]





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SOURCES

Fig. 3.1: Getty Images

Fig. 3.2: Chief Examiner

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Fig. 10.1.....Chief Examiner

Fig. 29.1. Getty Images

Fig. 29.2. Getty Images

Fig. 29.3. Getty Images

Fig. 37.1. Chief Examiner

Fig. 37.2.....Chief Examiner

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Examiner Number

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