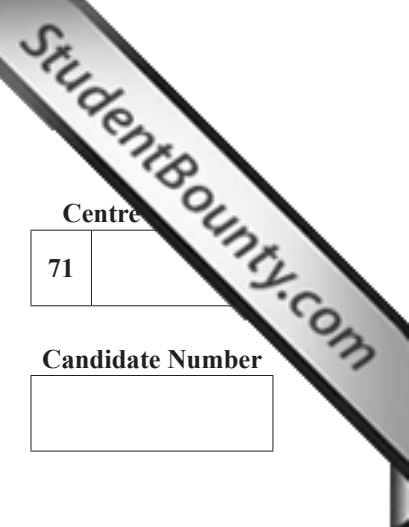




Rewarding Learning

General Certificate of Secondary Education

2010



Centre

71

Candidate Number

Empty box for candidate number

Motor Vehicle and Road User Studies

Paper 1 Foundation Tier

[G6802]

WEDNESDAY 19 MAY, MORNING



For Examiner's use only	
Question Number	Marks
1-20	
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48	

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 forty-eight** questions.

Section A – Answer **all twenty** questions. Record your answers by marking the appropriate letter on the answer sheet provided. Use only the spaces numbered 1 to 20. Keep in sequence when answering.

Section B – Answer **all twenty-eight** questions.

Write your answers in the spaces provided in this question paper.

You are provided with an insert for use with Questions **33** and **38** in this paper.

Do not write your answers on this insert.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120.

Quality of written communication will be assessed in Questions **47** and **48**.

In Section A, all questions carry equal marks, i.e. **one** mark for each question.

In Section B, the figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

You are advised to spend approximately 25 minutes on Section A and 65 minutes on Section B.

You may use an electronic calculator.

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

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Section A

You must answer **all twenty** questions.

Each of the questions or incomplete statements in this section is followed by five possible answers A, B, C, D and E. Choose the best answer for each question. Do this by putting a thick pencil line through the correct letter in the boxes provided on your answer sheet. You should spend approximately **25 minutes** on this section.

1 The maximum speed limit for a car towing a caravan or trailer on a dual carriageway, in MPH, is

- A 30.
- B 40.
- C 50.
- D 60.
- E 70.

2 Which one of the following is permitted on a motorway?

- A reversing on the carriageway
- B stopping on the hard shoulder in an emergency
- C exceeding 70 MPH
- D driving with a provisional licence
- E stopping on the central reservation in an emergency

3 The traffic sign in **Fig. 3.1** below means

- A dual carriageway ends.
- B two way traffic.
- C road narrows on both sides.
- D give way to on-coming traffic.
- E traffic emerging.



Fig. 3.1

- 4 The national speed limit in Northern Ireland, in MPH, is
- A 30.
 - B 40.
 - C 50.
 - D 60.
 - E 70.
- 5 A green flashing light is fitted to a
- A “doctor on call” car.
 - B fire engine.
 - C police vehicle.
 - D road gritter.
 - E DOE road service vehicle.
- 6 Hazard warning lights should only be used when
- A parked on double lines.
 - B stopped and temporarily causing an obstruction.
 - C travelling slowly looking for directions.
 - D driving in falling snow.
 - E giving acknowledgement to another driver.

- 7 Which one of the following statements is **true**?
- A A vehicle can only reverse on a motorway on the hard shoulder
 - B Driver and Vehicle Agency enforcement officers have powers to stop vehicles
 - C The legal limit of alcohol is 107mg/100ml of blood
 - D A car must not have a mixture of radial and cross-ply tyres
 - E Traffic signs which give orders are usually triangular in shape
- 8 A box junction would not be found at a
- A light-controlled junction.
 - B school entrance.
 - C level crossing.
 - D roundabout.
 - E cycle crossing.
- 9 The reflective studs between a motorway and its slip road are
- A amber.
 - B white.
 - C green.
 - D red.
 - E blue.

- 10 If you are travelling on a motorway and a red cross is displayed above the hard shoulder, you should
- A use this lane as a running lane.
 - B leave the motorway at the next exit.
 - C reduce speed to national speed limit.
 - D not use this lane.
 - E put on your hazard warning lights.
- 11 A person applying for car insurance is called the
- A proposer.
 - B policyholder.
 - C agent.
 - D broker.
 - E underwriter.
- 12 Which one of the following is **not** included in Third Party insurance cover?
- A injuries to passengers
 - B damage to another person's property
 - C damage to insured vehicle
 - D injuries to pedestrians
 - E damage to other vehicles

13 Which one of the following is **not** a traffic management technique?

- A bus lanes
- B speed bumps
- C roundabouts
- D seat belt regulations
- E one-way streets

14 Which one of the following is **not** a running cost for a vehicle?

- A fuel
- B servicing and repairs
- C MOT test
- D oil
- E tyres

15 A car bought for £16,500 and sold three years later for £9,000 had an average annual depreciation of

- A £7,500.
- B £5,000.
- C £4,500.
- D £2,500.
- E £1,250.

- 16** If a road casualty stops breathing, approximately how long, in minutes, will it take for brain damage or death to occur?
- A 1 to 2
 - B 3 to 4
 - C 5 to 6
 - D 7 to 8
 - E 9 to 10
- 17** Connecting rods connect the
- A pistons to the crankshaft.
 - B cylinder head to the cylinder block.
 - C crankshaft to the flywheel.
 - D big ends to the crankshaft.
 - E sump to the cylinder block.
- 18** A manifold is part of which one of the following systems?
- A lubrication
 - B braking
 - C cooling
 - D electrical
 - E fuel

19 An electrolyte is found in the

- A radiator.
- B master cylinder.
- C fuel tank.
- D battery.
- E windscreen washer bottle.

20 Fuel mixture enters a two-stroke engine through the

- A exhaust port.
- B inlet port.
- C piston port.
- D crankshaft port.
- E transfer port.

Section B

You must answer **all twenty-eight** questions.

You should spend approximately **65 minutes** on this section.

21

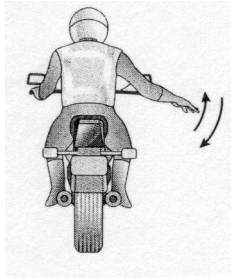


Fig. 21.1

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What signal is being given by the motorcyclist in **Fig 21.1** above?

_____ [1]

22 State the minimum vehicle tyre tread depth over the centre three quarters of the tyre for a car.

_____ mm [1]

23 (a) Name one vehicle fluid level which is examined in the MOT test.

_____ [1]

(b) What damage could be caused to an engine without antifreeze in the cooling system during winter?

_____ [1]

Examiner Only	
Marks	Remark

42 List **two** advantages and **two** disadvantages for electric, tracked trams in a large city.

Advantages 1. _____
2. _____ [2]

Disdvantages 1. _____
2. _____ [2]

43 (a) What could a motorist look for when checking a vehicle's tyres? Give two answers.

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

(b) Name **one** action which would accelerate tyre wear.

_____ [1]

44 (a) List **two** factors which could cause aquaplaning.

1. _____
2. _____ [2]

(b) List **two** reasons why most road traffic accidents occur in daylight and in fine weather.

1. _____
2. _____ [2]

Examiner Only	
Marks	Remark

Examiner Only	
Marks	Remark

45 (a) Describe briefly the purpose of the following components:

gearbox _____ [1]

clutch _____ [1]

(b) On which wheels do the following car braking systems work?

mechanical system _____ [1]

hydraulic system _____ [1]

46 (a) Name **two** ways in which road engineers can make roads safer.

1. _____

2. _____ [2]

(b) Name **two** exhaust gases which would affect air quality.

1. _____

2. _____ [2]

47 Explain briefly why different speed limits are set for different types of roads.

_____ [6]

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GCSE Motor Vehicle and Road User Studies 2010

Paper 1 Foundation Tier

[G6802]

For use with Question 33



Fig. 33.1



Fig. 33.2



Fig. 33.3



Fig. 33.4



Fig. 33.5



Fig. 33.6

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For use with Question 38



Fig. 38.1



Fig. 38.2