

General Certificate of Secondary Education

2010

Centre 71 Candidate Number

Motor Vehicle and Road User Studies

Paper 1 Foundation Tier

[G6802]

WEDNESDAY 19 MAY, MORNING



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.

For Examiner's use only		
Question Number	Marks	
1–20		
21		
22		
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24		
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35		
36		
37		
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39		
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41		
42		
43		
44		
45		
46		
47		
48		

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.
 - В 40.
 - \mathbf{C} 50.
 - D 60.
 - E 70.
- 2 Which one of the following is permitted on a motorway?
 - reversing on the carriageway
 - В stopping on the hard shoulder in an emergency
 - exceeding 70 MPH \mathbf{C}
 - 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.
 - В two way traffic.
 - C road narrows on both sides.
 - D give way to on-coming traffic.
 - traffic emerging. E



Fig. 3.1

	В	40.
	C	50.
	D	60.
	Е	70.
5	Αg	green flashing light is fitted to a
	A	"doctor on call" car.
	В	fire engine.
	C	police vehicle.
	D	road gritter.
	E	DOE road service vehicle.
6	Ha	zard warning lights should only be used when
	A	parked on double lines.
	В	stopped and temporarily causing an obstruction.
	C	travelling slowly looking for directions.
	D	driving in falling snow.
	Е	giving acknowledgement to another driver.

The national speed limit in Northern Ireland, in MPH, is

4

A 30.

5406

	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 b	ox junction would not be found at a
	A	light-controlled junction.
	В	school entrance.
	C	level crossing.
	D	roundabout.
	E	cycle crossing.
9	The	e reflective studs between a motorway and its slip road are
	A	amber.
	В	white.
	C	green.
	D	red.
	Е	blue.

В

Which one of the following statements is **true**?

A A vehicle can only reverse on a motorway on the hard shoulder

Driver and Vehicle Agency enforcement officers have powers to stop vehicles

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.		
	В	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 p	person applying for car insurance is called the		
	A	proposer.		
	В	policyholder.		
	C	agent.		
	D	broker.		
	E	underwriter.		
12	Wh	nich one of the following is not included in Third Party insurance cover?		
	A	injuries to passengers		
	В	damage to another person's property		
	C	damage to insured vehicle		
	D	injuries to pedestrians		
	E	damage to other vehicles		

	A	bus lanes
	В	speed bumps
	C	roundabouts
	D	seat belt regulations
	E	one-way streets
14	Wh	nich one of the following is not a running cost for a vehicle?
	A	fuel
	В	servicing and repairs
	C	MOT test
	D	oil
	E	tyres
15		ar bought for £16,500 and sold three years later for £9,000 had an average annual preciation of
	A	£7,500.
	В	£5,000.
	C	£4,500.
	D	£2,500.
	E	£1,250.

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

lU		nage or death to occur?
	A	1 to 2
	В	3 to 4
	C	5 to 6
	D	7 to 8
	Е	9 to 10
17	Co	nnecting rods connect the
	A	pistons to the crankshaft.
	В	cylinder head to the cylinder block.
	C	crankshaft to the flywheel.
	D	big ends to the crankshaft.
	Е	sump to the cylinder block.
18	An	nanifold is part of which one of the following systems?
	A	lubrication
	В	braking
	C	cooling
	D	electrical
	E	fuel

19	An electrolyte is found in the		
	A	radiator.	
	В	master cylinder.	
	C	fuel tank.	
	D	battery.	
	E	windscreen washer bottle.	
20	Fue	el mixture enters a two-stroke engine through the	
	A	exhaust port.	
	В	inlet port.	
	C	piston port.	
		piston port. crankshaft port.	
		crankshaft port.	
	D	crankshaft port.	

Section B

Examiner Only

Marks Remark

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]

5406

24	(a)	On a dual carriageway, how far behind a broken down vehicle shou warning triangle be placed?		Examine larks	Remark
	(b)	What action should you take when finding a piece of debris on the motorway?			
			[1]		
25	(a)	List two reasons why a pedestrianised street is safe for pedestrians. 1			
		2	[2]		
	(b)	Name two vehicles which are permitted into a pedestrianised street certain times only.	at		
		1. 2.			
26	List	two advantages of a park and ride system.			
	1.				
27	(a)	If 100 kph = 62 mph, calculate 50 mph in kph.			
		kph	[1]		
	(b)	How much petrol and oil would be required to fill a 5 litre moped for tank if it is marked 24:1?	ıel		
		Petrol	[1]		
		Oil	[1]		

			Examin	er Only
28	Name three actions you could take to make a vehicle safe following an accident.		Marks	Remark
	1			
	2			
	3	[3]		
29	Name two reasons why traffic is calmed on urban streets.			
	1			
	2	[2]		
30	List three hazards which a motorist might meet when driving on country roads.			
	1			
	2			
	3	[3]		
31	Where on a city road might a cyclist feel safer?			
		[1]		

	bag.	
	Name three legal requirements for the person who supervises a lead driver.	rner
	1	
	 2. 3. 	
	J.	. [2]
33 Stud	y the road signs on page 1 of the insert sheet.	
Expl	ain the meaning of each of the road signs in Fig. 33.1 to Fig. 33.6.	
Fig.	33.1	_[1]
Fig.	33.2	_[1]
Fig.	33.3	_[1]
Fig.	33.4	_[1]
Fig.	33.5	_[1]
Fig.	33.6	_[1]

34	(a)	Name the medical condition and treatment for a road traffic accident victim wandering at or near the scene in a dazed or confused manner	
		Medical condition	[1]
		Treatment	[1]
	(b)	Explain why it is important not to give this patient anything to drink	
	(c)	Give two reasons for placing an unconscious and breathing casualty the recovery position.	in
		1	
		2	
35	(a)	How would a driver notice the effects of unbalanced front wheels at speed?	
			[1]
	(b)	Suggest two reasons why a vehicle with underinflated tyres could be dangerous.	
		1	
		2	[2]
	(c)	Apart from being caught, name two dangers associated with driving above the speed limit.	
		1	_
		2	[2]

2	Sta	te two reasons why a motorist should listen to radio traffic reports.	Examiner
2	1		Marks R
2	1.		
Give two examples of road markings which can help the motorist read the road ahead. 1			
Give two examples of road markings which can help the motorist read the road ahead. 1			
Give two examples of road markings which can help the motorist read the road ahead. 1	2		
Give two examples of road markings which can help the motorist read the road ahead. 1			[2]
road ahead. 1			[2]
road ahead. 1			
Study photographs Fig. 38.1 and Fig. 38.2 on page 2 of the insert sheet. (a) Name one hazard which a motorist would face. Fig. 38.1			ne
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(a) Name one hazard which a motorist would face. Fig. 38.1	2		[2]
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(a) Name one hazard which a motorist would face. Fig. 38.1	~		
Fig. 38.1	Stu	dy photographs Fig. 38.1 and Fig. 38.2 on page 2 of the insert sheet.	
Fig. 38.1	(a)	Name one hazard which a motorist would face.	
Fig. 38.2	()		
(b) In Fig. 38.1, apart from slowing down, name one action a driver could be prepared to take. [1] Name two pieces of information you must give the DVLNI if there is a change to your personal details. [1]		Fig. 38.1	[1]
(b) In Fig. 38.1, apart from slowing down, name one action a driver could be prepared to take. [1] Name two pieces of information you must give the DVLNI if there is a change to your personal details. [1]		Eig 39.2	[1]
Name two pieces of information you must give the DVLNI if there is a change to your personal details. [1]		rig. 30.2	
Name two pieces of information you must give the DVLNI if there is a change to your personal details. 1	(b)	•	uld
Name two pieces of information you must give the DVLNI if there is a change to your personal details. 1 [1]			
Name two pieces of information you must give the DVLNI if there is a change to your personal details. 1 [1]			[1]
change to your personal details. 1 [1]			[-]
change to your personal details. 1 [1]			
change to your personal details. 1 [1]			
	1		[1]
2 [1]	٠.		r1
	2.		[1]

40	Insert the following words in the paragraph below.	Examin Marks	er Only Remark
	Insurance certificate no claims discount premium	IVIAIRS	Kemark
	policy holder insurance company		
	The had an accident. He phoned		
	the right away. He was able to produce		
	his to the police within twenty four hours.		
	His will not increase as		
	his was protected. [5]		
41	A Mondeo 1.8 TDCi Edge 5 door saloon can be purchased for the following prices.		
	A car supermarket for £11,700.00		
	A main dealer for £17,250.00		
	(a) Find the difference between the prices as given above.		
	[1]		
	(b) If the car is purchased from the car supermarket and drops in value by 32% over three years, how much will the car be worth then?		
	[3]		

42	List two advlarge city.	vantages and two disadvantages for electric, tracked trams in	Examiner Only Marks Remark
	Advantages	1	
		2	[2]
	Disdvantage	es 1	
		2	[2]
43	(a) What co	ould a motorist look for when checking a vehicle's tyres? Gi	ive
	1		[1]
	2		[1]
	(b) Name of	one action which would accelerate tyre wear.	
			_ [1]
44		o factors which could cause aquaplaning.	
		o reasons why most road traffic accidents occur in daylight a weather.	and
	1		
	2		[2]

45	(a)	Describe briefly the purpose of the following components:		Examiner Only Marks Remark
		gearbox	[1]	marko Remark
		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		
	(b)	Name two exhaust gases which would affect air quality.		
		1		
		2	[2]	
47	Evr	plain briefly why different speed limits are set for different types of		
T /	road			
			 [6]	

G	ive your views on this statement making reference in your answer to	
vi	sibility, observation and anticipation for both pedestrians and motorists.	
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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

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