

GCSSE

**Motor Vehicle and
Road User Studies**

Summer 2010

Mark Schemes

Issued: October 2010

**NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE)
AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)**

MARK SCHEMES (2010)

Foreword

Introduction

Mark Schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of 16- and 18-year-old students in schools and colleges. The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes therefore are regarded as a part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.

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Rewarding Learning

General Certificate of Secondary Education

2010

Motor Vehicle and Road User Studies

Paper 1
Foundation Tier

[G6802]

WEDNESDAY 19 MAY, MORNING

**MARK
SCHEME**

Section A

- 1 D
- 2 B
- 3 C
- 4 D
- 5 A
- 6 B
- 7 B
- 8 E
- 9 C
- 10 D
- 11 A
- 12 C
- 13 D
- 14 C
- 15 D
- 16 B
- 17 A
- 18 E
- 19 D
- 20 B

**AVAILABLE
MARKS**

20 × [1]

20

Section A

20

Section B

			AVAILABLE MARKS
21	slowing down or stopping	[1]	1
22	1.6 mm.	[1]	1
23	(a) washer water	[1]	
	(b) damage engine, crack cylinder block, etc.	[1]	2
24	(a) 50 m.	[1]	
	(b) phone police on emergency phone	[1]	2
25	(a) no vehicles, only pedestrians allowed, etc.	[2]	
	(b) delivery/service vehicles and emergency service vehicles	[2]	4
26	any two from		
	environmentally friendly, increased use of public transport, quicker to city centre than car, less stressful, more relaxing for the driver etc.	[2]	2
27	(a) $100 \times 50 \div 62 = 80.6$ (81)	[1]	
	(b) $5 \div 25 = 0.2$ l $5.0 - 0.2 = 4.8$		
	petrol = 4.8 l		
	oil = 0.2 l	[2]	3
28	any three from		
	switch off ignition, remove key, chock wheels, put on handbrake, disconnect battery	[3]	3
29	slow traffic, reduce accidents, etc.	[2]	2
30	any three from		
	bends, horses, farm animals, slow tractors, muck on roads, pedestrians, etc.	[3]	3

			AVAILABLE MARKS
31	cycle lane	[1]	1
32	(a) risk of suffocation when bag is deployed	[2]	
	(b) over 21, full licence, driving for three years	[3]	5
33	Fig. 33.1 maximum speed 40 mph	[1]	
	Fig. 33.2 minimum speed 30 mph	[1]	
	Fig. 33.3 staggered junction	[1]	
	Fig. 33.4 two way traffic crossing one way street	[1]	
	Fig. 33.5 dual carriageway ends	[1]	
	Fig. 33.6 wild animals	[1]	6
34	(a) Medical condition shock	[1]	
	Treatment keep warm, reassure	[1]	
	(b) suspect internal injuries, could require surgery with anaesthetic	[1]	
	(c) any two from		
	open airway, easily monitored, can't cause further injury etc.	[2]	5
35	(a) wobble, vibration via steering column	[1]	
	(b) any two from		
	poor cornering/braking, accelerated wear (internal and external)	[2]	
	(c) any two from		
	increased accident risk, longer stopping distances etc.	[2]	5
36	any two from		
	breakdown location, traffic jams, flooding, accidents, etc.	[2]	2

		AVAILABLE MARKS
37	gaps in centre line reduce approaching a bend, solid single or double white lines indicate bend or dead ground etc.	[2] 2
38	(a) Fig. 38.1 hidden dip/dead ground [1] Fig. 38.2 frost in winter [1]	
	(b) pull into left if approaching car is overtaking, etc.	[1] 3
39	any two from address, name, medical condition	[2] 2
40	The policy holder had an accident. He phoned the insurance company right away. He was able to produce his insurance certificate to the police within twenty four hours. His premium will not increase as his no claims discount was protected.	[5] 5
41	(a) $\pounds 17,250.00 - \pounds 11,700.00 = \pounds 5,550$ [1]	
	(b) $\pounds 11,700.00 \div 100 \times 32 = \pounds 3,744.00$ $\pounds 11,700 - \pounds 3,744 = \pounds 7,956$ [3]	4
42	Advantage: any two from quiet, non polluting, clean, regular, cheap, etc. [2]	
	Disadvantage: any two from confined to routes with wires/rails disruptive during construction, cannot overtake, passengers board in middle of road, etc. [2]	4
43	(a) any two from cuts, bulges, glass/objects in the tread, pressure, tread depth, etc. [2]	
	(b) harsh acceleration/braking, etc. [1]	3

			AVAILABLE MARKS
44 (a)	any two from: excess speed/surface water/worn tyres	[2]	
(b)	any two from: excess speed, lack of concentration, distractions, etc.	[2]	4
45 (a)	The gearbox to select gears	[1]	
	The clutch to disengage drive from the engine	[1]	
(b)	Mechanical system handbrake – operates on rear wheels only	[1]	
	Hydraulic system footbrake – operates on all four wheels	[1]	4
46 (a)	painting lines, signage, reflective studs, edge reflectors, chevron markers, etc.	[2]	
(b)	carbon monoxide, sulphur dioxide, oxides of nitrogen	[2]	4
47	different speeds for different road types, e.g. urban, rural, dual carriageway, motorway with increasing contact with pedestrians then lower speed etc.	[6]	6
Band 1 ([1]–[2]) Knowledge and basic understanding.			
Band 2 ([3]–[4]) Relevant knowledge and good understanding.			
Band 3 ([5]–[6]) Good knowledge and thorough understanding.			

48 Candidates will make reference to pedestrian **and** motorist use of visibility, observation and anticipation when using the road. [12]

Band 1 ([0]–[4])

some knowledge/basic understanding.

Band 2 ([5]–[8])

Relevant knowledge/good understanding.

Band 3 ([9]–[12])

Good knowledge/thorough understanding.

Section B

100

Total

120

**AVAILABLE
MARKS**

12



Rewarding Learning

General Certificate of Secondary Education

2010

Motor Vehicle and Road User Studies

Paper 1
Higher Tier

[G6803]

WEDNESDAY 19 MAY, MORNING

**MARK
SCHEME**

Section A

			AVAILABLE MARKS
1	cycle lane	[1]	1
2	slowing down or stopping	[1]	1
3	1.6 mm	[1]	1
4	(a) washer water	[1]	
	(b) damage engine/crack cylinder block	[1]	2
5	(a) 50 m	[1]	
	(b) phone police on emergency phone	[1]	2
6	tailgating/lane hogging/no signals/lane weaving going too slow/driving with no lights/ not using dipped headlights etc.	[3]	3
7	near a junction/entrance to a school/ on a // line/on a footpath etc.	[3]	3
8	any two from: address, health etc.	[2]	2
9	any three from: bends, horses, tractors, muck on roads etc.	[3]	3
10	any three from: switch off ignition, remove key, chock wheels, put on handbrake etc.	[3]	3
11	(a) air bag could injure child	[2]	
	(b) over 21, full licence, 3 years experience	[3]	5

			AVAILABLE MARKS
12	Advantage: any two from: quiet, non polluting, clean, regular, cheap etc.	[2]	
	Disadvantage: any two from: confined to routes with wires/rails cannot overtake, passengers board in middle of road etc.	[2]	4
13	(a) 8.8 miles	[1]	
	(b) roundabout	[1]	
	(c) junction 9 17 miles	[2]	
	(d) junction 15	[1]	5
14	(a) any two from: cuts, bulges, glass/objects etc.	[2]	
	(b) harsh acceleration/braking etc.	[1]	3
15	(a) excess speed/surface water/worn tyres etc.	[2]	
	(b) excess speed, lack of concentration, distractions etc.	[2]	4
16	(a) The gearbox to select gears The clutch to disengage the drive	[2]	
	(b) Mechanical system handbrake – operates on rear wheels Hydraulic system footbrake – operates on all four wheels	[2]	6
17	(a) 17.1 hidden dip/dead ground 17.2 frost in winter	[2]	
	(b) pull in to left if approaching car is overtaking	[1]	3

			AVAILABLE MARKS
18	18.1	maximum speed	
	18.2	minimum speed	
	18.3	staggered junction	
	18.4	two way traffic crossing one way street	
	18.5	dual carriageway ends	
	18.6	wild animals	[6]
Section A			57

		AVAILABLE MARKS
23	<p>(i) cylinder head (ii) cylinder (iii) block (iv) piston (v) crankshaft (vi) sump</p>	6
24	<p>Traffic noise: candidates will refer to measures taken to minimise impact of noise on local population. Visual impact; candidates will refer to measures such as tree planting, to materials used etc. to minimise impact on landscape. Heritage and conservation: candidates will refer to efforts taken to preserve heritage and/or wildlife.</p>	9
25	<p>(a) commit an offence involved in an accident vehicle not roadworthy etc.</p>	2
	<p>(b) D/L Insurance MOT</p>	3
	<p>(c) Licence of supervising driver</p>	1
	<p>(d) produce at a nominated police station within 5 days</p>	2
	<p>(e) warning fixed penalty report for prosecution (any two correct)</p>	2
26	<p>(a) to increase the voltage</p>	1
	<p>(b) distributor delivers spark to each cylinder in turn by high tension leads</p>	2
	<p>(c) electrical connections battery terminals security of battery electrolyte level drive belt plug leads etc (any three correct)</p>	3
		6

		AVAILABLE MARKS
<p>31 Candidates will make reference to pedestrian and motorist use of visibility, observation and anticipation when using the road.</p> <p>Band 1 ([0]–[4]) Some knowledge, basic understanding. Quality of written communication basic.</p> <p>Band 2 ([5]–[8]) Relevant knowledge, good understanding. Quality of written communication satisfactory.</p> <p>Band 3 ([9]–[12]) Good knowledge, thorough understanding. Quality of written communication good/very good.</p>	[12]	12
<p>32 Candidates will make reference to new measures such as lowering drink/driving limits, increased penalties etc. They will refer to means of enforcement and education campaigns.</p> <p>Band 1 ([0]–[4]) Some knowledge, basic understanding. Quality of written communication basic.</p> <p>Band 2 ([5]–[8]) Relevant knowledge, good understanding. Quality of written communication satisfactory.</p> <p>Band 3 ([9]–[12]) Good knowledge, thorough understanding. Quality of written communication good/very good.</p>	[12]	12

33 Candidates will refer to special rules which apply to motorways regarding speed, classes of vehicles/drivers, joining and leaving a motorway and use of motorway facilities, e.g. hard shoulder/telephones or services areas. They will refer to the dangers of speed, volume of traffic, lane discipline etc.

Band 1 ([0]–[4])

Some knowledge, basic understanding.
Quality of written communication basic.

Band 2 ([5]–[8])

Relevant knowledge, good understanding.
Quality of written communication satisfactory.

Band 3 ([9]–[12])

Good knowledge, thorough understanding.
Quality of written communication good/very good.

[12]

**AVAILABLE
MARKS**

12

Section B

123

Total

180

