

GCSL

**Motor Vehicle and
Road User Studies**

Summer 2009

Mark Schemes

Issued: October 2009

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

MARK SCHEMES (2009)

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
2009**

Motor Vehicle and Road User Studies

Paper 1
Foundation Tier

[G6802]

MONDAY 11 MAY, MORNING

**MARK
SCHEME**

Section A

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

**AVAILABLE
MARKS**

20 × [1]
Section A

20
20

Section B

			AVAILABLE MARKS
21	Down a steep hill	[1]	1
22	Reduced visibility	[1]	1
23	Cover note	[1]	1
24	Any from: Cuts down CO ₂ emissions, help save the planet, encourages car manufacturers to produce cleaner engines, drivers choice, etc.	[2]	2
25	Driving under a bridge etc.	[1]	1
26	Any two from: Reactions are slower, perception poorer, might fall asleep, more careless, less alert, etc.	[2]	2
27	Single track – one lane Single carriageway – two lanes	[1]	1
28	Check both tyres on the same axle, wait until cool	[1]	1
29	To legally keep the car off the road without tax	[1]	1
30	Lead is poison/pollutant, etc.	[1]	1
31	Distance = time × mph = 22 × 60/60 = 22 miles	[1]	1
32	(a) Any three from: Washer water, brake fluid, power steering, battery	[3]	4
	(b) To force water around the system	[1]	
33	Any two from: Road painting/markings, shiny bitumen, oil, petrol/diesel spillages, dust, loose ground, leaves, snow, frost.	[2]	2
34	(a) Any two from: LGV, buses, vehicles towing trailers	[2]	4
	(b) Any two from: Agricultural vehicles/tractors, cyclists, motorcycles under 50 cc, oversized loads, invalid carriages	[2]	
35	(a) Any three from: Tax, insurance, M.O.T., licence, maintenance	[3]	5
	(b) Any two from: Cost, date of expiry, engine size, car make, length of period 6/12 months, receipt number	[2]	

			AVAILABLE MARKS
36	Any four from: Eradicate bends, straighter roads, earth bank, barriers, anti-skid surfaces (shell grip) junctions/bends, improved lighting, signage, etc.	[4]	4
37	Italy	[1]	1
38	CAR advantage – room for 4, dry, comfortable, convenient, etc.	[1]	
	CAR disadvantage – high cost, maintenance, etc.	[1]	
	M/C advantage – cheap, easy to run, flexible, manoeuvrable, etc.	[1]	
	M/C disadvantage – cold, wet, open to elements, vulnerable, requires secure parking, etc.	[1]	4
39	(a) Buy a smaller engined car, more fuel efficient engine, less polluting, lower insurance group, electric vehicle, buy motorcycle, drive gently, etc.	[2]	
	(b) Mile/time = mph 105/2.5 = 42	[1]	3
40	(a) Police, fire, ambulance	[3]	
	(b) Any two from: Switch off engine, apply handbrake, check wheels, etc.	[2]	5
41	Breathing Bleeding Consciousness	[3]	3
42	(a) Allows both up, down and rotational movement	[2]	
	(b) (i) coil	[1]	
	(ii) high tension lead	[1]	
	(iii) distributor	[1]	
	(iv) spark plug	[1]	6
43	(a) Drum brakes shoes press outwards against drum	[1]	
	Disc brakes Pads press inwards onto a spinning disc	[1]	
	(b) Can steer with control under heavy braking, brakes don't lock	[1]	3
44	Fig. 44.1 one way traffic	[1]	
	Fig. 44.2 ahead only	[1]	
	Fig. 44.3 junction or bend ahead	[1]	
	Fig. 44.4 T-junction with priority over vehicles from the right	[1]	4
45	bhp – brake horse power	[1]	
	LGV – large goods vehicle	[1]	
	RTA – road traffic accident	[1]	
	mpg – miles per gallon	[1]	4

		AVAILABLE MARKS
46	(a) To make sure it is safe to manoeuvre.	[1]
	(b) Any two from: When moving off, changing direction, overtaking, turning, etc.	[2]
47	Any two from: Signs, lighted signs, matrix, repeater signs, signs with high visibility backgrounds, signs painted on road surfaces, etc.	[2]
48	(a) Motorcyclists between two lanes, traffic close together, etc.	[2]
	(b) Reduce congestion/pollution, improve traffic flow, save time/money	[2]
	(c) Misted windows, slippery surfaces, increased care to be taken	[2]
49	Any two from: Carycot, child seat, child harness, booster seat/cushion	[2]
50	Any two from: Crossing a road you are turning into, zebra crossing, etc.	[2]
51	(a) Give way, drive within speed limits, hold back, signal in good time, etc.	[2]
	(b) You will cause fewer accidents, less congestion, discourage/prevent road rage, etc.	
	Band 1 ([1]–[2]) Some knowledge, basic understanding.	
	Band 2 ([3]–[4]) Relevant knowledge, good understanding.	
	Band 3 ([5]–[6]) Good knowledge, thorough understanding.	[6]
52	Why young, impetuous, take risks, dare, Show off. Shown to have more accidents, Costs insurance then passed to young drivers, etc.	
	How hold back be courteous take time drive slowly within speed limits anticipate other pedestrians/drivers exercise care in poor weather, poor visibility and poor surface conditions	

Band 1 ([0]–[4])

Some knowledge, basic understanding.

Band 2 ([5]–[8])

Relevant knowledge, good understanding.

Band 3 ([9]–[12])

Good knowledge, thorough understanding.

[12]	12
Section B	100
Total	120

**AVAILABLE
MARKS**



Rewarding Learning

**General Certificate of Secondary Education
2009**

Motor Vehicle and Road User Studies

Paper 1
Higher Tier

[G6803]

MONDAY 11 MAY, MORNING

**MARK
SCHEME**

Section A

			AVAILABLE MARKS
1	Down a steep hill	[1]	1
2	Cover note	[1]	1
3	Any from: Cuts down CO ₂ emissions, help save the planet, encourages car manufacturers to produce cleaner engines, drivers choice, etc.	[2]	2
4	Driving under a bridge, overhanging trees/hedges Turning left	[2]	2
5	Any two from: Reactions are slower, perception poorer, more careless, less alert, might fall asleep, etc.	[2]	2
6	Single track – one lane Single carriageway – two lanes	[2]	2
7	To legally keep the car off the road without tax	[1]	1
8	Distance = time × mph = 22 × 60/60 = 22 miles	[1]	1
9	(a) Any three from: Washer water, brakes, power steering, battery, gear box oil	[3]	
	(b) To force water around the system	[1]	
	(c) To maintain the correct working temperature	[2]	6
10	(a) Any three from: Tax, insurance, M.O.T., maintenance	[3]	
	(b) Any two from: Cost, date of expiry, engine size, car make, length of period 6/12 months, receipt number, date of purchase	[2]	5
11	Make sure you get plenty of rest before the journey Get plenty of fresh air Keep off motorways when possible Make regular stops, etc.	[2]	2
12	Licence, M.O.T., insurance, tax book	[3]	3
13	Injury to third party Damage to third party property Damage to other vehicles	[2]	2
14	When involved in an accident At a red traffic light When signalled to do so by a police officer/crossing patrol At a pedestrian crossing if pedestrian has right of way, etc.	[3]	3

			AVAILABLE MARKS
15	Reduce speed Use eco friendly fuel Servicing vehicle regularly Gentle acceleration, etc.	[2]	2
16	In a one way street When vehicle in front is turning right In slow moving queues When approaching a motorway slip road and traffic on main carriageway is moving slower	[3]	3
17	bhp – brake horse power LGV – large goods vehicle RTA – road traffic accident mpg – miles per gallon	[1] [1] [1] [1]	4
18	(a) Narrow lanes, motorcyclists between two lanes, traffic close together, misted window, etc. (b) Reduce congestion/pollution, improve traffic flow, save time/money (c) Misted windows, slippery surface, increased care to be taken	[2] [2] [2]	6
19	(a) Allows both up/down and rotational movement (b) (i) Coil (ii) High tension lead (iii) Distributor (iv) Spark plug	[2] [1] [1] [1] [1]	6
20	Fig. 20.1 one way traffic Fig. 20.2 ahead only Fig. 20.3 junction or bend ahead Fig. 20.4 T-junction with priority over vehicles from right	[1] [1] [1] [1]	4
Section A			58

Section B

			AVAILABLE MARKS	
21	(a)	In an emergency	[1]	3
	(b)	Exit vehicle by passenger door, stand on grass verge, use hazard warning lights, etc.	[2]	
22	(a)	Any five from: Jack and wheelbrace, basic tool kit, torch, petrol can, blanket/rug, map, warning triangle, spare bulbs, first aid kit, jump leads, cable ties/tape, etc.	[5]	7
	(b)	Any two from: Warning triangle, first aid kit, set of spare bulbs, etc.	[2]	
23	(a)	Get in lane, check mirror Reduce speed Watch for traffic from the right Signal	[3]	11
	(b)	Give way to traffic from the right	[2]	
	(c)	Stay in inside lane	[1]	
	(d)	Same as ordinary roundabouts	[2]	
	(e)	Signal right on approach Continue past exit before yours then signal left	[3]	
	(f)			
24	(a)	Faulty exhaust Misuse of horn LGV in urban areas, etc.	[3]	6
	(b)	Good maintenance	[1]	
	(c)	Through roads avoiding built up areas, by-passes, etc.	[2]	
25	25.1	Master cylinder to provide the pressure to send fluid to the wheel cylinders	[1] [2]	15
	25.2	Vacuum servo to provide additional power to the master cylinder	[1] [2]	
	25.3	Disc pad For use with disc brakes	[1] [2]	
	25.4	Brake shoe to fit inside the brake drum	[1] [2]	
	25.5	Brake drum to create a stopping surface with the brake shoe	[1] [2]	
26		Service the car Check: battery, antifreeze, lights/wipers, washers, etc.	[4]	4
27	(a)	Any type of hazard ahead – two examples Two types of warning – hazard lights/warning triangle/car horn, etc.	[6]	8
	(b)	Drive/go to nearest emergency telephone	[2]	

		AVAILABLE MARKS	
28	(a) Check tread depth indicator	[2]	6
	(b) Check surface and sidewall of tyre for damage Check for lumps, bulges or cracks	[2]	
	(c) Check manufacturers recommended pressure make sure they are not over or under inflated	[2]	
29	(a) Some form of physical or verbal assault by one driver on another When a driver becomes enraged by the actions of another driver, etc.	[3]	6
	(b) Any three from: Forget home/work worries Plan your journey Use in-car entertainment Adopt a positive mental attitude Be courteous and calm Don't retaliate, etc.	[3]	
30	Any two from: Dazzle from headlights both from behind and oncoming Less vision/vision restricted by range of headlights Tiredness Overtaking is more difficult, etc.	[2]	4
	Description of how to minimise each	[2]	
31	$300 \div 38 \times \pounds 4.85 \times 4 = \pounds 153.16$	[2]	5
	$300 \div 8 \times 68p \times 4 = \pounds 102$	[2]	
	$\pounds 153.16 - 102 = \pounds 51.16$	[1]	
32	(a) Test required in Great Britain after 3 years; 4 years in Northern Ireland Test carried out by approved garages in Great Britain; carried out in DVLNI test centres in Northern Ireland; Northern Ireland – appointment required	[2]	5
	(b) Any three from: emissions, electrical equipment, brakes, tyres, steering, suspension, seat belts, etc.	[3]	
33	(a) Being able to observe at extreme edges of field of view	[3]	6
	(b) Not seeing a pedestrian on the footpath, etc.	[2]	
	(c) Being able to read a car number plate at 20 metres/66 feet	[1]	

		AVAILABLE MARKS
34	<p>Candidates will refer to the road user, the environment and the vehicle and will mention efforts through education, enforcement and engineering made by such bodies as police, DoE, road safety organisations, RAC/AA, driving schools, IAM, Fire Service, etc.</p> <p>Mark Band 1 ([0]–[4]) Some Knowledge, basic understanding.</p> <p>Mark Band 1 ([5]–[8]) Relevant Knowledge, good understanding.</p> <p>Mark Band 1 ([9]–[12]) Good Knowledge, thorough understanding.</p>	[12] 12
35	<p>Candidates will refer to rules and dangers associated with entering/leaving motorway, prohibited vehicles, signals, lane discipline, speed, hard shoulder/breakdowns, overtaking, stopping, etc.</p> <p>Mark Band 1 ([0]–[4]) Some Knowledge, basic understanding.</p> <p>Mark Band 1 ([5]–[8]) Relevant Knowledge, good understanding.</p> <p>Mark Band 1 ([9]–[12]) Good Knowledge, thorough understanding.</p>	[12] 12
36	<p>Why young, impetuous, take risks, dare, Show off. Shown to have more accidents, Costs insurance then passed to young drivers, etc.</p> <p>How hold back be courteous take time drive slowly within speed limits anticipate other pedestrians/drivers exercise care in poor weather, poor visibility and poor surface conditions</p> <p>Mark Band 1 ([0]–[4]) Some Knowledge, basic understanding.</p> <p>Mark Band 1 ([5]–[8]) Relevant Knowledge, good understanding.</p> <p>Mark Band 1 ([9]–[12]) Good Knowledge, thorough understanding.</p>	[12] 12
Section B		122
Total		180

