



General Certificate of Secondary Education
January 2019

Motor Vehicle and Road User Studies

Unit 1: Motor Vehicle and Road User Theory

Higher Tier

[GMV12]

TUESDAY 15 JANUARY, AFTERNOON

**MARK
SCHEME**

General Marking Instructions

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 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 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.

			AVAILABLE MARKS
1	Autobahn	[1]	1
2	Any one from: Windscreen, lights, number plate, mirrors	[1]	1
3	(a) 1. 35	[1]	
	2. 80	[1]	
	(b) Any two from: Slower reactions, loss of control, misjudgments, blurred vision, loss of co-ordination, poor awareness	[2]	
	(c) Any two from: Fine, imprisonment, disqualification	[2]	6
4	(a) Any three from: Laminated safety glass, anti-burst locks, crumple zones, padded steering wheel, safety cage, collapsible steering column, side impact bars, bumpers, head rests/restraints, padded dashboard, recessed handles, safety mirrors, seat belts, airbags	[3]	
	(b) switch off front passenger airbag	[1]	4
5	(a) Any two from: Self regulating, no traffic lights, low maintenance, ease of route, free flowing traffic	[2]	
	(b) to reverse into a parking space against the kerb between two parked cars	[2]	4
6	(a) Any two from: Reduces the number of cars in the city, increases the use of public transport, reduces pollution, reduces accidents	[2]	
	(b) Any two from: Overtake, park or stop, reverse	[2]	
	(c) phone the police from the next emergency phone	[1]	5
7	Any five from: Sheep crossing the road, on a bend, bus shelter, man standing, roads either side of main road, parked cars	[5]	5

			AVAILABLE MARKS		
8	(a) 8.1	national speed limit	[1]	9	
	8.2	no entry	[1]		
	8.3	no through road	[1]		
	8.4	road works	[1]		
	8.5	chippings	[1]		
	8.6	staggered crossroads	[1]		
(b)	(i)	30 mph	[1]		
	(ii)	street lights/built up area	[1]		
(c)	view not blocked by high-sided vehicles		[1]		
9	(a)	Any three from: Give way to traffic already on the motorway, match your speed to traffic already on the motorway, stay on the slip road until it is safe to join motorway, remain in left lane long enough to adjust speed.	[3]		8
	(b)	Any three from: Pull onto hard shoulder, try to stop near an emergency telephone, leave vehicle by passenger door, keep yourself and passengers away from the carriageway, go to the nearest phone, return to vehicle and wait for assistance, face on-coming traffic	[3]		
	(c)	Bus, towing a trailer, LGV	[2]		
10	(a)	Education/enforcement/warning/school visits/roadshows/checkpoints	[3]	5	
	(b)	Any two from: Inexperienced, take risks, drive fast, impetuous, show off, peer pressure	[2]		
11	(a)	V5 form, driving licence, tax, MOT, insurance	[5]	10	
	(b)	third party only, third party fire & theft, fully comprehensive	[3]		
	(c)	fully comprehensive	[1]		
	(d)	cost/expensive	[1]		
12	(a)	Any three from: Age, gender, type of licence, start date, D.O.B, health declaration	[3]	8	
	(b) (i)	Any two from: change of address, change of marital status/ change name, medical condition	[2]		
		(ii)	Any two from: Change of colour, change of engine, SORN, selling		[2]
	(c)	4 years	[1]		

		AVAILABLE MARKS
13 (a)	Any two from: Nitrous oxide, carbon dioxide, carbon monoxide, hydrocarbons, sulphur dioxide	[2]
(b)	Any one from: Motorway, traffic queues, cities or towns, garages	[1]
(c)	Any two from: Cleaner, quiet, cheaper to tax, more economical	[2]
		5
14 (a)	Any two from: Penalty points for not wearing a seat belt or for using a hand-held mobile phone, on the spot fixed penalty fines, MOT disc displayed on windscreen	[2]
(b)	Any two from: Effects of traffic noise, effects on agriculture, impact on communities, air pollution, visual impact, effects on wildlife, disruption during construction	[2]
		4
15 (a)	$1 : 24 = 25$ [1] 5000 ml divided by 25 = 200 ml/20 cl Ans 200 ml [1]	[2]
(b)	550 km divided by 50 litres = 11 km/l	[1]
(c)	$£475 \times 34 = £16\,150$ [1] $£19\,000 - £16\,150 = £2850$ Ans £2850 [1]	[2]
		5
16 (a)	Any two from: Shop for insurance, free parking, lower tax band, DIY clean	[2]
(b)	drive gently, brake gently	[2]
(c)	Any one from: Parking, modifications, fines, cleaning, garaging	[1]
		5
17	$£190 \div 12 = £15.83$ $£648 \div 12 = £54.00$ $£360 \div 12 = £30.00$ £20.00 $18000 \div 36 = 500 \text{ gals} \times 4.55$ = 2275 litres $2275 \times 135 = 3071.25$ $3071.25 \div 12 = £255.9375$ Total = 375.7675 i.e. 375.77	[8]
		8

			AVAILABLE MARKS	
18	(a)	Any two from: Wave down/direct traffic, put on hazard warning lights, warning triangle	[2]	9
	(b)	switch off ignition, put handbrake on, chock the wheels	[3]	
	(c)	Any four from: Casualty looks pale, faint/dizzy, shallow breathing, sick/vomits, thirsty, weak but quick pulse	[4]	
19	(a)	1. ignition	[1]	8
		2. starting	[1]	
		3. cooling	[1]	
		4. suspension	[1]	
(b)	sound	[1]		
(c)	induction, compression, exhaust	[3]		
20	(a)	1. HT lead	[1]	9
		2. coil	[1]	
		3. battery	[1]	
		4. distributor	[1]	
		5. spark plug	[1]	
(b)	air, oil, fuel	[3]		
(c)	to prevent dust/dirt particles entering the engine	[1]		
21	(a)	to allow one wheel to turn faster or slower than the other when cornering	[1]	9
	(b)	fumes from exhaust could cause breathing problems	[1]	
	(c)	to check the oil level in the engine	[1]	
	(d)	Any three from: Electrical connections, battery terminals, security of battery, electrolyte level	[3]	
	(e)	thermostat, pressure cap	[2]	
	(f)	to obtain optimum performance	[1]	
22	(a)	Lubrication system	[1]	10
	(b)	1. (Inlet and exhaust) valves	[1]	
		2. piston	[1]	
		3. connecting rod	[1]	
		4. strainer	[1]	
		5. sump	[1]	
		6. oil filter	[1]	
		7. crankshaft	[1]	
		8. camshaft	[1]	
(c)	Any one from: Cools engine surfaces, removes dust dirt particles	[1]		

