

**General Certificate of Secondary Education** 

2009

# Student Bounty.com

# **Motor Vehicle and Road User Studies**

# Paper 1 Foundation Tier

[G6802]

#### **MONDAY 11 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 fifty-two 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 thirty-two questions. Write your answers in the spaces provided in this question paper.

You are provided with an insert for use with Questions 44 and 48 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 51 and 52. 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.

Question Number         Marks           1-20         21           22         23           24         25           26         27           28         29           30         31           32         33           34         35           36         37           38         39           40         41           42         43           44         45           46         47           48         49           50         51           52         52	For Examiner's use only		
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51		Marks	
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	1–20		
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	21		
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	22		
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	23		
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	24		
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	25		
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	26		
29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	27		
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48 49 50 51			
49 50 51			
50 51			
51			
52			
	52		

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 large goods vehicle on a dual carriageway in mph is
	A	30.
	В	40.
	C	50.
	D	60.
	E	70.
2	Wh	ich of the following statements about alcohol is <i>false</i> ?
	A	It is addictive.
	В	It can impair vision.
	C	It slows reactions.
	D	It is a depressant.
	Е	It is a stimulant.
3	The	e legal driving limit for alcohol in breath is
	A	$25\mu g/100ml$ .
	В	$30\mu g/100ml$ .
	C	$35\mu\text{g}/100\text{ml}$ .
	D	$40\mu g/100ml$ .
	Е	$45 \mu\text{g}/100 \text{ml}$ .

4	Ac	continuous double white line along the centre of a road means
	A	do not cross these lines.
	В	do not overtake.
	C	dangerous bend.
	D	overtake with caution.
	Е	junction ahead.
5	Ro	ad signs giving negative instructions are usually
	A	circular with a red insert.
	В	circular with a red border.
	C	triangular with a red border.
	D	triangular with a blue border.
	Е	rectangular with a blue insert.
6	Wł	nich one of the following is <b>not</b> a factor in determining a driver's reaction time?
	A	old age
	В	age of vehicle
	C	alcohol
	D	tiredness
	Е	anxiety

7	A f	Plashing green man at a pelican crossing means a motorist must
	A	stop.
	В	prepare to go.
	C	go.
	D	go if the crossing is clear.
	Е	wait until the light turns green.
8	Wł	nich one of the following is <b>not</b> recommended in the fog code?
	A	reduce speed.
	В	use dipped headlights.
	C	follow someone else's tail lights.
	D	allow more time for your journey.
	Е	use rear fog lamps/lights.
9		e amount the insured has to pay before the insurance company makes payment in any im is
	A	indemnity.
	В	excess.
	C	personal liability.
	D	premium.
	Е	knock for knock.

10	Wh	ich of the following liabilities is <b>not</b> included in Third Party insurance cover?
	A	injury to passengers
	В	accidents caused by passengers
	C	damage caused by fire
	D	injuries to other people
	E	damage to other people's property caused by the insured vehicle
11	The	e only fluid level required by law to be maintained in a motor vehicle is
	A	oil.
	В	brake fluid.
	C	power steering fluid.
	D	water in radiator.
	Е	water in windscreen washer.
12	The	e vehicle test (MOT) tests which one of the following?
	A	engine oil viscosity
	В	strength of anti-freeze in the cooling system
	C	acid level in the battery
	D	condition of in-line fuses
	Е	exhaust gas emissions

- 13 A car travelling at 55 mph will cover a distance of 165 miles in
  A ½ hour.
  B 1 hour.
  - C  $1\frac{1}{2}$  hours.
  - D 2 hours.
  - E 3 hours.
- 14 On a journey of 100 miles, how many gallons of petrol are used by a car with a fuel consumption of 40 mpg?
  - A  $\frac{1}{2}$
  - B  $1\frac{1}{2}$
  - C 2
  - D  $2\frac{1}{2}$
  - E 3
- 15 The first priority on arrival at the scene of a serious traffic accident would be to
  - A send for the emergency services.
  - B look for help.
  - C protect the accident scene.
  - D secure the vehicles.
  - E check for injuries.

16	In a	a four-stroke engine, if both valves are closed and the piston is rising, the engine is on the
	A	power stroke.
	В	induction stroke.
	C	exhaust stroke.
	D	transfer stroke.
	Е	compression stroke.
17	The	e connecting rod connects the
	A	big ends to the crankshaft.
	В	pistons to the crankshaft.
	C	cylinder head to the cylinder block.
	D	sump to the cylinder block.
	E	crankshaft to the flywheel.
18	In v	which of the following systems would you find the differential?
	A	transmission
	В	electrical
	C	braking
	D	suspension
	Е	exhaust

19		est cars have batteries which produce 12 volts. To create a suitable spark at the spark plug is must be boosted to approximately
	A	30 volts.
	В	300 volts.
	C	3000 volts.
	D	30 000 volts.
	Е	300 000 volts.
20		nich one of the following allows one rear wheel to turn faster than the other, when nering?
	A	universal joints
	В	back axle
	C	differential
	D	distributor
	Е	big end

# **Section B**

Examiner Only

Marks Remark

You must answer all thirty-two questions.

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

21 Where would you expect to find this sign?

Keep in low gear

Fig. 21.1

Name <b>one</b> disadvantage of a jet style helmet.	
What is the name given to a temporary insurance certificate?	
Explain briefly why vehicles now have an emissions tax.	

	_	
1		
	[2]	
Describe briefly the main difference between a single track road and a single carriageway.		
	[1]	
Describe how to check the pressure of a tyre you suspect to be under inflated, if all the tyres are warm.		
	[1]	
Why would a driver need to complete a SORN (Statutory Off Road Notification) document?		
	[1]	
	Describe briefly the main difference between a single track road and a single carriageway.  Describe how to check the pressure of a tyre you suspect to be under inflated, if all the tyres are warm.  Why would a driver need to complete a SORN (Statutory Off Road	Describe how to check the pressure of a tyre you suspect to be under inflated, if all the tyres are warm.  [1]  Why would a driver need to complete a SORN (Statutory Off Road Notification) document?

30	Explain briefly why lead was removed from petrol.	Examiner Only Marks Rema
1		
	22 minutes to get theremiles [1]	
2	(a) Apart from engine oil and coolant, name <b>three</b> engine fluid levels you could check on a motor vehicle.	
	1	
	2	
	<b>(b)</b> Explain briefly why the cooling system has a water pump.	
3	Apart from being wet, list <b>two</b> road surface conditions which could be hazardous for the motorcyclist.	
	1.	

34	(a)	Name <b>two</b> vehicles which are prohibited from using the third (outside lane of a motorway.	de) Ex Mai	aminer rks F	Only Remark
		1			
		2	[2]		
	(b)	List <b>two</b> vehicles not permitted on a motorway.			
		1			
		2	[2]		
25	(a)	Name three legal magningments when avening and maning a mater			
35	(a)	Name <b>three</b> legal requirements when owning and running a motor vehicle.			
		1			
		2			
		3	[3]		
	(b)	Apart from the registration number, name <b>two</b> items of information found on a vehicle's tax disc.			
		1			
		2	[2]		
36	List	four ways in which road engineers can improve the safety of roads.			
	1				
	2				
	3				
	4.		[4]		

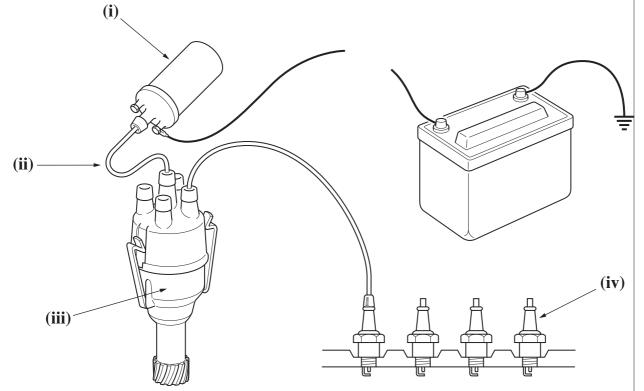
37	In which country would you find an autostrada?		Examiner Only  Marks Remark
		[1]	Warks Remark
38	List <b>two</b> advantages and <b>two</b> disadvantages of using a car and a motorcy as a means of transport.	/cle	
	Car advantage	[1]	
	Disadvantage	[1]	
	Motorcycle advantage		
	Disadvantage		
39	(a) List <b>two</b> ways you could reduce the cost of motoring.		
	1		
	2	[2]	
	(b) Calculate the average speed of a vehicle which travelled 105 miles in $2\frac{1}{2}$ hours.		
		[1]	

(a)	Name <b>three</b> services you could ask for after coming across the scene an accident.	e of
	1	
	2	
	3	
b)	Name <b>two</b> ways in which a vehicle can be made secure at an accidence.	nt
	1	
	2	[2]
	at is the order of priorities in First Aid known as BBC?	
-	at is the order of priorities in First Aid known as BBC?	
-		
-		
· -		
} .		
-		
} -		
} -		

42 (a) Describe briefly the function of a universal joint.

Examin	er Only
Marks	Remark

		[2]



The Car by E.F. Scott and B. Toby, published by Longman, 1978, ISBN 058222005X. © Pearson Education Ltd, publishers.

Fig. 42.1

**(b) Fig. 42.1** shows a car's charging system. Identify the parts marked **(i)–(iv)**.

(i) [
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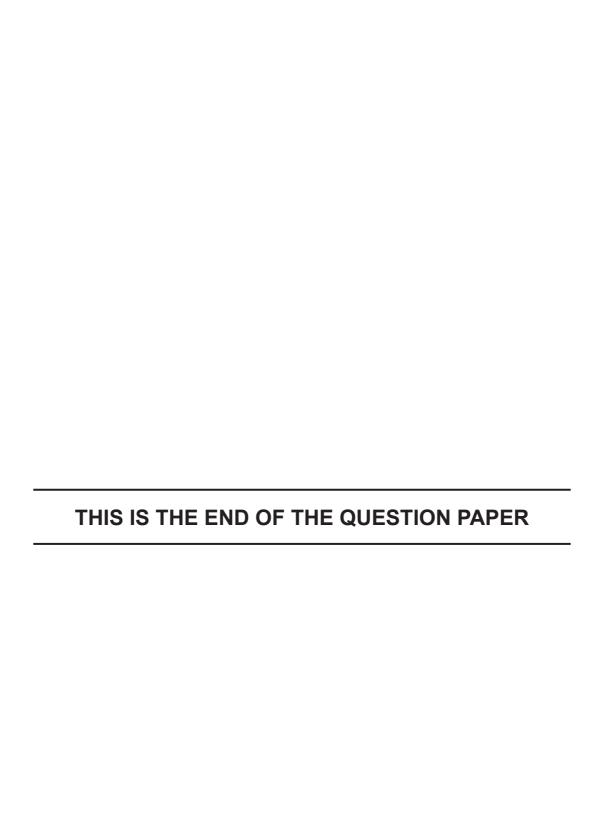
- (ii) \_\_\_\_\_\_ [1]
- (iii) \_\_\_\_\_\_[1]
- (iv) \_\_\_\_\_\_[1]

43	(a)	Describe briefly the action of drum and disc brakes.	Examiner Only  Marks Rema
		Drum brakes	
			[1]
		Disc brakes	
	<b>(b)</b>	Describe the main advantage of having ABS fitted.	
			[1]
44	Stu	dy the road signs on the insert sheet.	
•		the meaning of each of the road signs <b>Fig. 44.1–44.4</b> .	
	Fig	. 44.1	[1]
	Fig	. 44.2	[1]
	Fig	. 44.3	[1]
	Fig	. 44.4	[1]
45	Exp	plain the meaning of the following terms.	
	bhp		[1]
		V	
	LG		[1]

46	(a)	What is the purpose of the lifesaver check?	Examiner Only
		[1]	Marks Remark
	(b)	Outline briefly <b>two</b> occasions when you should use a lifesaver check.	
		[2]	
47		me <b>two</b> ways in which information about speed limits can be given to the	
	driv	ver.	
		[2]	
		[-]	

48	Stu	dy the photographs <b>Fig. 48.1–48.3</b> on the insert sheet.		Examine Marks	er Only Remark
	(a)	State two dangers in Fig. 48.1			
		1			
		2	[2]		
	(b)	Fig. 48.2			
		Give <b>two</b> reasons why car sharing is being encouraged because of the construction work on the nearby Westlink in Belfast.	ne		
		1			
		2	[2]		
	(c)	Fig. 48.3			
		State <b>two</b> difficulties a driver could face in this weather.			
		1			
		2	[2]		
49	Nar	me <b>two</b> examples of an "appropriate child restraint".			
	1				
	2		[2]		
50	Des	scribe <b>two</b> situations when motor vehicles must give way to pedestria	ns.		
	1				
	2		[2]		

51	(a)	Name <b>two</b> actions which could identify you as a courteous driver.		xaminer Only
		1		
		2	[2]	
	(b)	Explain briefly how being a courteous driver can make you a safer rouser.	oad	
			[6]	



# GCSE Motor Vehicle and Road User Studies 2009

# Paper 1 Foundation Tier

[G6802]

# For use with Question 44







Fig. 44.2



Fig. 44.3



Fig. 44.4

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#### For use with Question 48





Fig. 48.1

Fig. 48.2



Fig. 48.3

4419.02

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