Rewarding Learning

# Motor Vehicle and Road User Studies <br> Unit 1: Motor Vehicle and Road User Theory Foundation Tier 

[GMV11]
THURSDAY 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 questions.

## INFORMATION FOR CANDIDATES

The total mark for this paper is 120.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question. Quality of written communication will be assessed in question 52.

| For Examiner's <br> use only |  |
| :---: | :---: |
| Question <br> Number | Marks |
| $1-7$ |  |
| $8-16$ |  |
| $17-20$ |  |
| $21-30$ |  |
| $31-35$ |  |
| $36-39$ |  |
| $40-41$ |  |
| $42-48$ |  |
| $49-52$ |  |
| Total <br> Marks |  |

## Section A

Answer all questions.

1 Speed bumps, speed cushions, road narrowing and gateways are all considered
$\qquad$ measures. [1]

2 Motorway signs usually have white lettering on a $\qquad$ background.

3 The legal limit for a drink-driving offence is $\qquad$ mg of alcohol per 100 ml of blood.

4 The sign in Fig. 4.1 below means $\qquad$ . [1]


Fig. 4.1
© Crown copyright. Department of Transport. TSO

5

$$
0
$$

vehicle's wheels losing contact with the road because of excess surface
water.
vehicle's wheels losing contact with the road because of excess surface
water.

6 Red coloured road studs identify $\qquad$ [1]

Airbags, seat belts and side impact bars are all features of
$\qquad$ safety.
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8 Driver and Vehicle Agency Enforcement Officers drive vehicles with
$\qquad$ flashing lights.

9 Which one of the following should a vehicle use when driving in foggy conditions?

Side lights, No lights, Full beam, Dipped headlights.
$\qquad$

10 The speed limit for a bus on a motorway is $\qquad$ mph.

11 The legal tread depth for tyres on a motorcycle is $\qquad$ mm.

12 In Northern Ireland all vehicles over $\qquad$ years old must complete an annual MOT test.

13 In 1885 a man called Karl Benz produced the first $\qquad$ . [1]

14 $\qquad$ is the most expensive standing cost for a motorist.

15 Apart from bank loans, state one other method of financing the purchase of a vehicle.
$\qquad$ .

16 What is the name given to a wound caused by being struck by a blunt instrument?
$\qquad$ .

17 The differential is found in the $\qquad$ system.

18 Engine oil level can be checked using the $\qquad$ .

19 Inlet, outlet and $\qquad$ are the ports in a 2 -stroke engine.

20 Oil is stored in the $\qquad$ at the bottom of the engine.

## Section B

Answer all questions.

21 What is the name given to a motorway in Germany?
$\qquad$

22 What is the rule in the Highway Code for using a box junction?
$\qquad$

23 How could a colour blind driver recognise a red traffic light?
$\qquad$

24 What is the maximum speed for a car towing a trailer on a single carriageway?

25 Name the two components to which the gudgeon pin is attached.
1.
2. $\qquad$

26 (a) Describe the main difference between a pelican crossing and a zebra crossing.
(b) Name two engineering methods which could help a partially sighted or a hard of hearing pedestrian using a pelican crossing.
1.
2.

27 Apart from Fire and Rescue, name one other emergency service you could request when dialling 999.
$\qquad$

28 When should a front passenger air bag be switched off?
$\qquad$

29 Park and Ride schemes help ease congestion in cities. Suggest two benefits of such schemes.
1.
2.

30 Give two reasons why it makes sense to car share.
1.
2.
$\qquad$

31 (a) Apart from cost, what is the main difference between third party and fully comprehensive insurance?
(b) In motoring insurance, who is referred to as the 'proposer'?
$\qquad$

32 Give the meaning of the following initials:
MOT
PCV

33 Find a phrase in Group B to complete each sentence in Group A below. Place a circle around your answer.

Group A

| 1. The inlet manifold connects the | a $b l l l l l$ |
| :--- | :--- | :--- | :--- | :--- | :--- | [1]

- 

1. The inlet manifold connects the
a b c d e
2. The high tension lead connects the
a b c d e
3. The negative lead connects the
a b c d e
4. The big end bearing connects the
a b c d e

## Group B

a battery to the car body
b crankshaft to the connecting rod
c carburettor to the cylinder head
d drive shaft to the differential
e distributor to a spark plug

34 Name two categories of road user permitted to use a Toucan crossing.

1. $\qquad$
2. $\qquad$

35 Give the meaning of each of the road signs shown in Figs 35.1-35.6 below, as stated in the Highway Code.


Fig. 35.1


Fig. 35.4


Fig. 35.2


Fig. 35.5


Fig. 35.3


Fig. 35.6
$\qquad$
Fig. 35.2
Fig. 35.3
Fig. 35.4
Fig. 35.5
Fig. 35.6

36 Joe is eighteen years old and has been driving for one year. He drives a 1.6 L fuel injected, turbo powered two door saloon car which does $0-60 \mathrm{mph}$ in 7.4 secs.
Sarah is thirty five years old and has been driving for seventeen years.
She drives a 1.1 L fuel injected four door saloon which does $0-60 \mathrm{mph}$ in 13 secs.
They both need third party, fire and theft insurance from the same company.
(a) Who pays more for insurance?
$\qquad$
(b) Who would most need a higher excess?
$\qquad$
(c) Who would be a greater risk for the insurance company?
(d) Who would most likely have a no claims discount?
$\qquad$

37 (a) How far would a vehicle travel in forty minutes at a steady speed of 30 mph ?
$\qquad$ miles [1]
(b) What is the average speed of a car which travels 69 miles in one and a half hours?

38 (a) State three ways in which you could make an accident scene safe.
1.
2.
3.
(b) Explain what is meant by 'the B. B. C. of First Aid'.

B
B

C

39 Describe briefly the actions required to replace a vehicle's flat tyre.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

40 Examine Fig. 40.1 below carefully.

Fig. 40.1
© Crown copyright. Department of Transport. TSO
(a) Where would this sign be found?
$\qquad$
(b) Why would this sign be used there?
$\qquad$
(c) Name one traffic management device which might accompany this sign.
$\qquad$


41 Examine Fig. 41.1 below carefully.


Fig. 41.1

Describe two hazards in the photograph.

1. $\qquad$
$\qquad$
2. $\qquad$
$\qquad$

42 (a) Under what circumstances can an unauthorised person legally stop traffic?
$\qquad$
(b) Name three parts of a motor vehicle which must be cleared of snow before driving.
1.
2. $\qquad$
3.
(c) Name the only reason why a motorist should sound the horn.
$\qquad$

43 (a) Name two places where you must not stop and park.
1.
2. $\qquad$
(b) Why might a motorist drive with headlights on during the day?
$\qquad$

44 State the minimum age for driving the following vehicles:
Moped
Car
LGV

45 Name two ways in which traffic calming can make for a safer environment.

$$
1 .
$$

2. $\qquad$

46 (a) Name one advantage and one disadvantage of buying a new car.advantage
disadvantage
(b) Name one advantage and one disadvantage of buying a second hand car.
advantage
disadvantage

47 Name the three strokes of the four stroke engine which do not produce power.
1.
2.
3.

48 What is the main purpose of the following systems?

1. Transmission system $\qquad$
$\qquad$
2. Suspension system $\qquad$
$\qquad$

49 (a) Explain briefly why a vehicle on a motorway might require a police escort.
(b) Name three differences between a motorway and a dual carriageway.

1. $\qquad$
2. $\qquad$
3. 

(c) On a motorway, when would it be necessary for a driver to use a lifesaver check?
$\qquad$

50 (a) State two hazards found on rural roads which might not be encountered in towns or cities.
1.
2.
(b) Describe briefly how lying water on the road could be a danger to the motorist.
$\qquad$
$\qquad$

51 Inattention is a major contributory factor in many road traffic accidents. Describe briefly how drivers can reduce distractions while driving.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

52 Vehicles are becoming faster, more fuel efficient and safer. Discuss how a combination of vehicle engineering and driver behaviour can reduce accidents.
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