Rewarding Learning
General Certificate of Secondary Education

## Motor Vehicle and Road User Studies

# Paper 1 Foundation Tier 

[G6802]


WEDNESDAY 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 forty-eight 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 twenty-eight questions.
Write your answers in the spaces provided in this question paper.
You are provided with an insert for use with Questions $\mathbf{3 3}$ and $\mathbf{3 8}$ 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 47 and 48.
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.

| For Examiner's use only |  |
| :---: | :---: |
| Question Number | Marks |
| 1-20 |  |
| 21 |  |
| 22 |  |
| 23 |  |
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| 46 |  |
| 47 |  |
| 48 |  |
| 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 $\mathbf{2 5}$ minutes on this section.

1 The maximum speed limit for a car towing a caravan or trailer on a dual carriageway, in MPH, is

A 30 .
B 40 .

C 50.
D 60 .

E 70.

2 Which one of the following is permitted on a motorway?
A reversing on the carriageway
B stopping on the hard shoulder in an emergency
C exceeding 70 MPH
D driving with a provisional licence
E stopping on the central reservation in an emergency

3 The traffic sign in Fig. 3.1 below means
A dual carriageway ends.
B two way traffic.
C road narrows on both sides.

D give way to on-coming traffic.
E traffic emerging.


Fig. 3.1

4 The national speed limit in Northern Ireland, in MPH, is
A 30 .
B 40 .
C 50.
D 60 .

E 70.

5 A green flashing light is fitted to a
A "doctor on call" car.
B fire engine.
C police vehicle.
D road gritter.
E DOE road service vehicle.

6 Hazard warning lights should only be used when
A parked on double lines.
B stopped and temporarily causing an obstruction.
C travelling slowly looking for directions.
D driving in falling snow.
E giving acknowledgement to another driver.

7 Which one of the following statements is true?
A A vehicle can only reverse on a motorway on the hard shoulder
B Driver and Vehicle Agency enforcement officers have powers to stop vehicles
C The legal limit of alcohol is $107 \mathrm{mg} / 100 \mathrm{ml}$ of blood
D A car must not have a mixture of radial and cross-ply tyres
E Traffic signs which give orders are usually triangular in shape

8 A box junction would not be found at a
A light-controlled junction.
B school entrance.
C level crossing.
D roundabout.

E cycle crossing.

9 The reflective studs between a motorway and its slip road are
A amber.
B white.

C green.
D red.

E blue.

10 If you are travelling on a motorway and a red cross is displayed above the hard shoulder, you should

A use this lane as a running lane.
B leave the motorway at the next exit.
C reduce speed to national speed limit.
D not use this lane.
E put on your hazard warning lights.

11 A person applying for car insurance is called the
A proposer.
B policyholder.
C agent.
D broker.
E underwriter.

12 Which one of the following is not included in Third Party insurance cover?
A injuries to passengers
B damage to another person's property
C damage to insured vehicle
D injuries to pedestrians
E damage to other vehicles

13 Which one of the following is not a traffic management technique?
A bus lanes
B speed bumps
C roundabouts
D seat belt regulations
E one-way streets

14 Which one of the following is not a running cost for a vehicle?
A fuel
B servicing and repairs
C MOT test
D oil

E tyres

15 A car bought for $£ 16,500$ and sold three years later for $£ 9,000$ had an average annual depreciation of

A $£ 7,500$.
B $£ 5,000$.
C $£ 4,500$.
D $£ 2,500$.

E £1,250.

16 If a road casualty stops breathing, approximately how long, in minutes, will it take for brain damage or death to occur?

A 1 to 2
B 3 to 4
C 5 to 6
D 7 to 8
E 9 to 10

17 Connecting rods connect the
A pistons to the crankshaft.
B cylinder head to the cylinder block.
C crankshaft to the flywheel.
D big ends to the crankshaft.
E sump to the cylinder block.

18 A manifold is part of which one of the following systems?
A lubrication
B braking
C cooling
D electrical
E fuel

19 An electrolyte is found in the
A radiator.
B master cylinder.
C fuel tank.
D battery.
E windscreen washer bottle.

20 Fuel mixture enters a two-stroke engine through the
A exhaust port.
B inlet port.
C piston port.
D crankshaft port.
E transfer port.

## Section B

## You must answer all twenty-eight questions.

You should spend approximately 65 minutes on this section.
21


Fig. 21.1
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What signal is being given by the motorcyclist in Fig 21.1 above?

22 State the minimum vehicle tyre tread depth over the centre three quarters of the tyre for a car.

23 (a) Name one vehicle fluid level which is examined in the MOT test.
(b) What damage could be caused to an engine without antifreeze in the cooling system during winter?
$\qquad$
$\qquad$
$\qquad$

24 (a) On a dual carriageway, how far behind a broken down vehicle should a warning triangle be placed?
(b) What action should you take when finding a piece of debris on the motorway?
$\qquad$

25 (a) List two reasons why a pedestrianised street is safe for pedestrians.

1. $\qquad$
2. 

(b) Name two vehicles which are permitted into a pedestrianised street at certain times only.

1. $\qquad$
2. 

26 List two advantages of a park and ride system.

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

27 (a) If $100 \mathrm{kph}=62 \mathrm{mph}$, calculate 50 mph in kph .
$\qquad$ kph
(b) How much petrol and oil would be required to fill a 5 litre moped fuel tank if it is marked 24:1?

Petrol
Oil $\qquad$

28 Name three actions you could take to make a vehicle safe following an

29 Name two reasons why traffic is calmed on urban streets.

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

30 List three hazards which a motorist might meet when driving on country roads.

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

31 Where on a city road might a cyclist feel safer?

32 (a) State why a rear-facing baby seat in the front passenger seat of a vehicle must not be used if the seat is protected by an active frontal air bag.
$\qquad$
$\qquad$
(b) Name three legal requirements for the person who supervises a learner driver.

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

33 Study the road signs on page 1 of the insert sheet.
Explain the meaning of each of the road signs in Fig. 33.1 to Fig. 33.6.
Fig. 33.1
Fig. 33.2
Fig. 33.3
Fig. 33.4
Fig. 33.5
Fig. 33.6

34 (a) Name the medical condition and treatment for a road traffic accident victim wandering at or near the scene in a dazed or confused manner.

Medical condition
Treatment
(b) Explain why it is important not to give this patient anything to drink.
$\qquad$
(c) Give two reasons for placing an unconscious and breathing casualty in the recovery position.

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

35 (a) How would a driver notice the effects of unbalanced front wheels at speed?
$\qquad$
(b) Suggest two reasons why a vehicle with underinflated tyres could be dangerous.

1. $\qquad$
2. 

(c) Apart from being caught, name two dangers associated with driving above the speed limit.

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

36 State two reasons why a motorist should listen to radio traffic reports.

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

37 Give two examples of road markings which can help the motorist read the road ahead.

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

38 Study photographs Fig. 38.1 and Fig. 38.2 on page 2 of the insert sheet.
(a) Name one hazard which a motorist would face.

Fig. 38.1
Fig. 38.2
(b) In Fig. 38.1, apart from slowing down, name one action a driver could be prepared to take.
$\qquad$
$\qquad$

39 Name two pieces of information you must give the DVLNI if there is a change to your personal details.
1.
2. $\qquad$

40 Insert the following words in the paragraph below.

The $\qquad$ had an accident. He phoned
the $\qquad$ right away. He was able to produce
his $\qquad$ to the police within twenty four hours.

His $\qquad$ will not increase as
his $\qquad$ was protected.

41 A Mondeo 1.8 TDCi Edge 5 door saloon can be purchased for the following prices.

A car supermarket for $£ 11,700.00$
A main dealer for $£ 17,250.00$
(a) Find the difference between the prices as given above.
(b) If the car is purchased from the car supermarket and drops in value by $32 \%$ over three years, how much will the car be worth then?

42 List two advantages and two disadvantages for electric, tracked trams in a large city.

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

Disdvantages 1. $\qquad$
2.
. [2]

43 (a) What could a motorist look for when checking a vehicle's tyres? Give two answers.
1.
2.
(b) Name one action which would accelerate tyre wear.
$\qquad$

44 (a) List two factors which could cause aquaplaning.

1. $\qquad$
2. 

(b) List two reasons why most road traffic accidents occur in daylight and in fine weather.

1. $\qquad$
2. 

45 (a) Describe briefly the purpose of the following components:
gearbox
clutch
(b) On which wheels do the following car braking systems work? mechanical system
hydraulic system

46 (a) Name two ways in which road engineers can make roads safer.
1.
2.
(b) Name two exhaust gases which would affect air quality.

1. $\qquad$
2. 

47 Explain briefly why different speed limits are set for different types of roads.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

48 A responsible road user is always careful.
Give your views on this statement making reference in your answer to visibility, observation and anticipation for both pedestrians and motorists.
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For use with Question 33


Fig. 33.1


Fig. 33.4


Fig. 33.2


Fig. 33.5


Fig. 33.3


Fig. 33.6
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For use with Question 38


Fig. 38.1


Fig. 38.2

