



# Road Safety

## INTRODUCTION

India ranks high when it comes to number of accidents on the road. However, in the recent years, improvement has been seen in this area. With the rapid increase in the number of vehicles on the road, the traffic conditions are under a lot of pressure. Therefore, road safety is one of the most serious public health issues in our country. It has an impact on everyone, whether one drives a vehicle, walks or rides a cycle.



Fig. 4.1: Road accident

## Understanding Road Safety

Road safety refers to the measures which must be adopted by everyone while using roads. These safety methods are meant for reducing the risk of accidents and injuries or casualties on the road. These rules must be followed by all users of roads including pedestrians, cyclists, motorists, and bus and truck drivers. Safety methods also relate to the construction, layout of roads as well as traffic regulation systems. So, we can summarise that road safety involves:

- (i) the design of roads and highways;
- (ii) laws pertaining to traffic and vehicles;
- (iii) systems of traffic safety and control;
- (iv) driver education;
- (v) school students' education;
- (vi) mass education;
- (vii) traffic regulation and road safety signs;
- (viii) vehicle design; and
- (ix) motor vehicle safety inspection and maintenance.

Keeping our roads safe is not that difficult a task. Imagine if everyone follows simple safety measures and traffic rules, there will be no accident!

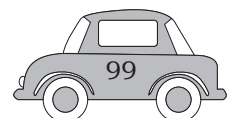
In this Unit, you will understand the various types of road safety measures to be adopted, and the importance of safety rules, road signs, traffic signals and rules, driving rules, registration and licensing adopted in our country.

### SESSION 1: IMPORTANCE OF ROAD SAFETY

#### Road Safety

Some of the major causes of road accidents are as follows.

- (i) Lack of highway safety
- (ii) Drunken driving
- (iii) Driving in an exhausted state for long hours
- (iv) Using cell phone while driving
- (v) Overspeeding or rash driving



- (vi) Driving in wrong lanes
- (vii) Turning without giving signal
- (viii) Overtaking from wrong side

It can be seen that road safety is a collective responsibility. Therefore each one of us has to take steps required of us.

### Role of Government and Public Sector

- (i) Develop stricter road safety polices
- (ii) Generate funds for road safety awareness
- (iii) Stricter enforcement of rules by government
- (iv) Building better roads and highways

### Role of General Community

- (i) Acceptance of road safety rules, regulations and policies
- (ii) Participation in road safety awareness drives to enhance people's knowledge about road safety

### Role of Education Sector

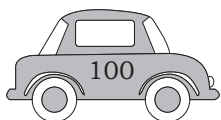
- (i) Inclusion of road safety modules in school curriculum
- (ii) Impart road safety education with the help of experts in this area
- (iii) Impart effective driver training for learners as well as existing drivers

### Role of Media

- (i) Communicate road safety messages through print and electronic media
- (ii) Support road safety initiatives through responsible and objective reporting

### Role of Health Professionals

- (i) Strengthen trauma facilities in our country.
- (ii) Organise workshops for saving the lives of people in road accidents.



## Improvement in Infrastructure

- (i) Adopt effective and safe traffic management measures while planning and designing infrastructure. For example, government approved road design, design of overbridges, road signages, etc.

## Hurdles in Road Safety

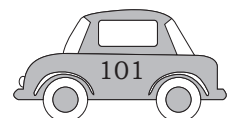
- (i) Negligence by civilians
- (ii) Pathetic condition of roads
- (iii) Unsafe vehicle design
- (iv) Violation of road safety standards
- (v) Lack of emergency services
- (vi) Defects in highway designing

Some measures undertaken by the Road Safety Cell are

- (i) Publicity programmes
- (ii) Grants-in-aid to voluntary organisations for organising road safety programmes
- (iii) National Highway Accident Relief Service Scheme
- (iv) Refresher training to heavy vehicle drivers in unorganised sector
- (v) Setting up of Model Driving Training school
- (vi) Within the Ministry of Road Transport and Highways, massive road sector development programmes, such as observing Road Safety Week or conducting eye check-ups for truck drivers, the government is working closely with agencies like the World Bank, Asian Development Bank to improve road safety.

## Road Safety Tips

Road safety is a result of efforts from all the sectors of the society including civilians and government officials. In addition to the human suffering, the estimated cost of road injuries is a noticeable amount in Gross National Product (GNP) per annum.



A few important road safety tips are mentioned below.

- (i) Do not use your mobile phone while driving.
- (ii) Use seatbelts even while sitting at the back seat of the vehicle.
- (iii) Do not drink and drive.
- (iv) Always adhere to the speed limit.
- (v) Take special care with regard to children, senior citizens and pedestrians.
- (vi) Do not drive if tired.
- (vii) Pedestrians should walk cautiously and make use of zebra crossing.
- (viii) Stay alert and observant while driving.
- (ix) Keep distance from other vehicles while driving.
- (x) Always wear helmets and seatbelts.



Fig. 4.2: Bicycle helmet



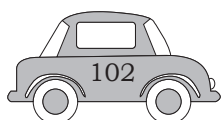
Fig. 4.3: Two-wheeler helmet

## Safety Devices

### Two-wheeler Helmet

A two-wheeler helmet (Figs 4.2, 4.3) is a type of protective headgear used by bicycle, motorcycle and scooter riders. The primary goal- of a two-wheeler helmet is to protect the rider's head during impact, thus preventing or reducing head injury or saving the rider's life. Some helmets provide additional conveniences, such as ventilation, face shields, ear protection, etc.

Of all the organs in our body, the heart and brain are the most vital ones. When a two-wheeler rider meets with an accident, it is the brain that is at a greater risk of injury. A brain injury can result due to skull fracture,



a concussion, brain haemorrhage, which can result in death.

Even if a part of the brain is damaged, it might result in the loss of speech or motor skills. In order to protect the brain, one must wear a helmet. A motorcycle helmet protects the skull and the brain from extensive damage.

## Airbag

An airbag (see Unit 3, Fig. 3.40) is fitted in a four-wheeler to protect the driver and passengers during an accident.

### Practical Exercises

#### Activity 1

List the safety rules which must be followed on road.

S. No.	Rules
1.	
2.	
3.	
4.	

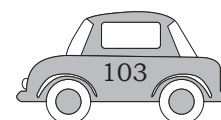
#### Activity 2

Draw a road safety poster to be put up in your classroom.

## Check Your Progress

### A. Fill in the blanks

1. Accident takes place in our daily life due to lack of \_\_\_\_\_ measure.
2. Road safety is one of the nation's most serious \_\_\_\_\_ issues.
3. \_\_\_\_\_ is a result of efforts from all the sectors of the society.
4. Do not use your mobile phone while \_\_\_\_\_.
5. Important rules of road safety cannot be \_\_\_\_\_.



### B. Multiple choice questions

1. Which safety device should be used while driving a two-wheeler?
  - (a) Helmet
  - (b) Seatbelt
  - (c) Airbags
  - (d) None of the above
2. Pedestrians should always cross the road using \_\_\_\_\_ crossing.
  - (a) zebra
  - (b) side road
  - (c) main road
  - (d) footpath

### C. Short answer questions

1. List the road safety tips.
2. What are the safety devices used while driving a four-wheeler?

## SESSION 2: SAFE AND RESPONSIBLE DRIVING

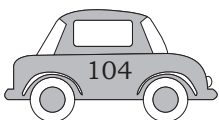
### Getting Ready to Drive before Driving

- (i) Ensure that you are comfortable with your mental and physical condition.
- (ii) Inspect your vehicle and observe the driving conditions.

While driving, you should carry your driving licence, registration certificate, insurance certificate and pollution control certificate. Transport and commercial vehicle drivers should carry the permits and vehicle fitness certificates also.

A combination of knowledge, skill and attitude is required to be a safe driver.

- **Knowledge** of traffic rules and driving practices that help traffic move safely.
- **Skill** to care about the safety of others on the road. We all are responsible for avoiding accidents.
- **Attitude** to cooperate with other drivers to keep traffic moving safely. We must be courteous, giving



other drivers space to change lanes, not cutting them off and signalling before turning.



Fig. 4.5: Ill effects of drunken driving

### Physical and Mental Alertness

One must be in good physical and mental condition before driving (Fig. 4.5).

Do not drive if you

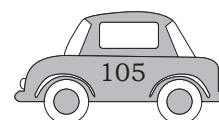
- (i) have been drinking alcohol.
- (ii) take any medicine or drug that affects your responses.
- (iii) are tired, as it affects your driving skills and reaction time.
- (iv) are sick or injured.
- (v) are angry or upset.

In such conditions, you could be risking your life or lives of others on the road.

### Know Your Vehicle

Go through the vehicle owner's manual.

You should know the features of the vehicle you are going to drive, for example, anti-lock brakes, four-wheel drive, etc.



Ensure that you know where the controls and instruments are and what they do. Check that all emergency signals and instruments work.

You should be able to turn on wipers, washers, headlights, indicators, etc., without having to look at them and without taking your eyes off the road.

## Seating Position

Proper, upright position gives more stability while driving. Make sure you can see over the steering wheel and hood. You should be able to see the ground 1.5–2.0 metre in front of the vehicle for proper judgement.



Fig. 4.6: Sitting position

Sit straight and upright in the seat, with your elbows slightly bent. Adjust the seat (Fig. 4.6) so that your feet reach the pedals easily. Place your feet flat on the floor under the brake pedal. You are seated properly if you can do this.

Adjust the headrest to an appropriate height. It protects the head in case of collision.

**Cars with air bags:** It is important to note that an air bag cannot prevent injuries if the seating position is incorrect.

## Know Your Blind Spots

Blind spot (Fig. 4.7) is an area on each side of the vehicle that you cannot see through the mirrors. Mostly blind spots are to the back left and back right of the vehicle.

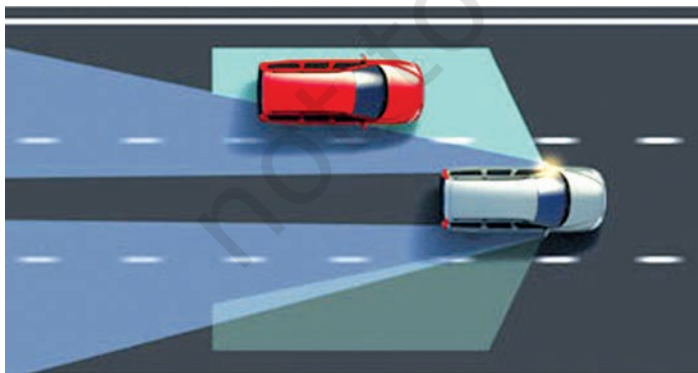
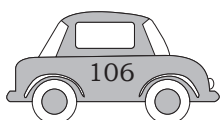


Fig. 4.7: Know your blind spots

Mostly blind spots are to the back left and back right of the vehicle. In Fig. 4.7, the red car is in the blind spot area of the silver car. The green areas show the blind spots of the silver car.

Adjust the mirrors to get the maximum view and identify your blind spots. You may not see vehicles when they are in these spots.



Position the interior mirror so that the centre of the mirror shows the centre of the rear window. When the interior mirror is properly adjusted, you would be able to see directly behind your vehicle (Fig. 4.8).

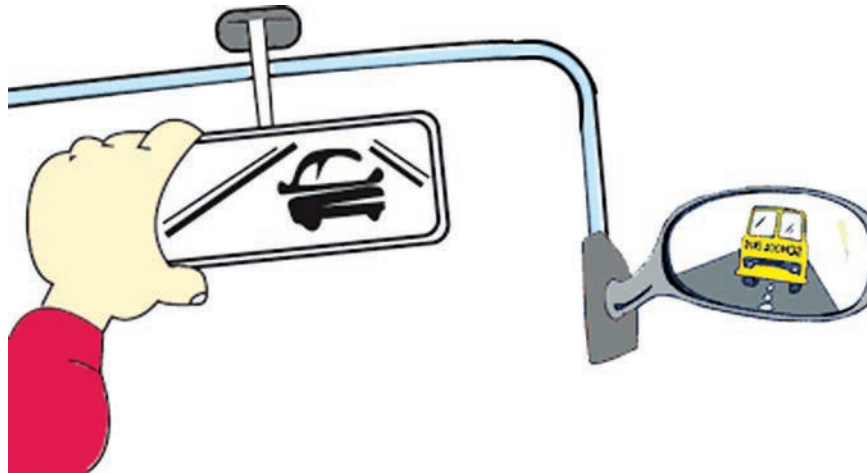


Fig. 4.8: Adjustment of interior mirror

The exterior (wing) mirror adjustment should be made while seated normally for driving. Do not set the right-hand exterior mirror by placing your head against the glass of the driver's door window. Do not adjust the left-hand exterior mirror by leaning to the centre of the vehicle.

Side mirrors show only narrow angles of view, so you have to turn your head to make sure there is nothing in your blind spots.

### **Fasten your Seat Belt**

Fasten your seat belt before you start (Fig. 4.9). Seat belts are for safety and not just for avoiding *challans*.

Seat belts should be worn comfortable enough to keep you in your seat if there is a collision. Put the shoulder strap over your shoulder, never under your arm. The lap belt should be put low over the hips, not over the stomach.



Fig. 4.9: Fasten your seat belt

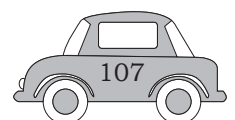




Fig. 4.10: Headlight at night

A seat belt saves life in the following ways.

- (i) It keeps you behind the wheel and in control of the vehicle in case of a collision.
- (ii) It keeps your head and body from hitting the inside of the vehicle.
- (iii) It keeps you inside the vehicle in case of a collision. A person who is thrown out of the vehicle during the collision has a higher chance of serious injury.

### Turn on Headlights at Night and in Poor Light Conditions

Turn on headlights around 30 minutes before sunset and keep them on until 30 minutes after sunrise. Turn on your lights when fog or rain reduces your visibility to less than 100 metres.

Keep your headlights clean and get them adjusted regularly so that they enable clearer vision while driving. In dim light, use your headlights, not parking lights. Parking lights are only for parking.

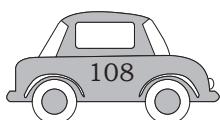
High beams are banned in cities like Delhi, Chandigarh and other cities. You should not use high beams on roads. If you are travelling on a highway and using high beam headlights, switch to low beams within 150 metres of an incoming vehicle. Switch to your low beams when you are less than 60 metres behind another vehicle.

### Practical Exercise

#### Activity 1

List the 'know your vehicle' rules followed in driving.

S. No.	Name of rules
1.	
2.	
3.	
4.	
5.	



## Check Your Progress

### A. Fill in the blanks

1. Safety belt is used in \_\_\_\_\_.
2. Proper, upright position gives more \_\_\_\_\_ while driving.
3. Mental status before driving should be \_\_\_\_\_.
4. A combination of knowledge, skill and attitude is required to be a safe \_\_\_\_\_.
5. You should know the \_\_\_\_\_ of the vehicle you are going to drive.

### B. Multiple choice questions

1. Mirror is adjusted to see the \_\_\_\_\_ view.  
(a) maximum (b) minimum  
(c) equal view (d) None of the above
2. What is the minimum age for driving a vehicle with a permanent licence?  
(a) 14 (b) 16  
(c) 18 (d) 20
3. Which areas on each side of the vehicle are not visible through the mirrors?  
(a) Front spot (b) Blind spot  
(c) Danger area (d) None of the above

### C. Short answer question

1. Define 'blind spot'.

## SESSION 3: ROAD SIGNS

Signals play an important role during smooth movement of traffic. Road signals are to be followed systematically, otherwise it may cause accidents.

### Arm Signals

Arm signals are needed when a vehicle's indicators are not used, or when necessary to reinforce direction indicator signals and stop lights (Figs 4.11 [a]–4.11 [e]).

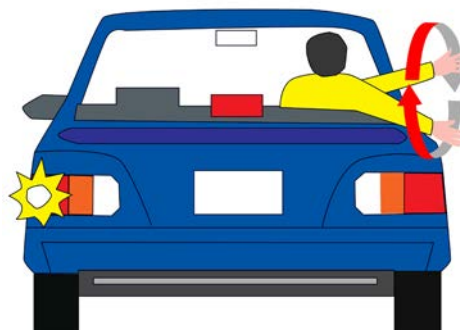
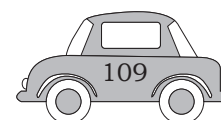


Fig. 4.11 (a): Intending to move to the left or turn left

ROAD SAFETY



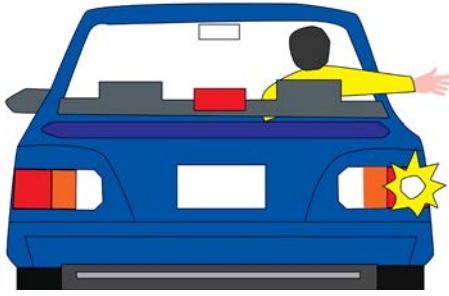


Fig. 4.11 (b): Intending to move out to the right or turn right

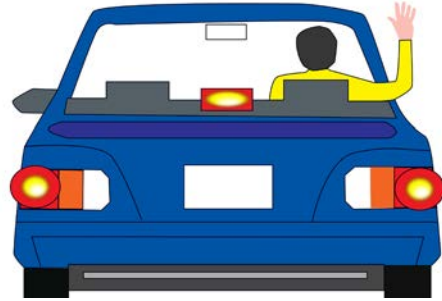


Fig. 4.11 (c): Intending to stop

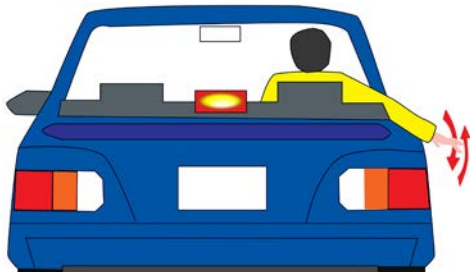


Fig. 4.11 (d): Intending to slow down

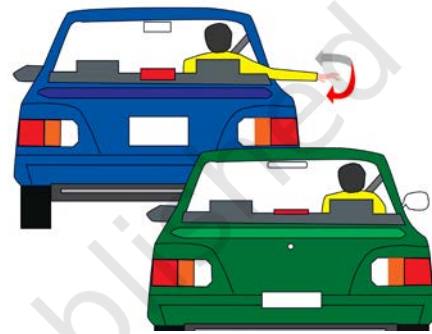


Fig. 4.11 (e): Indicating the car following you to overtake

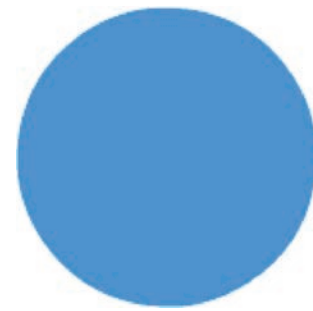
### Traffic Signs

Traffic signs are divided into three main categories.

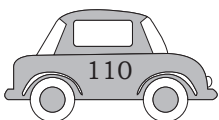
- (i) Mandatory/regulatory signs
- (ii) Cautionary signs
- (iii) Information signs



Red circle instructs what should not be done.



Blue circle instructs what should be done.





Triangle cautions



Blue rectangle informs

### Typical Cautionary Signs



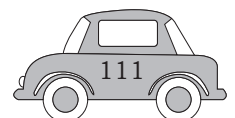
**Right/Left Hand Curve:** This sign is used where the direction of alignment changes. The sign forewarns the driver to reduce the speed and proceed cautiously along the road.



**Right/Left Hair Pin Bend:** This sign is used where the change in direction is so considerable that it amounts to reversal of direction. The symbol bends to right or left depending upon the road alignment.



**Right/Left Reverse Bend:** This sign is used where the nature of the reverse bend is not obvious to approaching traffic and constitutes a hazard. If the first curve is to the right, a right reverse bend shall be used. If the first curve is to the left, a left reverse bend is used.



**Narrow Bridge:** This sign is erected on roads in advance of bridges where the clear width between the wheel guards is less than the normal width of the carriageway.



**Gap in Median:** This sign is installed ahead of a gap in the median of a divided carriageway, other than an intersection.



**Narrow Road:** This sign is normally found in rural areas where a sudden reduction in the width of the pavement causes a danger to traffic.



**Road Widens:** This sign is normally found in rural areas where a sudden widening of road causes a danger to traffic, such as a two-lane road suddenly widening to a dual carriageway.



**Cycle Crossing:** This sign is erected in advance of all uncontrolled cycle crossings.

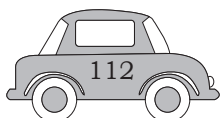


**Pedestrian Crossing:** This sign is erected in advance of both approaches to uncontrolled pedestrian crossings.



**School:** This sign is erected where school buildings or grounds are adjacent to the road, where traffic creates a hazard to children.

**Men at Work:** This sign is displayed only when men and machines are working on the road or adjacent to it or on overhead lines or poles. This sign is removed when the work is completed.

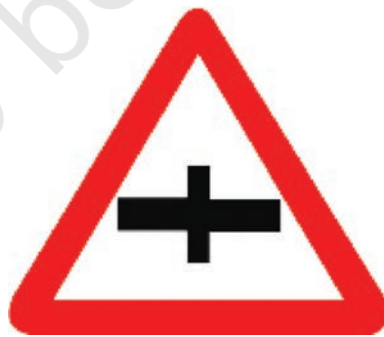




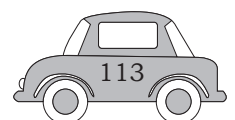
**Side Road Left/Right:** This sign is displayed in advance of the side road intersections where a large volume of entering traffic, together with restricted sight distance, is likely to constitute a hazard. The driver is warned of the existence of a junction.

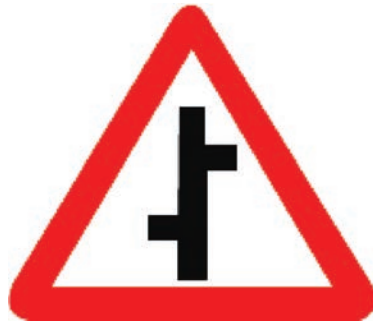


**Y-Intersection:** These signs are displayed on the approach to a bifurcation of any road. This sign warns of the existence of a junction and no other indication is given.

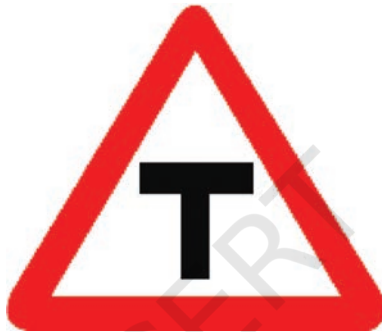


**Major Road:** These signs are displayed in advance of a crossing with a major road, where a sufficiently large volume of traffic together, with restricted sight, is likely to cause a hazard.





**Staggered Intersection:** This sign is used to indicate junctions where the distance between two junctions is not more than 60 meters.



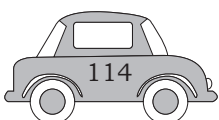
**T Intersection:** This sign is displayed in advance of T-junctions where the nature of intersection is not obvious to approaching traffic. This sign is used to warn the driver of the existence of a junction.



**Start of Dual Carriageway:** This sign is displayed when a single carriageway ends in a dual carriageway.



**Reduced Carriageway:** These signs caution the driver about the reduction in the width of the carriageway ahead. This is displayed on undivided carriageways when some portion of the carriageway is closed or reduced for repairs.





**Two-way Operation:** This sign is used to caution the driver of a changed pattern of traffic operation of the carriageway expected to carry traffic in one direction only.

### Typical Cautionary Signs

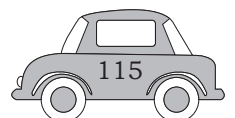
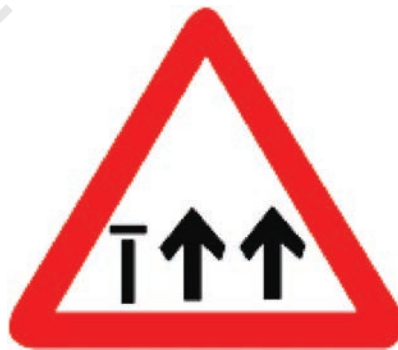


**Cattle:** This sign is used where there is danger due to farm animals or cattle crossing the road.



**Falling Rocks:** This sign is used wherever rocks are liable to fall on the road seasonally or throughout the year. The symbol may be reversed to show the side from which rockfall is expected.

**Lane Closure:** This sign cautions the driver of the closure of a portion of the carriageway on multilane highways.





**Barrier:** This sign is erected in advance of a gate controlling entry into a road. A definition plate with words 'SLOW BARRIER AHEAD' or 'TOLL BARRIER AHEAD' is also displayed on the sign.



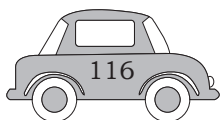
**Roundabout:** This sign is used where it is necessary to indicate the approach to a roundabout.



**End of Dual Carriageway:**

This sign is displayed when a dual carriageway ends and a single carriageway starts.

**Cross Road:** This sign is displayed in advance of the cross road where a sufficiently large volume of crossing or entering traffic with restricted sight distance is likely to constitute a hazard.





**Traffic Diversion on Dual Carriageway:** This sign warns the driver about the diversion of traffic from one carriageway to the other. It is used on dual carriageway when one carriageway is closed.



**Ferry:** This sign is used to warn the drivers about the existence of a ferry crossing across a river.



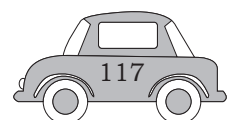
**Loose Gravel:** This sign is used on the section of road on which gravel may be thrown up by fast moving vehicles.



**Overhead Cable:** This sign cautions the driver about the presence of overhead power transmission lines.



**Quarry Side or River Bank:** This sign is used to caution the driver of the presence of water by the side of the road and impending danger.





**Rough Road:** This sign is posted where the road is rough and the drivers are required to slow down their vehicles for safe travel.



**Runway:** This sign is used to warn the drivers about the presence of a runway ahead and possible movement of aircraft.



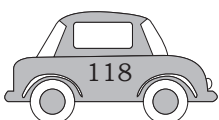
**Series of Bends:** This sign is used to caution the driver about the presence of zigzag for a long distance over a section of road ahead.



**Slippery Road:** This sign is used to warn that the section of the road ahead may be particularly slippery.



**Sudden Side Wind:** This sign is used to caution the driver about the side winds which endanger the lives of travellers. This sign is posted at places where such weather conditions exist.





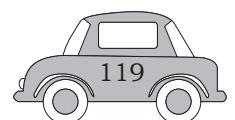
**Traffic Signals:** This sign is used to caution the drivers about the presence of traffic signals.



**Unguarded Railway Crossing:** This sign is used on the approaches of level crossings where there are no gates or other barriers. An advance warning sign (with two bars) is installed at a distance of 200 metres and second sign (with one bar) is installed near the crossing.



**Guarded Railway Crossing:** This sign is used to warn traffic on the approaches to guarded railway crossing. An advance warning sign (with two bars) is installed at a distance of 200 metres and a second sign (with one bar) is installed near the crossing.





**Steep Ascent or Steep Descent:** This sign is displayed before a steep upgrade or downgrade that may constitute a hazard to traffic. A gradient of 10 per cent and above is considered steep gradient.



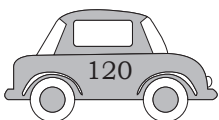
**Rumble Strip:** This sign is installed in advance of the rumble strips provided on the road to control the speed of the vehicle.



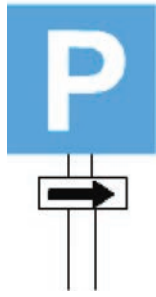
**Dangerous Dip:** This sign is used where a sharp dip in the profile of the road or a causeway is likely to cause considerable discomfort to traffic.



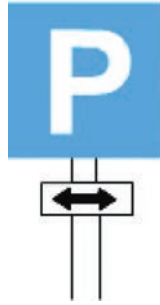
**Speed Breaker:** This sign warns the drivers about the presence of a speed breaker.



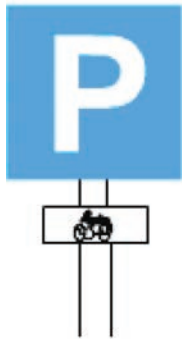
# Parking Signs



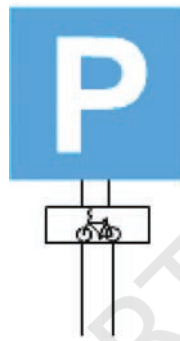
Parking on this Side



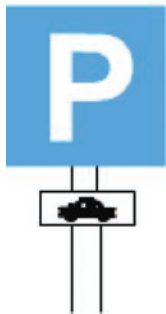
Parking on both Sides



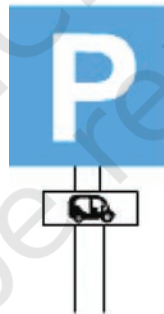
Scooter and Motor  
Cycle Stand



Cycle Stand



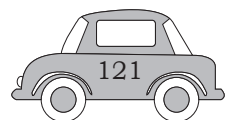
Taxi Stand



Autorickshaw  
Stand



Cycle-Rickshaw Stand



## Speed Limit and Vehicle Control Signs



**Speed Limit:** This sign is erected at the beginning of the section of the road or area covered by a speed restriction, with numerals indicating the speed limit in kilometres per hour.



**Width Limit:** This sign is used where entry of vehicles exceeding a particular width is prohibited.



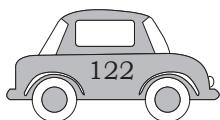
**Height Limit:** This sign is erected in advance of an overhead structure where entry is prohibited for vehicles whose height exceeds a certain limit.



**Length Limit:** This sign is used where entry of vehicles exceeding a particular length is prohibited.



**Load Limit:** This sign is used where entry of vehicles is prohibited for vehicles whose laden weight exceeds a certain limit.





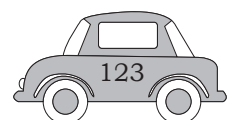
**Axle Load Limit:** This sign is used where entry of vehicles is prohibited for vehicles whose gross load exceeds a certain limit.

## Prohibitory Signs

**Straight Prohibited or No Entry:** These signs are located at places where the vehicles are not allowed to enter. It is generally erected at the end of one-way road to prohibit traffic entering the roadway in the wrong direction and also at each intersection along the one-way road.



**One way Sign:** These signs are located at the entry to the one-way street and repeated at intermediate intersections on that street.





**Vehicles Prohibited in Both Directions:** This sign is used at the approach end of the roads where entry to all types of vehicular traffic is prohibited, especially in areas which have been designed as pedestrian malls.



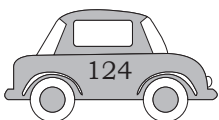
**Horn Prohibited:** This sign is used on stretches of the road where using horn is not allowed, for example, near hospitals and in silence zones.



**Cycle Prohibited:** This sign is erected on each entry to the road where cycles are prohibited.



**Pedestrian Prohibited:** This sign is erected on each entry to the road where pedestrians are prohibited.





**Right/Left Turn Prohibited:** These signs are used at places where vehicles are not allowed to turn to the right or left. The signs are also used at the intersections of one-way street to supplement the one-way sign.



**U-Turn Prohibited:** This sign is used in places where vehicles are forbidden to make a turn to the reverse direction of travel between the sign and the next intersection beyond it.



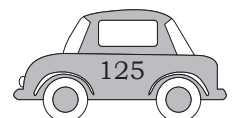
**Overtaking Prohibited:** This sign is erected at the beginning of such sections of highways where sight distance is restricted and overtaking could be dangerous.



**All Motor Vehicles Prohibited:** This sign is used at places where entry to all types of motor vehicles is prohibited.



**Trucks Prohibited:** This sign is used at the entrance to the road where movement of trucks is prohibited.





**Hand Cart Prohibited:**

This sign is erected on each entry to the road where hand carts are prohibited.



**Bullock Cart Prohibited:**

This sign is erected on each entry to the road where bullock carts are prohibited.



**Tonga Prohibited:**

This sign is erected on each entry to the road where tongas are prohibited.



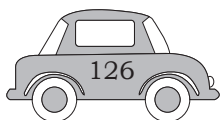
**Bullock Carts and Hand Carts Prohibited:**

This sign is erected on each entry to the road where all types of slow moving vehicles except cycles are prohibited.

Stop and Give Way Signs



**Stop Sign:** This sign is used on roadways where traffic is required to stop before entering a major road. The vehicle shall proceed past the stop line only after ascertaining that this will not cause any damage to traffic on the main road.





**Give Way Sign:** This sign is used to assign right-of-way to traffic on certain roadways and intersections, the intention being that the vehicles controlled by the sign must give way to the other traffic having the right-of-way.

### Restriction End Sign



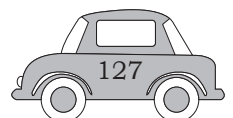
This sign indicates the point at which all prohibitions notified by the prohibitory signs for moving of vehicles cease to apply.

### Compulsory Direction Control and Other Signs

**Compulsory Turn Left/Right:** These signs indicate the appropriate direction in which the vehicles are permitted to proceed.



**Compulsory Ahead or Turn Left/Right:** These signs indicate the appropriate directions in which the vehicles are permitted to proceed. Vehicles are supposed to move either of the given two directions.





**Compulsory Ahead:** This sign indicates that the vehicle is only permitted to proceed ahead.



**Compulsory Keep Left:** This sign is most frequently used on bollards or islands and refuges in the middle of the carriageway and at the beginning of central reserves of dual carriageway. The vehicles are obliged to keep left only.



**Compulsory Cycle Rickshaw Track:** This sign means only cycles and rickshaws are allowed on this road or carriageway.



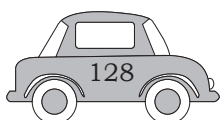
**Compulsory Sound Horn:** This sign means the motor vehicles shall compulsorily sound horn at the location where the sign is placed. This sign is mostly put at sharp curves on hill roads.



**Slip Road Ahead:** This sign means the vehicles can either go straight or turn left.



**Main Road Ahead:** This sign means the vehicles can either go straight or turn right.





**Pedestrians Only:** This sign means that only pedestrians are allowed and the traffic is not allowed on this road or carriageway.



**Buses Only:** This sign means that only buses are allowed and other traffic is not allowed on this road or carriageway.

## Practical Exercise

### Activity 1

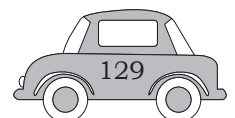
Draw 'Prohibitory' signs.







## Check Your Progress

### A. Fill in the blanks

1. A traffic sign helps in \_\_\_\_\_ movement of traffic.
2. The hand can also be used as \_\_\_\_\_ in emergency.
3. Signal traffic lights have \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ colour.



### B. Multiple choice questions

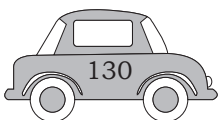
1. Sign of children near road shows possibility of \_\_\_\_\_ nearby.  
(a) school  
(b) park  
(c) home  
(d) hospital
2. Sign of  informs that \_\_\_\_\_.  
(a) vehicle is prohibited in both directions  
(b) vehicle prohibited in one direction  
(c) vehicle prohibited in all directions  
(d) None of the above
3. Signal of  shows \_\_\_\_\_.  
(a) speed limit  
(b) crossing  
(c) distance  
(d) None of the above
4. Sign shows  \_\_\_\_\_.  
(a) guarded railway crossing  
(b) unguarded railway crossing  
(c) road crossing  
(d) None of the above
4. Sign of  informs about \_\_\_\_\_.  
(a) danger due to animals  
(b) danger due to light  
(c) danger due to forest  
(d) None of the above

### C. Short answer questions

1. Discuss the role of signal in road safety.
2. List some safety signs.

## SESSION 4: DRIVING RULES AND REGISTRATION

The basic idea behind devising driving rules is to make the traffic more organised and safe. The Government of India has made driving rules for the citizens, which need to be followed by every citizen. Violation of the driving rules leads to fine or one can be asked to appear in front of the court. The driving rules and their number with penalty is explained next (these rules change from time to time).

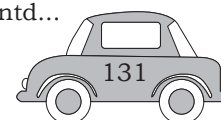


## Driving Rules

**Table 4.1: Traffic Offence and Penal Sections**

S. No.	Offence	Penal Section	Compoundable or Non-compoundable	Fine Amount	Subsequent Fine Amount
1.	Driver without Uniform (in PSVs)	66.1/192A MV Act	Non Compoundable	To Court	To Court
2.	No Overtaking (General Motorists)	6 RRR/177 MV Act	Compoundable	100/-	300/-
3.	Smoking by Driver/ Conductor	DMVR 11.2/177 MV Act	Compoundable	100/-	300/-
4.	Park/Wait in Bus Lane/Bus Stand (General Motorists)	RRR15(2)/177 MV Act	Compoundable	100/-	300/-
5.	Open dala	RRR 16.1/177 MV Act	Compoundable	100/-	300/-
6.	One-way violation/ Driving against the flow of traffic	RRR 17(1)177 MV Act and 184 MV Act	Compoundable	100/- & 184 MV Act 1000/-	300/- & 2000
7.	Violation of Yellow Line (Central Verge)	18(11)RRR/119/177 MV Act	Compoundable	100/-	300/-
8.	Blowing of pressure horn	21 RRR/177 MV Act	Compoundable	100/-	300/-
9.	Conductor without PSV badge	66(1) 192A MV Act	Non Compoundable	To Court	To Court
10.	Giving alms to beggars or buying articles from hackers/vendors at intersection	22(a) RRR/177 MV Act	Compoundable	100/-	300/-
11.	Conductor without uniform	66(1)/192A MV Act	Non Compoundable	To Court	To Court
12.	Carrying high/long load	RRR 29/177 MV Act	Compoundable	100/-	300/-
13.	Advertisement on vehicle	DMVR 71.2/177 MV Act	Compoundable	100/-	300/-
14.	Cruelty with animal	DMVR 80/177 MV Act	Compoundable	100/-	300/-
15.	Carrying goods on passenger vehicle	DMVR 84(4)/177 MV Act	Compoundable	100/-	300/-
16.	Carrying passenger on goods vehicle	84(2) DMVR/177 & 184 MV Act	Compoundable	100/-	300/-
17.	Without log group	CMVR 85(10)/177 MV Act	Compoundable	100/-	300/-
18.	Smoking in the vehicle	DMVR 86.1(5)/177 MV Act	Compoundable	100/-	300/-
19.	Using horn in 'NO HONKING ZONE'	DMVR 96(1)/177 MV Act	Compoundable	100/-	300/-
20.	Use of coloured light on motor	DMVR 97(2)/177 MV Act	Compoundable	100/-	300/-

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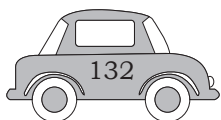


ROAD SAFETY

S. No.	Offence	Penal Section	Compoundable or Non-compoundable	Fine Amount	Subsequent Fine Amount
21.	Without valid PUC certificate	115 CMVR/ 190(2) MV Act	Compoundable	1000/-	2000/-
22.	Excess smoke	DMVR 99(1)(a)/177 MV Act	Compoundable	100/-	300/-
23.	Use of tinted glass	100(2) CMVR/177 MV Act	Compoundable	100/-	300/-
24.	Without wiper	CMVR 101/177 MV Act	Compoundable	100/-	300/-
25.	Playing of music in buses and use of DVD screen in private cars	102 DMVR/177 MV Act	Compoundable	100/-	300/-
26.	Driving without light after sunset	CMVR 105/177 MV Act	Compoundable	100/-	300/-
27.	Using siren	DMVR 107/177 MV Act	Compoundable	100/-	300/-
28.	Using high beam	112(4)(a)&(c)/177 MV Act	Compoundable	100/-	300/-
29.	Violation of stop line	113(1)DMVR/177 MV Act	Compoundable	100/-	300/-
30.	Violation of traffic signal	119/177 MV Act	Compoundable	100/-	300/-
31.	Violation of mandatory road signs	119/177 MV Act	Compoundable	100/-	300/-
32.	Driving without horn	CMVR 119.1/177 MV Act	Compoundable	100/-	300/-
33.	Driving left-hand drive indicator	120/177 MV Act	Compoundable	100/-	300/-
34.	Driving without silencer	CMVR 120/177 MV Act	Compoundable	100/-	300/-
35.	Obstructive/improper parking where police direction is indicated through a sign board of 'No Parking'	122/177 MV Act & 179 MV Act	Compoundable	100/-	300/-
36.	To travel on footboard	123/177 MV Act	Compoundable	100/-	300/-
37.	Travelling without Pass/Ticket	124/177 MV Act	Compoundable	100/-	300/-
38.	Obstructive driving (Extra Passenger on Driver Seat)	125/177 MV Act	Compoundable	100/-	300/-
39.	Triple riding on two-wheeler	128/177 MV Act	Compoundable	100/-	300/-
40.	Driver/Pillion rider without helmet	129/177 MV Act	Compoundable	100/-	300/-
41.	Not using seat belts	138(3) CMVR/177 MV Act	Compoundable	100/-	300/-

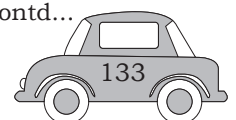
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AUTOMOTIVE SERVICE TECHNICIAN – CLASS IX



S. No.	Offence	Penal Section	Compoundable or Non-compoundable	Fine Amount	Subsequent Fine Amount
42.	Not displaying number Plate/Defective number plate/Fancy number plate	CMVR 50,51/177 MV Act & alongwith section 39/192 MV Act.	Compoundable	100/-	300/-
43.	Without HSRP	39/192 MV Act	Compoundable	4500/-	9000/-
44.	Permit holder/driver of contact carriage refuses to carry passengers	66(1)/192 MV Act	Non Compoundable	To court	to court
45.	To drive a vehicle without license	3/181 MV Act	Compoundable	500/-	-
46.	Allowing unauthorised person to drive vehicle	5/180 MV Act	Compoundable	1000/-	-
47.	Driving a vehicle without registration	39/192 MV Act	Compoundable	5000/-	10000/-
48.	Using unregistered vehicles or displaying applied for	39/192 MV Act	Compoundable	4500/-	9000/-
49.	Driving a vehicle without fitness	96/192 MV Act	Compoundable	5000/-	10000/-
50.	Not displaying the helpline number of State police and transport department in a bus	66/192-A MV Act	Non Compoundable	To court	To court
51.	Violation of Supreme Court directions violation of permit conditions	66/192-A MV Act	Non Compoundable	To court	To court
52.	Driving a vehicle without valid permit	66/192-A MV Act(Vehicle to be impounded for 15 days and not to be released until permit is renewed)	Non Compoundable	To court	To court
53.	Misbehaviour by TSR/ Taxi driver	66(1)/192-A MV Act	Non Compoundable	To court-	To court
54.	Overcharging by TSR/ Taxi	66(1)/192-A MV Act	Non Compoundable	To court	To court
55.	Refusal by TSR/Taxi driver	66(1)/192-A MV Act	Non Compoundable	To court	To court
56.	Overtaking to other commercial vehicle in running condition	66/192-A MV Act	Non Compoundable	To court	To court
57.	Picking passenger without stand	66.1/192-A MV Act	Non Compoundable	To court	To court
58.	Running in first lane (not in bus lane)	66.1/192-A MV Act	Non Compoundable	To court	To court

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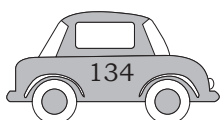


ROAD SAFETY

<b>S. No.</b>	<b>Offence</b>	<b>Penal Section</b>	<b>Compoundable or Non-compoundable</b>	<b>Fine Amount</b>	<b>Subsequent Fine Amount</b>
59.	Without speed governor	66.1/192-A MV Act	Non Compoundable	To court	To court-
60.	School bus without school board	66.1/192-A MV Act	Non Compoundable	To court	To court
61.	Bus not stopping within one meter of the kerb of the authorised bus stop	66.1/192-A MV Act	Non Compoundable	To court	To court
62.	Plying of bus with open doors	66.1/192-A MV Act	Non Compoundable	To court	To court
63.	To drive overweight vehicle	113/194 MV Act	Non Compoundable	To court	To court
64.	Violation of no entry timings by goods vehicles	115/194 MV Act	Non Compoundable	To court	To court
65.	Driving a vehicle without insurance	146/196 MV Act	Non Compoundable	To court	To court
66.	Violation of directions of a police officer and misbehaviour with a police officer	132/179 MV Act	Compoundable	500/-	-
67.	With holding of information	179 (2)	Compoundable	500/-	-
68.	Driving of vehicle by disqualified person	182(1)	Compoundable	500/-	-
69.	Disqualified conductor	182(2)	Compoundable	500/-	-
70.	Over speeding	112/183 MV Act	Compoundable	400/-	1000/-
71.	Causing the employee to drive at excessive speed	183(2)	Compoundable	300/-	500/-
72.	Driving dangerously	184 MV Act (or Case under section 279 IPC)	Compoundable	1000/-	2000/-
73.	Using mobile while driving a vehicle	184 MV Act	Compoundable	1000/-	2000/-
74.	Drive a vehicle after consuming intoxicants substances (narco-drugs), alcohol (violation of blood alcohol concentration over 3mg/100mL)etc.	185 MV Act	Non Compoundable	To court	To court

Contd...

AUTOMOTIVE SERVICE TECHNICIAN – CLASS IX



S. No.	Offence	Penal Section	Compoundable or Non-compoundable	Fine Amount	Subsequent Fine Amount
75.	Driving when mentally and physically unfit	186 MV Act	Compoundable	200/-	500/-
76.	Punishment relating to accidents	187 MV Act	Non Compoundable	To court	To court
77.	Racing and trials of speed	189 MV Act	Compoundable	500/-	-
78.	Air/noise pollution	190(2) MV Act	Compoundable	1000/-	2000
79.	Sale of vehicle in contravention of Act	191 MV Act	Compoundable	500/-	-
80.	To take away vehicle without permission	197 MV Act	Non Compoundable	To court	To court
81.	Unauthorized interference with vehicle	198 MV Act	Non Compoundable	To court	To court
82.	Without RUPD and LUPD	124 CMVR/190(2) MV Act	Compoundable	1000/-	2000/-

(Source: <https://delhitrafficpolice.nic.in/public-interface/traffic-offence/>)

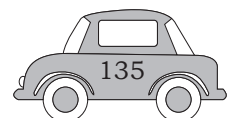
## Motor Vehicle Acts and Rules

MVA	Motor Vehicle Act, 1988
CMVR	Central Motor Vehicle Rules, 1989
DMVR	Delhi Motor Vehicle Rules, 1993

## Registration

After a vehicle is purchased, it is registered with the State Transport office. All the districts have a Road Transport Office (RTO). RTO gives a registration number to all road vehicles. Every vehicle is fixed with a registration plate, commonly known as a number plate, which is placed in the front and back of the vehicle.

ROAD SAFETY



## Registration Rules and Process

### Necessity for Registration

No person shall drive any motor vehicle and no owner of motor vehicle shall cause or permit the vehicle to be driven in any public place or any other place, unless the vehicle is registered in accordance with Chapter 4 of IMV Act 1988.

### Where to Register?

Every owner of a motor vehicle shall cause the vehicle to be registered by a registration authority in whose jurisdiction they have a residence or place of business where the vehicle is normally kept.

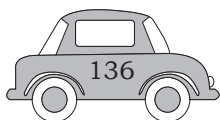
### Temporary Registration

An application for temporary registration shall be made in Form 20 of the Central Motor Vehicle Rules, 1989 prescribed for Registration, under the Act marked 'Temporary' to the Registering Authority or to the dealer dealing in the sale of new motor vehicles recognised by the Transport Commissioner. It shall not be necessary to fill in the items 23 to 32 of the Form 20 in case of commercial vehicles like trucks.

### Permanent Registration

An application for registration of a motor vehicle shall be made in Form 20 to the Registering Authority within a period of seven days from the date of delivery of such vehicle excluding the period of journey and shall be accompanied by Sales certificate in Form 21.

- (i) Road worthiness certificate in Form 22 from the manufacturers (Form 22A from the vehicle body manufacturer).
- (ii) Valid Insurance Certificate
- (iii) Proof of Address (Ration Card, Electricity Bill, etc.)
- (iv) Design approval copy of State Transport Authority in case trailer or semi-trailer
- (v) Original Sales Certificate from the concerned authorities in Form 21 in the case of ex-Army vehicle



AUTOMOTIVE SERVICE TECHNICIAN – CLASS IX

- (vi) Pollution under control certificate
- (vii) Customs' clearance certificate in case of imported vehicles
- (viii) Appropriate fee as specified in Rule 81 of CMV Rules

## Practical Exercise

### Activity 1

List the types of documents used in RTO office while registering a vehicle.

S. No.	Name of forms
1.	
2.	
3.	
4.	
5.	

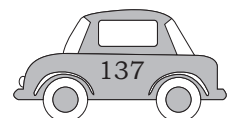
### Check Your Progress

#### A. Fill in the blanks

1. An application of temporary registration can be made in \_\_\_\_\_ of the Central Motor Vehicles Rules, 1989.
2. Vehicle registration is made at \_\_\_\_\_ office.
3. Vehicle registration is compulsory for driving \_\_\_\_\_.

#### B. Multiple choice questions

1. Red circle instructs \_\_\_\_\_
  - (a) what should not be done
  - (b) what should be done
  - (c) what should be seen
  - (d) None of the above
2. Signal plays an important role during \_\_\_\_\_.
  - (a) smooth movement of traffic
  - (b) air traffic movement
  - (c) sea transport movement
  - (d) All of the above



3. Right/Left Hand Curve sign is used where the direction of alignment \_\_\_\_\_.
  - (a) does not change
  - (b) changes
  - (c) is straight
  - (d) None of the above
4. Narrow arrow road sign is normally found \_\_\_\_\_.
  - (a) in rural areas
  - (b) in urban area
  - (c) in city area
  - (d) None of the above

### C. Short answer questions

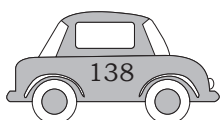
1. Why is registration required?
2. What are the different types of documents used in registration?
3. What are the advantages of using a driving license?

## SESSION 5: DRIVING LICENCE

As you may be aware, while driving a vehicle the driver must have a valid document called driving licence or a driver's licence. It is an official document which states that a person may operate a motorised vehicle, such as a motorcycle, car, truck or a bus, on a public roadway. The minimum age for driving is 18 years for all vehicles, however motorcycle having engine capacity below 50 cc may be driven at the age of 16.

According to the Motor Vehicle Act 1988, a valid driving licence is necessary to drive any motor vehicle on public roads.

- (i) Driving Licence is issued by the Regional Transport Office (RTO) of Motor Vehicles Inspector's Office after the recipient has passed a driving test and has proved the required age.
- (ii) The Driving Licence in India is segregated as Motorcycle Licence, Light Motor Vehicle (LMV) Licence and Heavy Motor Vehicle (HMV) Licence.
- (iii) Learner's Licence is issued after passing a theory test.



- (iv) The legislation of Driving Licence is done through the Rules of the Road Regulation and the Motor Vehicle Act, 1988.
- (v) The driver of the vehicle is required to keep the original copy of the licence while driving.

## **Types of Driving Licence in India**

To drive a motor vehicle in any public place, a valid driving licence is necessary. A valid driving licence means the licence is issued to a person authorising them to drive the vehicle of that particular category. There are different types of licences issued by the RTO offices. Here we will discuss each of them separately.

### **(a) Learner Driving Licence**

This is a temporary licence which is valid up to six months from the date of issue. It is basically issued to learn driving of motor vehicles.

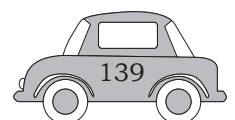
### **(b) Permanent Driving Licence**

Permanent driving licence is issued to those who become eligible for it after 30 days (to apply within 180 days) from the date of issue of the learner licence. The person supposed to get permanent driving licence should be conversant about the vehicle systems, driving, traffic rules and regulations.

### **(c) Duplicate Driving Licence**

In case of loss, theft or on mutilation, a duplicate driving licence is issued. The documents to be produced are FIR of the lost licence, challan clearance report from RTA Office (in case of commercial licence renewal) and an application in Form LLD. The particulars are verified by the authority from the records. The duplicate licence has the same valid period as that of the previous licence. If the licence is lost and expired by more than six months, it requires permission from headquarters of the Transport Department.

It is recommended to keep a photocopy of the original licence or the particulars of the licence noted, in order to make it easier for the issuing authority to locate the particulars from their record.



#### (d) International Driving Licence

The motor licencing authority also issues International Driving Licence. The validity of this licence is for one year. Person visiting the country is required to collect the licence from there within one year period. Apart from the address proof and birth certificate, one has to produce a valid passport and valid visa while applying.

#### (e) Motorcycle Licence or Two-wheeler Licence

A two-wheeler licence is issued by the Regional Transport Office (RTO) to permit driving of only two-wheeler vehicles like bike, scooter and moped.

#### (f) Light Motor Vehicle Licence (LMV)

Light Motor Vehicle Licence is issued to drive light vehicles like autorickshaws, motor car, jeep, taxi, three-wheeler delivery vans, etc.

#### (g) Heavy Motor Vehicle Licence (HMV)

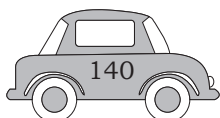
Heavy Motor Vehicle Licence is issued to drive heavy vehicles like trucks, buses, tourist coaches, cranes, goods carriages, etc. A person with HMV licence can drive light vehicles but a Light Motor Vehicle Licence does not permit one to drive heavy vehicles.

### Practical Exercises

#### Activity 1

List the different types of licences.

S. No.	Name of forms
1.	
2.	
3.	
4.	
5.	
6.	
7.	



## Check Your Progress

### A. Fill in the blanks

1. Learner's License is issued after passing a \_\_\_\_\_ test.
2. RTO is office used for registration of \_\_\_\_\_.
3. Driving license is made at \_\_\_\_\_ office.
4. License is compulsory for driving \_\_\_\_\_.
5. The minimum age for getting a learning license is \_\_\_\_\_.

### B. Multiple choice questions

1. The full form of LMV is \_\_\_\_\_.  
(a) Light Motor Vehicle  
(b) Low Motor Vehicle  
(c) Light Meter Vehicle  
(d) None of the above
2. The full form of HMV is \_\_\_\_\_.  
(a) Heavy Motor Vehicle  
(b) High Motor Vehicle  
(c) High Meter Vehicle  
(d) None of the above
3. International Driving License is valid for \_\_\_\_\_.  
(a) 1 year  
(b) 2 years  
(c) 3 years  
(d) 4 years

### C. Short answer questions

1. Why is a driving license required?
2. What are the different types of documents required to get a driving license?

