



**UNIT –II**  
**REGULATION OF TRAFFIC AND PARKING**

<b>1</b>	a) What are the needs for traffic regulation?	[L1][CO2]	[6M]
	b) List out the various Traffic Laws as per Indian Motor Vehicle Act?	[L1][CO2]	[6M]
<b>2</b>	a) Give the discussion about the regulation of speed at night.	[L2][CO2]	[4M]
	b) Discuss about the various speed limits in rural and urban areas.	[L2][CO2]	[8M]
<b>3</b>	a) What are the various enforcement methods and instruments used for detection of speed violators?	[L1][CO2]	[5M]
	b) Explain about speed zoning and criteria considered to determine speed zoning.	[L2][CO2]	[7M]
<b>4</b>	Explain the various aspects which are indicated in regulation of vehicles.	[L2][CO2]	[12M]
<b>5</b>	Develop your answers for the following elements in view of regulation concerning the driver.		
	i) Licensing of the driver	ii) Requirements of physical fitness	[L2][CO2] [12M]
	iii) Disqualification and endorsement of licenses		
<b>6</b>	Explain about the various rules adopted in concern to traffic for cyclist and pedestrians	[L2][CO2]	[12M]
<b>7</b>	a) What are the various ill-effects of parking? Write them in detail.	[L1][CO2]	[6M]
	b) Briefly explain about zoning and parking space requirement of IRC standards?	[L2][CO2]	[6M]
<b>8</b>	Identify the various common methods in design of On-street parking with sketches.	[L1][CO2]	[12M]
<b>9</b>	Briefly explain the various traffic regulatory measures that should be considered for On-street Parking?	[L2][CO2]	[12M]
<b>10</b>	Give a brief discussion about different types of Off-street parking facilities.	[L2][CO2]	[12M]



**UNIT –IV**  
**TRAFFIC SIGNS**

<b>1</b>	a) Write the importance of traffic signs. b) What are the various objectives in general principles of traffic signing?	[L1][CO5] [L1][CO5]	[4M] [8M]
<b>2</b>	Give a detailed discussion about the different types of traffic signs.	[L2][CO5]	[12M]
<b>3</b>	a) Why traffic signing requires International standardization? b) Briefly explain about traffic signs situation in India?	[L2][CO5] [L2][CO5]	[6M] [6M]
<b>4</b>	Briefly discuss about warning signs with neat sketches?	[L2][CO5]	[12M]
<b>5</b>	Develop your answer about the following elements in view of traffic signs. i) Prohibitory signs                      ii) Warning signs                      iii) Mandatory signs	[L2][CO5]	[12M]
<b>6</b>	Briefly discuss about Mandatory signs with neat sketches?	[L2][CO5]	[12M]
<b>7</b>	Discuss about Informatory signs and Route marker signs with neat sketch?	[L2][CO5]	[12M]
<b>8</b>	a) Briefly explain about Indication signs with neat sketch? b) Write the conditions for placing the overhead signs.	[L2][CO5] [L1][CO5]	[6M] [6M]
<b>9</b>	Explain with neat sketch the following signs: i) Advance direction signs    ii) Overhead signs                      iii) Place identification signs	[L2][CO5]	[12M]
<b>10</b>	Describe in detail about the Location, Height & Maintenance of traffic signing.	[L2][CO5]	[12M]

**UNIT –V**  
**TRAFFIC SIGNALS**

<b>1</b>	What is meant by traffic signals? What are the advantages & disadvantages of it?	[L1][CO6]	[12M]															
<b>2</b>	a) Briefly explain the concept of signal indications in various country practices? b) Write a note on pedestrian signal indications.	[L2][CO6] [L1][CO6]	[8M] [4M]															
<b>3</b>	a) What is meant by Signal Face, explain it with neat sketch? b) Explain the concept of illumination of signals with specifications.	[L1][CO6] [L2][CO6]	[7M] [5M]															
<b>4</b>	A fixed time 2 phase signal is to be provided at an intersection having a North-South and an East-West road where only straight-ahead traffic is permitted. The design hour flows from the various arms and the saturation flows for these arms are given in the following table: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><i>Type of flow</i></th> <th style="text-align: center;"><i>North</i></th> <th style="text-align: center;"><i>South</i></th> <th style="text-align: center;"><i>East</i></th> <th style="text-align: center;"><i>West</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Design hour flow(q) in PCU s/hour</td> <td style="text-align: center;">800</td> <td style="text-align: center;">400</td> <td style="text-align: center;">750</td> <td style="text-align: center;">1000</td> </tr> <tr> <td style="text-align: center;">Saturation flow(s)in PCU s/hour</td> <td style="text-align: center;">2400</td> <td style="text-align: center;">2000</td> <td style="text-align: center;">3000</td> <td style="text-align: center;">3000</td> </tr> </tbody> </table> <p>Calculate the optimum cycle time and green times for the minimum overall delay. The intergreen time should be the minimum necessary for efficient operation. The time lost per phase due to starting delays can be assumed to be 2 seconds. The value of the amber period is 2 seconds. Sketch the timing diagram for each phase.</p>	<i>Type of flow</i>	<i>North</i>	<i>South</i>	<i>East</i>	<i>West</i>	Design hour flow(q) in PCU s/hour	800	400	750	1000	Saturation flow(s)in PCU s/hour	2400	2000	3000	3000	[L3][CO6]	[12M]
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<b>5</b>	How Amber period, Red/Amber period and intergreen period is determined in various countries practices?	[L1][CO6]	[12M]															
<b>6</b>	What is meant by Warrants for signals and explain in detail about different types of warrants laid by I.R.C.?	[L1][CO6]	[12M]															
<b>7</b>	a) Why co-ordination of signals is needed? b) Briefly explain the different types of co-ordinate signal system?	[L1][CO6] [L2][CO6]	[4M] [8M]															
<b>8</b>	a) What is meant by signal approach dimensions and explain how to determine approach dimensions for a two phase cross-roads? b) The following table gives the flows in the arms of an intersection where a two phase signal is to be designed. Determine the proportion of dimensions of the approaches and the green times for the two phases <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><i>Arm</i></th> <th style="text-align: center;"><i>Flow(vehicle/hour)</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">North</td> <td style="text-align: center;">4000</td> </tr> <tr> <td style="text-align: center;">South</td> <td style="text-align: center;">3800</td> </tr> <tr> <td style="text-align: center;">East</td> <td style="text-align: center;">1000</td> </tr> <tr> <td style="text-align: center;">West</td> <td style="text-align: center;">900</td> </tr> </tbody> </table>	<i>Arm</i>	<i>Flow(vehicle/hour)</i>	North	4000	South	3800	East	1000	West	900	[L1][CO6] [L3][CO6]	[8M] [4M]					
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<b>9</b>	List out the various Traffic control methods & explain any four of them in detail?	[L1][CO6]	[12M]															
<b>10</b>	a) What do you mean by Area traffic control and give the objectives of it? b) Give a brief discussion about Delay at signalized intersections.	[L1][CO6] [L2][CO6]	[6M] [6M]															

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