JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-5th Semester (CE)

COURSE CODE (CREDITS): 25B1WCE531(3) MAX. MARKS: 15

COURSE NAME: Traffic Engineering

COURSE INSTRUCTOR: Dr. Amardeep MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question	CO	Marks
Q1	Define traffic volume and traffic density. State their relationship.	2	0.5
Q2	What is PCU (Passenger Car Unit)? Mention any two factors affecting PCU value.	3	1
Q3	Define spot speed and time mean speed.	2	0.5
Q4	What is the purpose of conducting an **origin-destination (O-D) survey** in transportation planning?	2	0.5
Q5	Differentiate between trip generation and trip attraction.	3	0.5
Q6	What is parking accumulation? How is it represented graphically?	4	1
Q7	Explain the different types of traffic signs with suitable examples.	5	2
Q8	Explain the fundamental relationships between speed, flow and density of traffic.	2	1
Q9	Describe the four stages of the transportation planning process.	1	2
Q10	Explain the factors affecting trip generation and trip attraction in a transportation planning study.	2	2
Q11	Explain the basic principles of traffic signal design. What are cycle length, green time and lost time?	4	2
Q12	At an isolated signalised intersection, the saturation flow rates and design hourly flows for two critical phases are: Phase — Design Flow (veh/hr) — Saturation Flow (veh/hr) I — 600 — 1800 II — 450 — 1500	4	2

MID TEST-1 EXAMINATION AUG-2025

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	The total lost time per cycle is 10 seconds. Using Webster's method, determine: (a) Optimum cycle length. (b) Effective green time available for each phase.		

LATEST EXAMINATION AUG 2016