Subject Code: 2731306   **Date: 24-09-2016**
Subject Name: TFTS   **Sem: 3RD SEM CIVIL PG**
Time: 10:00 TO 11:15   **Total Marks: 30**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

QUE.1	**(A)**	Write a short note on "Goodness of Fit Test".	**5**
	(B)	Write a note on Greenberg's logarithmic model.	**5**

QUE.2	**(A)**	Explain how Fluid Flow Analogy Approach is applicable to study traffic stream Characteristic.	**5**
	(B)	What is force flow condition? Explain and suggest remedial measures for the same in case of urban roads.	**5**

OR

	(B)	Vehicles arrive at a toll booth at an average rate of 300 per hour. Average waiting time at the toll booth is 10s per vehicle. If both arrivals and departures are exponentially distributed, what is the average number of vehicles in the system, average queue length, the average delay per vehicle, the average time a vehicle is in the system?	**5**

QUE.3	**(A)**	How the arrival of vehicle distribution can be obtained? Explain procedure for the same?	**5**
	(B)	A toll booth at the entrance of expressway can handle 800 V.P.H, the time to process a vehicle being exponentially distributed. The flow is 600 V.P.H with a Poissonian arrival pattern. Determine: (i) the average number of vehicles in the system; (ii) the length of the queue; (iii) the average time spent by the vehicle in the system; (iv) the average time spent by the vehicle in the queue.	**5**

OR

	(A)	Explain deterministic and probabilistic model predicting traffic behaviour.	**5**
	(B)	The traffic flow on a highway is q1 = 1800 veh./hr. with speed of v1 = 70km. /hr. As a. the result of an accident, the road is blocked. Vehicle length = 3.33 meters. What is the wave speed (vw)? What is the rate at which the queue grows, in units of vehicles per hour (q)?	**5**

***************************** **ALL THE BEST** *****************************