

School of Civil Engineering

Civil Engineering
ETE - Jun 2023

Time : 3 Hours

Marks : 50

Sem II - MTPE6003 - Computational Techniques In Transportation Engineering

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Examine the Ways to study a system in Simulation. K1 CO2 (2)
2. Explain the Metadata in GPS. K2 CO4 (2)
3. Discuss the Data Dictionaries. K2 CO3 (2)
4. Describe the term simulation. K1 CO1 (2)

5. Explain the GPS Session Rate and its formula. K2 CO5 (2)
6. Explain the fundamentals of GPS accuracy and phase measurement accuracy. K3 CO1 (5)
7. Prepare the Scheduling and Active Queue Management in detail for wide area network. K3 CO2 (5)
8. Optimize the function $F(x) = X^2$ using the crossover method for x in the range $[0, 31]$. Ex. $x=0,1,\dots,30,31$. K4 CO6 (6)

9. Explain in detail the causes of Tripod and tribrach errors. K5 CO4 (8)
10. A confectioner is someone who deals in sweets. The weekly demand in hundred kilogrammes over the past with their regularity is as follows:
Demand / Week 0 5 10 15 20 25
Frequency 2 11 8 21 5 3
They were using the random number generator and the following sequence. produce the necessary interest for the next 10 weeks. The typical weekly need. These numbers were drawn at random: 35,52,13,90,23,73,34,57,35,83,94,56,67,66,60. K4 CO3 (8)

11. Describe the Ionosphere theory and its application in detail. K5 CO5 (8)