

B.E. Civil Engineering (Model Curriculum) Semester - VI
OEC-CE602B - Metro System and Engineering

P. Pages : 1

Time : Three Hours



GUG/S/23/13732

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Diagrams and Chemical equation should be given wherever necessary.
 5. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Write short note on metro act. 8
b) Give an overview of world metro system. 8

OR
2. a) Write short note on standardization of metros. 8
b) Why metro system is needed in India. 8
3. a) Write about the initial survey and investigation in metros. 8
b) Draw neat and well labelled diagram of top down and bottom – up construction method of underground metro stations. 8

OR
4. a) Give an approach adopted in planning traffic integration facilities. 8
b) Write about the environmental and social safeguards in metros. 8
5. a) What do you meant by control system in metros? What is role of O.C.C. (operation control centre). 8
b) Write short note on platform screen doors. 8

OR
6. a) How automatic fare collection works in Indian metros. 8
b) Write short note on signaling system in metros. 8
7. a) Write importance of elevators in metros. 8
b) What is lifts and escalators write about the levels of elevators in metro. 8

OR
8. a) What is the need for the ventilation and air-conditioning in metros. 8
b) What are the features of rolling stock in metros. 8
9. a) Write short note on OHE (overhead equipment) 8
b) What are carbon credits? How do metro trains contribute to reduce air pollution. 8

OR
10. a) What is metro traction? Write about SCADA system in metros. 8
b) What are green initiatives adopted in metro rail system? 8
