

End Semester/ Reappear (Semester V) Examination December, 2024

Programme: Diploma (MiE)

Course: Mine Surveying II

Course Code: 8D.302

Enrolment no. _____

Full Marks: 70

Time: 3 Hrs.

Section I

1. Short Answer type questions. Answer any four.

4 x 5 = 20

- Explain the different types of meridians. What is WCB and QB, define it in detail with suitable example.
- Find out the value of degree of curve if radius is 20m and chord length is 30m
- What is Bowditch method of correcting closing errors? Write the assumptions made in the Bowditch method.
- What is Global Positioning System? Explain briefly.
- Describe the principle involved in Triangulation Survey.
- What are the types of curves? Explain with figure.

Section II

Long Answer type questions. Answer any three.

3 x 10 = 30

- Explain the different sources of error in theodolite work. What are the personal errors?
- Obtain the components of simple circular curve with figure.
- Explain the designation of curve for arc and chord Length [20/30] meters. Obtain relation between degree and radius of curve.
- What is Transition curve? Explain Basic criteria for design of transition curve.
- Write the steps involved in temporary adjustment of transit theodolite. Explain elimination of parallax.

Section III

Application based questions. Answer any one.

1 x 20 = 20

- Obtain relation between degree and radius of curve for arc and chord Length 30 meters.
- Two straight lines intersects at chainage of 1000.5m and angle of intersection is 60° if the radius of curve is 500m, compute all the elements of the curve.
- Explain the followings: -
 - Open traverse and closed traverse
 - Elimination of Parallax.
 - Sources of error in theodolite survey.
 - Balancing of the traverse and its methods.
 - Telescope normal.
