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MI-502 (GS)

B.E. V Semester Examination, June 2020

Grading System (GS) Mining Survey - II

Time: Three Hours

Maximum Marks: 70

Note: i) Attempt any five questions.

- ii) All questions carry equal marks.
- 1. Describe the procedure and accuracy achievement in measurement of coal stock if stock spread over an embankment?
- 2. Explain the sources of Errors in theodolite traverse and suggest how these can be prevented.
- 3. What do you understand by "limit of errors"? Whatshould be the acceptable limits of error for:
 - i) Traversing

ii) Levelling

iii) Triangulation

iv) Miner's dial close traverse

- v) Shaft surveying
- 4. Sketch and describe a Vernier theodolite.

OR

Find the volume of an underground tank which is excavated from level ground to a depth of 4.0 meter. The top, which is rectangular in shape, has an area of $24m \times 8m$ while the bottom is $10m \times 1m$.

- 5. Illustrate types of mine plans and describe the general requirements of mine plans.
- 6. Calculate the length of a transition curve when the rate of radial acceleration is 40 cm/s. Allowable speed on curve is 60 km/h and the radius of the circular curve is 3.00 m.
- 7. a) Sketch and describe planimeter and its uses.
 - b) What are various symbols used in mine plans.
- 8. Explain the following: (Any four)
 - i) Independent Quantity
 - ii) Weight of an observation
 - iii) Most Probable Value (MPV)
 - iv) Most Probable Error
 - v) Conditioned equation
 - vi) Normal Equation
