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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 $24 \mathrm{~m} \times 8 \mathrm{~m}$ while the bottom is $10 \mathrm{~m} \times$ 1 m .
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 $40 \mathrm{~cm} / \mathrm{s}$. Allowable speed on curve is $60 \mathrm{~km} / \mathrm{h}$ 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

