Total No. of Questions : 8]　　　　　　　　　　　*[Total No. of Printed Pages : 1*

Roll No..

MI-8202 (GS)

B.E. VIII Semester Examination, June 2020
Grading System (GS)
Geo-Statistics

Time : Three Hours

Maximum Marks : 70

Note: i)　Attempt any five questions.

　　　ii)　All questions carry equal marks.

1.　Explain followings:
　　a)　Nugget effect
　　b)　Zonal and directional anisotropy

2.　What is Bench compositing? How it is carried out? Mention its advantages?

3.　Explain the following terms:
　　a)　Kurtosis
　　b)　Skewness
　　c)　Variance

4.　Describe covariogram and semivariogram and their estimation.

5.　What is kringing, kringing estimator and kringing error? What are the application of these techniques in mining industry explain in detail.

6.　For a normal population with known variance σ^2, answer the following questions.

　　i)　What is the confidence level for the interval $\bar{x} - 2.14\sigma / \sqrt{n} \leq \mu \leq \bar{x} + 2.14\sigma / \sqrt{n}$?

　　ii)　What is the confidence level for the interval $\bar{x} - 2.49\sigma / \sqrt{n} \leq \mu \leq \bar{x} + 2.49\sigma / \sqrt{n}$?

　　iii)　What is the confidence level for the interval $\mu \leq \bar{x} + 2.00\sigma / \sqrt{n}$?

　　iv)　What is the confidence level for the interval $\bar{x} - 2.00\sigma / \sqrt{n} \leq \mu$?

7.　What is Normal Distribution? Write down the characteristics of normal distribution.

OR

What is geostastistics? Write down application of geostastistics in mining in details with suitable example.

8.　Write notes on the following:
　　a)　Grade-Tonnage relationship
　　b)　Median-mode
　　c)　Classical statics
　　d)　Plotting and Fitting of semivariogram

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