

P. Pages : 2

Time : Three Hours

**GUG/W/16/7122**

Max. Marks : 80

- Notes :
1. Assume suitable data wherever necessary.
 2. Illustrate your answers wherever necessary with the help of neat sketches.
 3. Marks are indicated to the right.

1. a) Discuss in brief the role of minerals in National Economy. **10**
- b) State the components of National Mineral Policy. Discuss in brief appraisal of mineral resources. **6**

OR

2. a) A small Bauxite patch outcrops over an approximately rectangular area 150 x 90m and samples taken from the holes drilled in the centre of each square and the following data was obtained. **10**

No	Depth		% Al ₂ O ₃
	top	bottom	
1	1.2	3.3	55
2	0.9	2.7	58
3	0.3	2.7	60
4	0.6	2.1	55
5	0.9	2.7	57
6	0.9	3.6	62
7	1.8	4.2	64
8	1.5	4.5	66
9	1.2	3.9	65
10	1.5	3.9	63
11	2.4	5.4	68
12	2.1	6.0	67
13	1.8	6.6	66
14	2.1	6.3	66
15	2.1	5.7	67

Calculate

- i) Average grade of the deposit.
 - ii) Average thickness
 - iii) Average overburden
 - iv) Total tonnage
(Assume tonnage factor 2)
- b) Write down the changes made in New national mineral policy. **6**
3. a) State the different methods of sampling and describe any one method in detail. What errors are likely to creep in sampling how will you guard against it? **7**

- b) Write short notes on 9
i) Salting
ii) Requirements of sampling.
iii) Sample weighting.

OR

4. Write short notes on 16
a) Sample preparation.
b) Assay plan
c) Car or wagon sampling.
d) Dump sampling.
5. a) A lime stone deposit, Worth exploitable reserves of five million tonnes is expected to be worked at a rate of 100,000 tonnes per year at a profit of Rs. 5/- per tonne Assuming. that the purchaser wants an interest return 20% with redemption capital at 10% what price should be offered? 8
- b) What is depreciation? Explain any one method of depreciation in detail. 8

OR

6. Describe information to be collected for valuation of a mining property. 16
7. Discuss how mineral wealth of the nation can be conserved. 16

OR

8. a) Explain Budgetary control. 8
b) Advantages and limitations of budget. 8
9. Write short notes on 16
a) Small scale mining in India.
b) Problems of small scale mining.
c) What are the various factors taken into consideration while fixing the price for a mineral commodity?

OR

10. How to arrange for finance to open up a mining project explain any one method of financing. 16
