**Code No: 56090** **R09**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**
**B. Tech III Year II Semester Examinations, April - 2018**
**MINE ECONOMICS**
**(Mining Engineering)**

**Time: 3 hours** **Max. Marks: 75**

**Answer any five questions**
**All questions carry equal marks**
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1.a) Discuss on the profile of Mining industry in India as a major economic activity sector for rapid economic development.
b) List the place of distribution of major minerals in the country. [7+8]

2.a) Explain the Perspective for Base metal ores in India.
b) Explain the various important Components of National Mineral Policy. [7+8]

3.a) Give a breakup of the contents of a balance sheet.
b) What is the internal rate of return of an investment which involves current out lay of Rs. 3,00,000 and results in and annual cash inflow of Rs.60,000 for Seven years? [7+8]

4.a) Define the terms i) Present Value PV ii) Hoskold's Factor.
b) An investment at 10% yearly rate, compound quarterly accumulates to a sum of Rs120,000 in 5 years. What is the Present value of the sum in rupees? [7+8]

5.a) A mine has reserves for exploitation for 50years .what remunerative return is expected on the investment if speculative rate of return is 15% and current safe rate for capital redemption is 10%.
b) What steps involved in PERT analysis? [7+8]

6.a) Explain the chip sampling and its applicability.
b) Explain the Geo-Statistical techniques in mine sampling. [7+8]

7.a) Explain the term "Assaying".
b) Calculate the average grade of Lead from following sample data supplied.
Sample 1: 10 cm × 0.1% Pb
Sample 2: 30 cm × 4.3% Pb
Sample 3: 40 cm × 5.1% Pb
Sample 4: 30 cm × 2.1% Pb
Sample 5: 20 cm × 0.6% Pb
Minimum stoping width :1 m cut-off grade:3% [5+10]

8.a) State the details to be shown on Assay Plan.
b) Describe the principal methods for Reserve computation methods. [7+8]

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