

Roll No.....

Total No. of Unit : 04

Total No. of Printed Pages : 03

Code No. : 03/306

Third Semester Examination, Dec. 2018

M.Sc. GEOLOGY

Paper - III

MINERAL EXPLORATION

Time : 3 Hrs.

Max. Marks : 80

- Part A and B of each question in each unit consist of very short answer type questions which are to be answered in one or two sentences.
Part C (Short answer type) of each question will be answered in 200-250 words.
- Part D (Long answer type) of each question should be answered within the word limit 400-450.

Unit - I

Q.1 A Give few names/examples of regional guides. (2)

Q.1 B Write the definition of sampling. (2)

Q.1 C Write comments on typical activities of preliminary reconnaissance and exploration. (4)

OR

Describe the role of Physiographic Guides in mineral exploration.

Q.1 D Describe the methods of grade and tonnage calculation. (12)

OR

Discuss the various structural guides of ore search.

P.T.O.

(2)

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Unit - II

Q.2 A Magnetic method of prospecting is used to which type of mineral deposits. (2)

Q.2 B Write the definition of magnetic anomaly. (2)

Q.2 C. Write, in brief, basic principles of gravimeter. (4)

OR

Give a short account on the basics of seismic wave propagation.

Q.2 D Discuss the procedures of magnetic field survey and data reduction. (12)

OR

Describe the S. P. Method of resistivity survey and procedures of its data interpretation.

Unit - III

Q.3 A Define the geochemical cycle. (2)

Q.3 B Write the name of factors which control the geochemical mobility. (2)

Q.3 C Write a note on various type of borehole-logging. (4)

OR

Give a note on usefulness and types of geochemical surveys.

Q.3 D Make a detail discussion on pedogeochemical surveys. (12)

OR

Describe, in detail, lithogeochemical surveys.

(3)

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Unit - IV

Q.4 A Write the different type's name of placer deposits which can locate on aerial photographs. (2)

Q.4 B Write type name of minerals which individual species can identify by Hyperspectral imaging systems. (2)

Q.4 C Write a note on role of relief as geomorphological principle in mineral exploration. (4)

OR

Give a brief on physiography as geomorphological principle in mineral exploration.

Q.4 D Describe, in detail, application of photogeology in mineral exploration. (12)

OR

Discuss, in detail, any case study of exploration of non-metallic mineral deposits.

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