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(6th Semester)

GEOLOGY

TWELFTH (B) PAPER

(**Economic Geology**)

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 5)

1. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

(a) In nature, the metallic ore deposits commonly occur as

(i) oxides ()

(ii) sulphides ()

(iii) carbonates ()

(iv) chlorides ()

(b) The gangue minerals in contact metasomatic deposits comprise an assemblage of high temperature metamorphic minerals, called

(i) vugs ()

(ii) skarn ()

(iii) horses ()

(iv) gossan ()

(c) Gold deposits of India are

(i) sufficient ()

(ii) insufficient ()

(iii) alarming low ()

(iv) None of the above ()

(d) Coal deposits in North-East India are mainly formed during

(i) Tertiary period ()

(ii) Mesozoic era ()

(iii) Paleozoic era ()

(iv) Proterozoic period ()

(e) Which of the following tectonic settings is commonly associated with gold deposits?

(i) Island arc ()

(ii) MOR ()

(iii) Within plate ()

(iv) Subduction zone ()

(4)

SECTION—B

(Very Short Answer)

(Marks : 15)

2. Define the following :

3×5=15

(a) Tenor of ore

(b) Gossan

(c) Distribution of bauxites

(d) Solar energy

(e) Banded iron formation

VI/GEOL (xii)(b)

2014

(6th Semester)

GEOLOGY

TWELFTH (B) PAPER

(**Economic Geology**)

Full Marks : 55

Time : 2 hours

(PART : B—DESCRIPTIVE)

(*Marks : 35*)

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Give an account of the common structure of ore deposits. 7
2. Write notes on the following : $3\frac{1}{2}+3\frac{1}{2}=7$
 - (a) Paragenesis of ore deposits
 - (b) Metallic ore-forming minerals

(2)

UNIT—II

3. What is hydrothermal solution? Write a note on the classification of hydrothermal deposits. 2+5=7
4. Write notes on any *two* of the following : 3½×2=7
- (a) Oxidation and supergene enrichment
 - (b) Early magmatic deposits
 - (c) Residual concentration
 - (d) Sedimentation process

UNIT—III

5. Write an account of copper deposits of India with special reference to their mode of occurrence, origin and distribution. 7
6. Mention the different methods of geophysical prospecting. Describe seismic reflection method in mineral exploration. 2+5=7

UNIT—IV

7. What are non-conventional energy resources? Describe in detail about geothermal energy. 2+5=7

(3)

8. Give an account of the different processes involved in the formation of coal. Add a note on types of coal. 4+3=7

UNIT—V

9. Write an account of the various factors controlling availability of economic minerals. 7
10. Discuss the concept of metallogenic provinces. Add a note on metallogenic provinces in India. 4+3=7
