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| Name:   | ••••• |
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## SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2022

(CUCBCSS-UG)

#### CC15U GL6 B19 – ORE FORMING PROCESSES

(Geology - Core Course)

(2016 to 2018 Admissions - Supplementary/Improvement)

Time: Three Hours

Maximum: 80 Marks

Draw neat diagrams wherever necessary.

## Part- A

Answer *all* questions. Each question carries 1 mark.

- 1. Intensely oxidized, weathered or decomposed rock, usually the upper and exposed part of an ore deposit or mineral vein.
- 2. Metallic content of ore.
- 3. Mineral deposit that formed later than the enclosing rocksa mineral deposit that formed later than the enclosing rocks.
- 4. Natural concentration of heavy minerals caused by the effect of gravity on moving particles.
- 5. A mineral or mineral aggregate that yields information concerning the limits of temperature within which it was formed.
- 6. Zone found near the earth's surface that forms as a result of chemical decomposition of unstable minerals under the action of surface waters and groundwater.
- 7. A period of time during which a significant concentration of deposits of one metal formed in one or more provinces.
- 8. An example for mineral deposits formed by chemical process.
- According to Lindgren's classification, a hydrothermal deposit which is formed at 300 °C to 500 °C and at very high pressure is ......
- 10. The non-metallic minerals associated with ore minerals which are usually discarded are called .....

#### $(10 \times 1 = 10 \text{ Marks})$

## Part- B

Answer any *ten* questions. Each question carries 2 marks.

- 11. Contact metasomatic process and deposits.
- 12. Skarn deposits.
- 13. Cavity filling deposits.

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14. Ore shoot.

- 15. Evaporites.
- 16. Geochemical affinity of elements.
- 17. Eolian placer deposits.
- 18. Grade of ore.
- 19. Gossan
- 20. Epigenetic and syngenetic deposits.
- 21. Asbestos minerals.
- 22. Tenor of ore.

 $(10 \times 2 = 20 \text{ Marks})$ 

#### Part- C

Answer any *five* questions. Each question carries 6 marks.

- 23. Control of ore localization.
- 24. Metallogenic epochs and provinces.
- 25. Formation of Asbestos.
- 26. Residual concentration and deposits.
- 27. Wall rock alteration.
- 28. Metamorphic deposits.
- 29. Mineral deposits of Kerala.
- 30. Oxidation and supergene sulphide enrichment.

#### $(5 \times 6 = 30 \text{ Marks})$

# Part- D

Answer any two questions. Each question carries 10 marks.

- 31. Explain genetic classification of mineral deposit.Ellaborate on Lindgren and Bateman classification of mineral deposits with neat sketches.
- 32. Describe the sedimentary process associated with mineral deposits and principles involved in sedimentation. Add a note on cycle of iron deposits.
- 33. Explain hydrothermal process of mineral deposits with appropriate diagrams.
- 34. Describe metallogenic epochs and provinces.Add a short note on geologic thermometers and its methods of measurement.

 $(2 \times 10 = 20 \text{ Marks})$ 

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