## SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2020
(CUCSS - PG)
### CC19P GEL2 C06 - ECONOMIC GEOLOGY
(Applied Geology)
(2019 Admission - Regular)

Time: Three Hours                                        Maximum: 30 Weightage

**Part A** (Short Answer Type)
Answer *all* questions. Each question carries 2 weightage.

1. Replacement texture.

2. Saprolite.

3. Ferricrete.

4. SEDEX ores.

5. Strategic minerals of India.

6. Exclusive Economic Zone (EEZ)

7. Gas hydrates.

**(4  x 2 = 8 Weightage)**

**Part B** (Short Essay Type)
Answer any *seven* questions. Each question carries 3 weightage.

8. Explain control of ore localization.

9. Thermometry of ores using fluid inclusions.

10. Add a note on the key features of large nickel sulphide systems.

11. Grade of iron ore from Singhbhum area.

12. Geologic and genesis of U deposits of Jaduguda.

13. Prospecting license and mining leases for mineral exploration and exploitation.

14. Explain the geologic settings and distribution of Neyveli lignit deposits.

**(4 x 3 = 12 Weightage)**

**Part C** (Long essay type)
Answer any *two* questions. Each question carries 5 weightage.

15. The different schemes of classifying ore deposits have different purposes and value. In addition to classification based on genetic processes of ore deposit formation, classifications are available based on commodity, host-rock type and tectonic environment. Under what practical situations would each of these classification schemes be of use.

16. Chromite has been suggested to be a marker of proximity to sulfide ore in komatiites. Based on your knowledge of the processes that may give rise to crystallization of chromite in magmatic systems, and the processes that are proposed to give rise to contact massive sulfide ores in komatiites, explain why this may be so.

17. Compare the geological setup of Khetri and Malanjkhand copper deposits.

18. What are the elements of National Mineral Policy with a special emphasis on The Mines and Minerals (Development and Regulation) (MMDR) Act?

**(2 x 5 = 10 Weightage)**

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