20P148 (Pages: 2) Name: ……….……………

Reg. No………………….....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020
(CBCSS-PG)
(Regular/Supplementary/Improvement)
CC19P GEL1 C01 – PHYSICAL GEOLOGY AND GEOMORPHOLOGY
(Applied Geology)
(2019 Admission onwards)

Time: Three Hours   Maximum: 30 Weightage

I. Short answer type questions. Answer any *four* questions.

1. What is du Boys Equation?

2. Compare Falls and Finds.

3. Explain the formation of rip currents.

4. For a particle of mass 'm' resting on a slope, discuss the component of force promoting downslope movement.

5. Discuss Low Velocity Zone (LVZ).

6. Elucidate the general reducing environment in kayals.

7. Account for the increase in seismic velocities in mantle with depth even though its composition is relatively homogenous.

(4 x 2 = 8 Weightage)

II. Short essay questions. Answer any *four* questions.

8. Examine convection currents in mantle of the Earth.

9. Assess the significance of O, A, E and B horizons of soil profile.

10. Discuss a) grain Reynolds number and b) hydraulic jump

11. Examine the base level of desert streams.

12. Evaluate the formation of longshore currents.

13. Analyse the sources of heat in the interior of the Earth.

14. Compare between translational and rotational slides.

(4 x 3 = 12 Weightage)

III. Long essay. Answer any *two* questions.

15. Appraise the roles of (a) components of gravity (b) water content and (c) angle of repose on mass movements.

16. Evaluate the influence of secondary circulation in the formation of meanders. Analyse the control of discharge and sediment load on formation of braided channels.

17. Explain the three types of convergent margins. Discuss the mechanism of back arc spreading.

18. Examine the reasons for (a) liquid nature of outer core (b) solid nature of inner core and c) the influence of core on the magnetism of Earth.

(2 x 5 = 10 Weightage)

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