1304E028

Candidate's Seat No :_____

M.Sc. Sem-4 Examination

508

Geology

Time : 2-00 Hours] **April 2022** **[Max. Marks : 50**

Section –I

Q - 1 Expalin landslides and excavations in mining industry with suitable examples from India. (14)

Q - 2 (i) Design of buildings used in seismic zone -IV. (07)

(ii) Principles and monitoring of terrain evaluation (07)

Q - 3 Explain engineering impact assessment of engineering project with case study of Statue of Unity Gujarat. (14)

Q - 4 (i) Foundation stability, silting and seismo-tectonic factors. (07)

(ii) Rock mass improvement techniques. (07)

Q - 5 Describe oceanic circulation, wave, currents and trenches with suitable examples. (14)

Q - 6 (i) Geo-chronometry of deep - sea deposits. (07)

(ii) Tectonic history of the oceans. (07)

Q - 7 Explain Measures of central tendency and measures of variation. (14)

Q - 8 (i) Marks obtained by 9 students in statistics are given below. (07)

52 75 40 70 43 65 40 35 48

Calculate the arithmetic mean, median and variance.

(ii) Compute the mode of the following distribution: (07)

Class	0-7	7-14	14-21	21-28	28-35	35-42	42-49
Frequency	19	25	36	72	51	43	28

Section –II

Q - 9 **Answer any eight of the following short questions.** (08)

(i) Name two localities from Gujarat which are included in seismic zone –III.

(ii) Define seismic technology.

(iii) What is relation between tunnel parallel to folding?

(iv) What is logging?

(v) Give three examples of major dams of India.

(vi) Name three principle types of foundation for building.

(vii) Mention three ocean morphological features.

(viii) Give composition of the polymetallic nodules.

(ix) Name two oceans where cobalt rich crust is formed.

(x) Define Median.

(xi) What is Skewness?

(xii) Define Kurtosis.