Enrollment 1	No:	Exam Seat No:	
		UNIVERSITY	
	Winter Exa	mination-2022	
Subject Nan	ne : Geology and Earthquake E	ngineering	
Subject Code: 4TE06GEE1		Branch: B.Tech (Civil)	
Semester: 6	Date: 20/09/2022	Time: 11:00 To 02:00	Marks: 70
(2) Instr(3) Draw	of Programmable calculator & ar uctions written on main answer by w neat diagrams and figures (if no time suitable data if needed.	•	ohibited.
b) c) d) e) f) g) h) i) j) k) l) m)	Attempt the following question Explain the following terms: Disintegration Denudation Denudation Deflation Decomposition Degradation Deposition Seismograph Seismograph Seismogram Isoseismal line Homoseismal line Meisoseismal line Focus Epicenter Epicentral Distance	ns:	(14)
Attempt any	four questions from Q-2 to Q-	8	
Q-2 A B Q-3 A B	and inter plate earthquake. Attempt all questions Explain earthquake design philo What are the two seismic design	nquakes. Give two names of intra p	(14) 07 account 07



Attempt all questions
Explain rigid diaphragm effect in details
Explain the ductile detailing of Column as per latest Indian standard.

Q-4

A B (14) 07

07

Q-5		Attempt all questions	(14)
	\mathbf{A}	Explain 'column jacketing' in details with neat sketch.	07
	В	What is base isolation? Explain concept of base isolation. Discuss various seismic isolators.	07
Q-6		Attempt all questions	(14)
	\mathbf{A}	What are the causes and effects of liquefaction.	07
	В	Write brief note on sedimentary rock and metamorphic rock.	07
Q-7		Attempt all questions	(14)
	\mathbf{A}	Give the classification of fold and faults.	07
	В	Derive expression for the response of SDOF free damped structural system.	07
Q-8		Attempt all questions	(14)
	\mathbf{A}	Explain DVA curves in detail.	07
	B	What is mathematical modeling? Enlist the dynamic parameters of	07
		model. Prepare mathematical model of the system shown in the Figure 1	
	and find natural frequency of the system.		

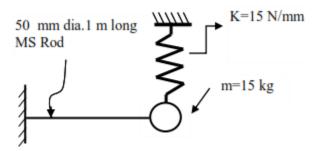


Figure 1.

