Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- V

COURSE CODE : CE 510 **DURATION : 3 (THREE)HRS**
COURSE TITLE : EARTHQUAKE RESISTANT DESIGN & CONSTRUCTION **MAXIMUM MARKS : 75**
PASS MARKS : 35 %
SESSION : JULY-DEC'2021

NOTE:
1. All the questions are compulsory
2. Attempt any 5 (five) questions.
3. Mark for each question is shown against it.
4. Assume suitable logical data wherever necessary.

1.	**(a)**	What do you understand by seismic zones? Write short notes about seismic zones of India.	**(6)**
	(b)	Explain in details about Base Isolation technique.	**(6)**
	(c)	Define ductility and mention the importance of ductility to the structure.	**(3)**
2.	**(a)**	Explain the difference between Magnitude and Intensity of an earthquake.	**(7)**
	(b)	Explain the use of timber construction in earthquake resistant design.	**(8)**
3.	**(a)**	How architectural features affect seismic resistance of building?	**(6)**
	(b)	Define seismic wave. What are the various types of seismic wave.	**(9)**
4.	**(a)**	Discuss in details about classification of an earthquake.	**(6)**
	(b)	What are the criteria of design of earthquake resistant building?	**(5)**
	(c)	What is the use of separation joints in structural configuration?	**(4)**
5.	**(a)**	Define faults. Explain its types.	**(5)**
	(b)	How the concrete bands and ties are used in masonry construction?	**(6)**
	(c)	Write short notes on seismic dampers.	**(4)**
6.	**(a)**	Write short notes on i. Storey drift ii. Centre of mass and Centre of rigidity iii. Modified Mercalli intensity scale.	**(4x3)**
	(b)	Write three causes of an earthquake.	**(3)**
7.	**(a)**	Define moment of resistance of frame. Explain OMRF and SMRF.	**(7)**
	(b)	Briefly define the general principles of earthquake resistant design.	**(5)**
	(c)	Write short notes on interior of earth.	**(3)**
8.	**(a)**	What do you mean by shear wall? Why these are provided in RC building?	**(6)**
	(b)	Explain MCE and DBE.	**(5)**
	(c)	Write short notes on. i. Seismograph ii. Epicenter iii. Focal depth iv. hypocenter	**(4x1)**

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