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**6th Sem / Civil, Brick Tech., (Elective)**  
**Constr. Mgmt., Civil Engg. (Spl Highway Engg.)**

**Subject:- Earthquake Resistant Building Construction.**

Time : 3Hrs. M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Focus is also known as \_\_\_\_\_. (CO1)

- a) Hypo centre
- b) Focal Depth
- c) Body wave
- d) Epicentre

Q.2 The minor shocks preceding the major earthquake are called (CO1)

- a) Tectonic
- b) Foreshocks
- c) Tsunami
- d) Epicentre

Q.3 The masonry construction is also known as \_\_\_\_\_ construction. (CO2)

- a) Engineered
- b) Non- Engineered
- c) Non Structural
- d) None of these

Q.4 Which is not a structural component of a building. (CO2)

- a) Parapet wall
- b) Long wall
- c) Shear wall
- d) Partition wall

Q.5 In 1893 was published in the year \_\_\_\_\_. (CO3)

- a) 1960
- b) 1966
- c) 2002
- d) 2000

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Q.6 \_\_\_\_\_ value of zone factor have been allotted to zone IV. (CO4)

- a) 0.25
- b) 0.24
- c) 0.26
- d) 0.27

Q.7 Retrofitting stands for increasing. (CO5)

- a) Strength
- b) Permissible height
- c) Size of building
- d) All of the above

Q.8 Zone V have \_\_\_\_\_ seismic intensity. (CO4)

- a) Server
- b) Very server
- c) Low
- d) None of these

Q.9 The waves which travel fastest and first recorded. (CO1)

- a) Rayleigh waves
- b) Primary waves
- c) Secondary waves
- d) Love waves

Q.10 Most important phase in disaster management is called as \_\_\_\_\_. (CO7)

- a) Pre-disaster
- b) Post-disaster
- c) Both
- d) None

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

Q.11 The vatical distance between epicenter and hypochondria is \_\_\_\_\_. (CO1)

Q.12 Primary and secondary waves are also known as \_\_\_\_\_. (CO1)

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- Q.13 The seismic response of traditional built structure is \_\_\_\_\_. (CO2)
- Q.14 Too long and too tall walls are \_\_\_\_\_ to ground shaking. (CO2)
- Q.15 ASR stands for \_\_\_\_\_. (CO3)
- Q.16 \_\_\_\_\_ number of seismic codes are available. (CO3)
- Q.17 Opening in diaphragm should be \_\_\_\_\_. (CO4)
- Q.18 Most preferred shape for earthquake resistant building is \_\_\_\_\_ & \_\_\_\_\_. (CO5)
- Q.19 Removal of people to safer place is called \_\_\_\_\_. (CO7)
- Q.20 The after effect of disaster is known as \_\_\_\_\_. (CO7)

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Explain the following terms : a) epicenter b) Focal depth (CO1)
- Q.22 Enlist any five characteristic of primary waves. (CO1)
- Q.23 Write a short note on earthquake magnitude and intensity. (CO1)
- Q.24 Describe briefly In-plane failure with their causes. (CO2)
- Q.25 Explain base isolation with their advantages. (CO3)
- Q.26 Write a short note on special construction methodologies. (CO3)

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- Q.27 Enlist different type of seismic codes used in ERBC as per bureau of IS ? (CO4)
- Q.28 Write any five importance of seismic zone mapping. (CO4)
- Q.29 Explain objectives of strengthening in any structure? (CO5)
- Q.30 Define global retrofitting technique. (CO5)
- Q.31 Explain how retrofitting of traditionally built construction is done. (CO5)
- Q.32 What are role of horizontal bends in masonry building. (CO6)
- Q.33 Explain ductile detailing provision of IS 13920:1993 for RCC building. (CO6)
- Q.34 Define rescue worker ? Explain their role during a disaster? (CO7)
- Q.35 Describe REPEAT in rescue by step? (CO7)

### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Describe body waves with their types and characteristics? (CO1)
- Q.37 Explain tips and precautions should be observed while planning and designing of earthquake resistant building. (CO3)
- Q.38 Explain in detail natural and manmade disaster. (CO7)
- Note:** Course Outcome (CO) mentioned in the question paper is for official purpose only.

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