

Q.20 Enlist any five objectives of retrofitting in RCC structures?

Q.21 Describe Disaster with their type.

Q.22 What is casualty management and its importance?

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Describe the various types of seismic dampers and their applications in different structures?

Q.24 What is base Isolation and advantages of base isolators in earthquake resistant construction?

Q.25 What is disaster management and explain the functions of disaster management?

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### 6th Sem / Civil

### Subject : Earthquake Resistant Building Construction

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 In which seismic zone in India highest earthquake risk located?

- a) Zone II
- b) Zone III
- c) Zone IV
- d) Zone V

Q.2 Which Instrument measures seismic waves?

- a) Barometer
- b) Thermometer
- c) Seismograph
- d) Anemometer

Q.3 Out of plane failures occurs when walls are subjected to:

- a) Torsional forces
- b) Vertical Loads
- c) Seismic forces perpendicular to their surface
- d) Seismic forces parallel to their plane

Q.4 What is the primary purpose of pneumatic systems in earthquake resistant construction?

- a) Enhance aesthetic appeal
- b) Absorb and dissipate seismic energy
- c) Provide vertical Supports
- d) Reduce construction costs

Q.5 What does IS: 13920-1993 focus on?

- a) Foundation design
- b) Ductile detailing of reinforced concrete structure
- c) Cost optimizing of seismic projects
- d) Strengthening steel structure

Q.6 What is the primary goal of disaster Rescue?

- a) Minimize financial loss
- b) Save lives and stabilize affected areas
- c) Prevent property damage
- d) Improve communication systems

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Earthquake that occurs at plate boundaries are called \_\_\_\_\_ earthquake.

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Q.8 The horizontal resisting elements are termed as \_\_\_\_\_

Q.9 Strength of structure should be \_\_\_\_\_ along the height of building.

Q.10 \_\_\_\_\_ is a measure natural disaster.

Q.11 Which \_\_\_\_\_ Code provides the guideline for seismic evaluation and retrofitting of RCC building.

Q.12 The record of earthquake is known as \_\_\_\_\_.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Define S-waves and characteristics of S-waves? (any four)

Q.14 Describe the classifications of earthquake?

Q.15 Define In-plane failure. What are its main causes?

Q.16 What are the type of seismic dampers and explain in any two in detail.

Q.17 Define the key objectives of earthquake resistant building design?

Q.18 What are the various aspects covered by IS: 13828-1993?

Q.19 Define jacketing with Advanced Materials and its application?

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