- (b) Write general provisions as per code against earthquake for masonary load bearing structures.
- What do you mean by hazard resistant construction?
   Explain in detail the modern techniques used for hazard resistant construction.



## 24512

# B. Tech 7th Sem. (Civil Engineering) Examination – June, 2016

DISASTER MITIGATION AND MANAGEMENT

Paper: CE-403-F

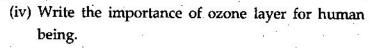
Time : Three Hours ]

[ Maximum Marks: 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note: Attempt five questions in all. Question Number 1 is compulsory. Attempt one question from each Section. All questions carry equal marks. Assume missing data, if any, suitable.

- 1. (i) What are the different types of earthquake zones?
  - (ii) Describe different bands that reduce the effect of earthquake.
  - (iii) Describe the disasters that take place in coastal areas.



- (v) Describe the occurrence of Tsunami.
- (vi) What do you mean by 'Tectonic Plates'?
- (vii) What is shear wall? What is the importance of it?
- (viii)Write any three disasters that occurred in India recently.
- (ix) What do you mean by disaster profile analysis?
- (x) Why the code recommends simple and symmetrical structures?  $10 \times 2 = 20$

#### SECTION - A

- 2. (a) What are the causes of atmospheric disaster?
  Describe in detail the effects of it on the society ?10
  - (b) Explain in detail the role of an engineer to mitigate the damage caused by disaster.10
- 3. (a) Write a short note on integrated approach by different agencies to reduce the effects of any disaster.
  - (b) What is disaster ? Describe in detail the hydrological and marine disaster. 10

### SECTION - B

- 4. Explain in detail the disaster occurred in Bhuj and Uttarkashi.
- 5. (a) What do you mean by disaster mitigation?Explain the methods to reduce the effect of earthquake.
  - (b) What do you mean by geological mass movement?
     Explain the causes of occurrence of land sliding.
     Also discuss the preventive measures to control it.

#### SECTION - C

- (a) Describe in detail the causes and preventive measures of forest fire.
  - (b) What do you mean by mine disaster? Explain in detail.
- 7. (a) Define earthquake. What are the causes of earthquake and its ill-effects on the people? 10
  - (b) Briefly describe wind and water driven disasters.

#### SECTION - D

- **8.** (a) Describe the effects of earthquake on soil behavior. Also explain the failure deformation. 10
- 24512-2,250 -(P-4)(Q-9)(16) (3)

10