

(b) Write general provisions as per code against earthquake for masonry load bearing structures. 10

9. What do you mean by hazard resistant construction ? Explain in detail the modern techniques used for hazard resistant construction. 20

Roll No. ....

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.

- (iv) Write the importance of ozone layer for human being.
- (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. 10
- (b) What is disaster ? Describe in detail the hydrological and marine disaster. 10

24512-2,250 -(P-4)(Q-9)(16) (2)

#### SECTION - B

4. Explain in detail the disaster occurred in Bhuj and Uttarkashi. 20
5. (a) What do you mean by disaster mitigation ? Explain the methods to reduce the effect of earthquake. 10
- (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. 10

#### SECTION - C

6. (a) Describe in detail the causes and preventive measures of forest fire. 10
- (b) What do you mean by mine disaster ? Explain in detail. 10
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. 10

#### 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)

P. T. O.