

Roll No. ....

**24512**

**B. Tech. 7th Semester (Civil Engineering)**

**Examination – December, 2012**

**- DISASTER MITIGATION & MANAGEMENT**

**Paper : CE-403-F**

**Time : Three hours ]**

**[ Maximum Marks : 100**

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

**Note :** Attempt five questions in all, selecting at least one from each Section. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Write down **three** countries where major earth quake has occurred in recent past.  $2 \times 10 = 20$
- (b) What are the types of earthquake zone ?
- (c) Give an example of any major atmospheric disaster in World.
- (d) Why does code recommends simple and symmetrical configuration of any structure.
- (e) What do you understand by soft floor in multi storied structure ?

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- (f) Give an example of any major mining disaster in India.
- (g) Explain, how deforestation helps in controlling land slider ?
- (h) How does a cyclone is developed ?
- (i) Name any *three* disaster that can take place in coastal/marin area.
- (j) What do you understand by shear wall ?

### SECTION – A

- 2. (a) To reduce the effect of any disaster integrated effort of all agencies involved are required. Explain it.  $2 \times 10 = 20$
- (b) Write a short note on engineers role in mitigate the damage caused due to any disaster.
- 3. (a) India is having a long coastal line and is vulnerable to marine disaster. What are these disaster and how does it effect population ?  $2 \times 10 = 20$
- (b) With increasing industrialization, the atmosphere is seriously affected. Describe in detail these effects.

### SECTION – B

- 4. (a) Write a short note on Bhuj disaster.  $2 \times 10 = 20$

- (b) What are various atmospheric effect ? Which can create large scale disaster discuss them ?
5. (a) How can you reduce effect of a major earth quake ? Discuss them in detail.  $2 \times 10 = 20$
- (b) Landslide is a recurring problem in hilly areas. Discuss the measures to control it.

### SECTION - C

6. (a) Large number of life has been lost in past in mine disaster. Describe any such disaster in detail.  $2 \times 10 = 20$
- (b) What do you understand by cyclone and hurricane ? Discuss, how it is generated and how can its effect can be reduced ?
7. (a) Write a short note on forest fire.  $2 \times 10 = 20$
- (b) Earthquake can create large scale loss of life and property. Discuss the measures to reduce these losses.

### SECTION - D

8. (a) What do you understand by ductile detailing of reinforcement ? Describe it in detail.  $2 \times 10 = 20$
- (b) Write general provisions as per IS code to be followed in earthquake resistant building.

9. (a) Write a short note on effect of earthquake on soil characteristics.  $2 \times 10 = 20$

(b) Present day design philosophy of earthquake resistant building accepts certain amount of permanent deformation. Discuss it briefly.