

## **Assignment For Diploma in CIVIL Engineering 6<sup>th</sup> Sem.**

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The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 2 long answer questions of 10 marks each

### **All questions are compulsory.**

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

➤ Session-2019

### **List Of Suggested Questions**

The list of suggested questions are for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

### **List of Practical and suggested practical's**

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

### **Education Delivery Schedule (EDS)**

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

<b>Subject code</b>	<b>Subject name</b>
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DCE-61	Environmental pollution & control
DCE-62	Design of steel & masonry structure
DCE-63	Construction enterprenership Development
DCE-64	Civil engg drawing
<b>DCE-65</b>	<b>Earthquake</b>

## Cover page of Assignment

ID NUMBER .....

NAME .....

COURSE Diploma

STREAM CIVIL.....

SEM 6<sup>th</sup> .....

SUBJECT CODE .....

SUBJECT NAME .....

**Assignments will be completed by the Student in his/her own handwriting.**

# Environmental pollution & control

## Assignment

### SEC A

- Q1. What are the various requirements for warehouse of cement?
- Q.2 What is the method's of batching aggregate ?
- Q.3 Define the various types of mixture.
- Q4. Find out working hour required to complete a concrete slab  $30 \times 30 \times 0.2\text{m}$  using 200 T mixture with 4 min. complete cycle ? (Take efficiency 90 %)
- Q5. Weight of moist soil sample with containers 3 kg after over during for 24 hrs. the weight of container with soil sample remains 3 kg 198 gram . Calculate water content.

### Sec B

- Q1. Explain oven during method for determination of water content .
- Q2. Define water cement ratio and effect of water cement ratio on physical structure of hydrated cement.

## Design of steel & masonry structure

### Assignment

#### SEC A

1. Discuss single circuit, double circuit and multiple circuit towers.
2. What are the various loads acting on towers ?
3. Write down the design principle of self-supporting steel chimney with an example, assuming suitable data
4. Explain briefly the design steps for cross girders in plate girder bridges.
5. Briefly describe the design steps of tension member.

#### Sec B

- 2 . (a) Describe the steps involved in the design of self-supported steel chimney with lining including foundation.
- (b) Design a horizontal tension member carrying a load of 600 kN.  
The length of the member is 3 metres. The member is connected to 4.5 cm thick gusset plate by 20 mm rivets.
3. (a) Discuss in detail about the analysis and design of towers
- (b) Design a rectangular pressed steel tank for a capacity of 1,50,000 litres and height of staging equal to 12 m.

# Construction enterprenership Development

## Assignment

**SEC A Q.1** What is the physical properties of ordinary Portland cement ?

**Q.2** What are the properties of plain cement concrete ?

**Q.3** What are the tensile strength of concrete ?

**Q.4** (a) What are the grades of steel used in R.C.C ?

(b) What are the merits and demerits of R.C.C ?

**Q.5** (a) What is main function of steel in R.C.C ?

(b) Define the bending theory of beam. What assumption are taken into account ?

## Part B

**Q1.** In working stress method , What stress are taken for different concrete grades as well as steel grades ?

**Q2.** What are critical and actual neutral axis in R.C.C beams and how do we find  $X_a$  and  $X_c$  ?

# Civil Engg. Drawing

## Part A

- Q1. Describe the limit state method of design of RRC structures.
- Q2. Describe with neat sketches the detailing of one-way and two-way slabs.
- Q3. Discuss different types of loads that are considered for the design of a roof truss.
- Q4. Discuss isolated and combined footing.
- Q 5. Design a column to carry an axial service load of 1225 k.N. Use M 25 and Fe 415. The effective length of the column is 3.25 m.

## **PART-B**

- Q 1 .Describe different types of rivets.
- Q 2, Discuss the types of tension members. What are the differences between single angle members and double angle members ?

# **Earthquake**

## **PART-A**

1. What are the possible defects in timber ? Describe them with their figures.
2. Give the classification of rocks. Discuss them in brief.
3. Discuss the common building stones, with their uses.
4. Explain Slump Test for workability of concrete, with a neat sketch. Discuss the factors affecting workability.
5. What are the qualities of glass ? Discuss the various varieties of glass and their uses in the building industry.

## **PART-B**

1. Discuss the causes of failure of foundations.
2. How are new foundations constructed adjacent to an old existing structure ?