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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING  
END TERM EXAMINATION - JUN 2023**

**Semester :** Semester VI - 2020

**Course Code :** CIV2039

**Course Name :** Sem VI - CIV2039 - Construction Quality and Safety

**Program :** CII&CIV

**Date :** 12-JUN-2023

**Time :** 9.30AM - 12.30PM

**Max Marks :** 100

**Weightage :** 50%

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**Instructions:**

- (i) Read all questions carefully and answer accordingly.*
  - (ii) Question paper consists of 3 parts.*
  - (iii) Scientific and non-programmable calculator are permitted.*
  - (iv) Do not write any information on the question paper other than Roll Number.*
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**PART A**

**ANSWER ALL THE QUESTIONS**

**(5 X 4 = 20M)**

1. State any four factors that contributes to accidents at the construction site.  
(CO3) [Knowledge]
2. List the unique features of any construction project.  
(CO1) [Knowledge]
3. Define Risk management. What happens if risks are ignored?  
(CO4) [Knowledge]
4. Write notes on the role of the following as Stakeholders in a project.  
a) Contractor    (b) Lawyer/ Insurer  
(CO1) [Knowledge]
5. What do you mean by Quality of Conformance?  
(CO2) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**(4 X 10 = 40M)**

6. Total Quality Management (TQM) is a management approach that aims to achieve organizational excellence by focusing on quality improvement, customer satisfaction, and continuous process refinement. Mention any ten characteristics of Total Quality Management.  
(CO2) [Comprehension]

7. Risk management is a process that continues towards the life cycle of a project. Its objective is to reduce the likelihood of the occurrence of the risk. The Risk management process takes place in various stages coming under Qualitative and Quantitative risk analysis. Explain each of these stage.

(CO4) [Comprehension]

8. Safe construction practices should be followed while carrying out any construction works. Keeping in mind the construction aspects, what are the measures to be taken while performing: (i) Excavation (ii) Drilling and Blasting.

(CO3) [Comprehension]

9. There are several forms of business organizations that one should consider when starting a business, as they play a crucial role in making important decisions. It is essential to dedicate sufficient time to research and comprehend the functioning of each major organizational structure to make an informed choice for your company. What are the various business organizations that you can come across, if you were to start a business? Give detailed information about any five of them.

(CO1) [Comprehension]

### PART C

#### ANSWER ALL THE QUESTIONS

(2 X 20 = 40M)

10. Benchmarking is the competitive edge that allows organizations to adapt, grow, and thrive through change. Benchmarking is the process of measuring key business metrics and practices and comparing them within business areas or against a competitor, industry peers, or other companies around the world—to understand how and where the organization needs to change in order to improve performance.

(i) What are the four main types of benchmarking discussed in the topic?

(ii) What are the benefits of Benchmarking?

(CO1) [Application]

11. Four laborers were installing underground PVC in trenches. There were two journeymen and two apprentices. The foreman was working on site but at a distant location. Early one morning, the crew was told that the job was running behind schedule. As they rushed to put the pipes together, one end of a PVC pipe sprang up and struck one of the apprentices in the face, causing severe damage to the apprentice's lips and teeth. Immediately after the incident, the workers could not decide what to do. The injured worker climbed out of the trench and drove to the supervisor's trailer looking for the foreman. There were no signs posted inside the trailer stating what to do in an emergency. There wasn't a radio available to contact the foreman. The injured worker drove around the job site looking for the foreman. Once the foreman was located, he got the worker through medical treatment.

a. What went wrong in this situation?

[10 M]

b. How could this emergency have been prevented?

[10 M]

(CO3) [Application]