

**V.S.B ENGINEERING COLLEGE, KARUR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**Academic Year: 2017-18 (EVEN Semester)**

**Assignment Questions**  
**CE6401-CONSTRUCTION MATERIALS**

1. List any 10 different types of civil engineering applications/structures, and identify the important considerations for selecting the materials used in them.
2. Visit a large building and note down the different materials used in its construction. Think and reason out why these particular materials have been used. Find out about alternative materials that could have been used instead of each of these.
3. Why use red clay bricks when better alternatives are easily available?
4. List any 10 different construction materials used commonly in your neighborhood and find how much is the cost for 1 metric ton of each of them.
5. Which is better – a fly ash brick or a normal red brick?
6. How does the quality of construction materials affect the building?
7. What is translucent concrete? What are its applications?
8. What are the advantages and disadvantages of ferrocement?
9. What are the various applications of different types of cements used in the construction industry?
10. Explain lumber and its uses.
11. What are some modern construction materials that would replace the existing traditional construction materials being as effective, cheap and in availability?
12. What is geosynthetics and explain its application in construction industry.
13. What are the basic functions of geotextile in tunnel construction?
14. What are the materials which could be used by engineers in building construction so as to create the minimum impact on environment?
15. What is the advantage of RMC over normal mix concrete when all the materials available at the site.

**CE6402 STRENGTH OF MATERIAL  
V.S.B ENGINEERING COLLEGE, KARUR**

**DEPARTMENT OF CIVIL ENGINEERING**

**Academic Year: 2017-18 (EVEN Semester)**

**Assignment questions**

Class: II Year / IV Semester B.E. Civil Engineering "A" & "B" Section

Name of Subject: Strength of Materials

Name of Faculty member: Mr N.Arul

1. Derive the Strain energy due to impact loading.
2. Explain the Deflection of frames
3. Give the Introduction to column buckling.
4. Write the Application of williot's mohr's diagram
5. What is the difference between internally and externally indeterminate structures?
6. Explain the Analysis of statically indeterminate structure by matrix force method.
7. List out the statically kinematically indeterminate structure.
8. Enumerate the Analysis of space and plane frames.
9. Briefly explain the Eulers theory of short column buckling
10. What are the Limitation of eulers theory?
11. How do Analysis of cylinder by using finite element method.
12. Explain Reliability analysis for eccentrically loaded columns.
13. What is the Application of theories of failure?
14. Give details about Column analogy method.
15. What is the Application of shear centre?
16. Write the Winkler bach theory and its applications.
17. Comparson of stress between winklers bachs theory and finite element method.

**V.S.B. ENGINEERING COLLEGE, KARUR  
DEPARTMENT OF CIVIL ENGINEERING  
ASSIGNMENT**

**CE 6403 –APPLIED HYDRAULIC ENGINEERING**

**Year/Semester & Branch: II / IV B.E Civil Engineering ‘A’ & ‘B’ Sec  
Faculty Name: Ms. U. Nandhini**

1. Explain the term open channel flow and write down the types of flow.
2. What are the practical applications of venturimeter?
3. What are the potential advantages in using best hydraulic section?
4. Derive the condition for most economical triangular channel.
5. Significance of Froude Number in Gradually-Varied Flow Calculations.
6. What are the types of flow profile and explain with suitable sketches?
7. Write short notes on Specific energy and specific energy curve.
8. Explain the effect of cavitations in hydraulic machines.
9. What are the various types of surges? Explain their advantages.
10. Explain the different types of Submersible pumps with their advantages.
11. Explain the types and applications of draft tube.
12. Explain the components and working principal of Pelton wheel turbine.
13. Explain the indicator diagram and its applications.
14. Explain the Air vessels and its working principles.
15. Explain in detail about rotary positive displacement pumps.

\*\*\*\*\*

Prepared by

Approved by

**(U. Nandhini/AP Civil)**

**(R.Gowrishankar/ HoD Civil)**

**V.S.B. Engineering College, Karur**  
**Department of Civil Engineering**  
**ACADEMIC YEAR: 2017-2018 (EVEN Semester)**  
**CE6404 SURVEYING II**

**ASSIGNMENT QUESTIONS**

1. Explain any four applications of Triangulations.
2. Explain the procedure of site selection of Tower and signal.
3. Write short notes on recent technology in Theodolite.
4. What is reciprocal levelling and why is it employed? What errors will be eliminated?
5. Explain the steps to measure the quadrilateral angles.
6. Explain the applications of Total station and its uses.
7. Explain conventional methods and its applications.
8. Explain non- conventional methods and its applications.
9. Explain briefly the components of GPS?
10. Comparison between the old methods and Modern methods in surveying.
11. Explain the application of remote sensing.
12. Explain the concept of Geographic Information System.
13. Explain the current surveying technologies and methodology.
14. List out the types of GPS and its applications.
15. Explain the satellite image and its uses in surveying field.

**V.S.B. ENGINEERING COLLEGE, KARUR**  
**Department of Civil Engineering**  
**Academic Year: 2017 -2018 (EVEN Semester)**

**ASSIGNMENT**

**Name of the Course (Subject): Soil mechanics**

**Name of the Faculty member: Mr.K.Rajkumar**

**Class / Semester : II Year / IV Semester 'A' & 'B' Sec, B.E., Civil Engineering**

1. Classification of soil based on its origin and formation.
2. Investigate field testing of soil.
3. How to extract soil samples for various laboratory tests?
4. How to find the safe bearing capacity of soil in the laboratory?
5. How to find the safe bearing strength of soil in the field?
6. How to construct flow net for various water retaining structures?
7. How to classify foundation based on soil condition?
8. Illustrate importance of geo technical engineering in civil engineering field.
9. What is the principle behind the floating foundation?
10. Demonstrate soil improvement techniques.
11. Report some case studies about importance of geo technical engineering in civil field.
12. What are the factors which cause the compressibility of clays?
13. Enumerate slope stability protection measures.
14. Investigate soil pressure distribution in back of retaining wall.
15. How will you assess the overall stability of retaining walls?