

6. Write down the difference between determinate and indeterminate structures 6
7. Explain the following:
- (i) Strain energy method
  - (ii) Compression member
  - (iii) Uniformly distributed load
  - (iv) Under reinforced section 10
8. a) Explain different the types of dairy barns in brief.
- b) Write down the fundamental requirement of a poultry house. 46

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## B. Tech Odd Semester Examination, February, 2023

### Agricultural Engineering

(7th Semester)

Course No.: AECC-36

**(Building Materials and Structural Design)**

*Full Marks: 50*

*Pass Marks: 15*

*Time: 2 hours*

- Note:**
1. Attempt any five questions.
  2. Begin each answer in a new page.
  3. Answer parts of a question at a place.
  4. Assume reasonable data wherever required.
  5. The figures in the right margin indicate full marks for the question.
  6. All the mathematical symbols and abbreviations have their usual meanings.
1. a) With the help of a flowchart, outline the procedure for manufacture of cement. 6
  - b) Write a note on Sand and its type. 4
  2. a) State the quick test to check the presence of clay and organic matter in sand. 6
  - b) Enumerate the properties of a good brick. 4
  3. Draw a layout for a dairy farm for 200 cows / buffalo unit. 10
  4. a) Briefly describe the different types of lime.
  - b) Discuss the factors affecting strength of timber. 10
  5. Draw the neat labelled diagram of wood and define in detail. 10

**Turn Over**