## III B. Tech II Semester Supplementary Examinations, December -2023 ELEMENTS OF CIVIL ENGINEERING

(Com to CE,ME,AGE)

Time: 3 hours Max. Marks: 70 Answer any FIVE Questions ONE Question from Each unit All Questions Carry Equal Marks \*\*\*\* UNIT-I 1. What is the role of Civil Engineers in societal and economic needs on [7M] addressing? Present infrastructure impact audit on enhancing economy of the nation? b) [7M] Outline the fundamental principles of surveying? 2. [7M] Present the classification of surveys in reference to mapping and plan [7M] b) development? 3. What are the application and uses compass surveying [7M] Present insights, uses and differentiate between whole circle bearings and b) [7M] reduced bearings? (OR) 4. Present the different terminologies come across leveling and explain in [7M] reference to different leveling instruments? Present the different methods of leveling and explain each method and its [7M] adaptability in the field problems? 5. Name and characterize the different construction materials in civil Engineering [7M] fields? What are credible characteristics to be owned by aggregates in utilizing at [7M] buildings and infrastructures? (OR) Present the characterizing tests to be conducted in evaluating the concrete 6. a) [7M] quality? Present the salient features of glass and plastic from engineering and scientific b) [7M] point of views? **UNIT-IV** 7. Outline the principles to be followed in planning of buildings? [7M] a) What are the basic requirements to be followed in residential and industrial b) [7M] buildings? (OR) 8. Classify the buildings in reference to functionality, occupancy and structure? [7M] a) Outline the features of building byelaws? b) [7M] **UNIT-V** 9. Draw and relate the hydrographic cycle from fundamental theories? a) [7M] Present the insights to be sensitized in water shed development? b) [7M] (OR) 10. Frame the water requirements and its conservation procedures? a) [7M] Name the different hydraulic structures and present the functional features of [7M] each structure?

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