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## **CE-402-CBGS**

### **B.Tech., IV Semester**

Examination, December 2020

### **Choice Based Grading System (CBGS)**

### **Construction Technology**

*Time : Three Hours*

*Maximum Marks : 70*

**Note :** i) Attempt any five questions.

ii) All questions carry equal marks.

iii) In case of any doubt or dispute the English version question should be treated as final.

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1. a) What is foundation? Explain different types of Foundation with neat sketch. 7

b) What type of foundation would you adopt in the following cases? Give reasons. Also provide sketches of the type of foundation. 7

i) When there is a stiff crust below which the soil is soft, but the crust is non-uniform

ii) When a large load is to be transmitted to a hard stratum but has to be taken through a stiff clay,

iii) When the soil is a fill which is of low compressibility but non-uniform.

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[2]

2. a) Explain different type of form work used in concrete construction. 7

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b) Mention different types of failure of formwork and remedial measures to be taken. 7

3. a) What are the types of Stairs? Explain dog legged stairs and open well stairs with neat sketch in detail. 7

b) Explain : 7

i) Freyssinet system

ii) Magnel Blaton systems of prestressing with sketches.

[3]

4. a) Explain the single joist timber floor and double joist timber floors with neat sketch. 7
- b) Explain the Collar beam roof, Couple close roof and lean to roof with diagram. 7
5. a) Explain any three methods to retrofit of reinforced concrete column. 7
- b) What is base isolation technique? Explain it with a neat diagram. 7

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6. a) Explain briefly about the following masonry wall construction. 7
- i) Hollow concrete bricks
  - ii) Solid concrete blocks
  - iii) High-quality building blocks
- i)
- ii)
- iii)
- b) Explain, in detail, the general principles that should be observed during the construction of earthquake-resistant building. 7

[4]

7. a) Briefly explain about “Light Weight” concrete and “Shotcrete”. 7

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b) with a neat sketch. 7

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8. a) Write down defects in plastering and also remedies for minimizing defects of plastering work. 7

b) What is DPC? Explain any two damp proofing method. 7

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