

6TH SEM. /CIVIL / 2023(S)

TH-4 Concrete Technology

Full Marks: 80

Time- 3 Hrs

Answer any five Questions including Q No.1& 2
Figures in the right hand margin indicates marks

1. Answer **All** questions 2 x 10
 - a. What do you mean by nominal mix.
 - b. What is hydration of cement ?
 - c. Define fineness modulus ?
 - d. What do you mean by efflorescence ?
 - e. What are the types of deterioration ?
 - f. What is the effect of sulphate if present in concrete?
 - g. What do you mean by accelerator?
 - h. What is gunitting ?
 - i. Define creep and shrinkage of concrete?
 - j. What is workability of concrete?

2. Answer **Any Six** Questions 6 x 5
 - a. Explain about types cement?
 - b. Write the short notes on shotcrete concrete and ready mix concrete.
 - c. Explain about different types of admixtures?
 - d. Write the difference between nominal and design mix concrete..
 - e. What are the types of formwork ?
 - f. What are various factors causing variation in quality of concrete?
 - g. How cracks are repaired in concrete?

3. Write down different tests of cement ? 10
4. Write the requirement of mix design and give a brief about I .S .code method of mix design. 10
5. What are the methods to determine workability of concrete? 10
6. Explain about deterioration of concrete and its prevention? 10
7. What is inspection and testing and durability requirement as per I S 456 ? 10