

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

School of Engineering**B.TECH Civil Engineering
Mid Term Examination - May 2024****Duration : 90 Minutes
Max Marks : 50****Sem VI - G1UA603T - Advanced Concrete Design**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Draw any 4 yield line patterns with various support conditions K2 (2)
- 2) Explain briefly the necessity of footing in a structure K1 (3)
- 3) Explain the applicability of combined footing . K2 (4)
- 4) Differentiate between yield line and strip line K2 (6)
- 5) The yield line analysis is possible only for slabs and not possible for beams state the reasons. Justify K3 (6)
- 6) Explain the various parameters which must be taken care while designing a combined footing . K3 (9)
- 7) Explain the design steps of isolated footing and combined footing K4 (8)
- 8) A square interior panel of an intermediate floor is of effective dimension 5 m x 5 m. The live load on the floor is 2.5 kN/m². Finishes is 1 kN/m². Analyse the slab using yield line approach and design the slab. Use M20 concrete and Fe 415 steel. K4 (12)

OR

- Explain in detail design steps of RCC continuous beam . K4 (12)