

QP Code:1001A23B101

Reg No : Name :

TKM COLLEGE OF ENGINEERING, KOLLAM

(Government Aided and Autonomous)

First Semester B. Arch. Degree Examination, February 2023
22ARB101 - Building Materials and Construction Techniques –I
(2022 Scheme)

Duration:3 Hours

Maximum Marks:50

PART - A

(Answer **all** questions. Each question carries 3 marks)

Marks

(To be answered in a maximum of 50 words with supporting sketches)

- | | |
|-------------------------------------------------------------------------------------------|---|
| 1. Discuss the geological classification of stones. | 3 |
| 2. Explain bonding in brick masonry | 3 |
| 3. Explain the manufacturing of stabilized mud blocks. | 3 |
| 4. Schematically represent tee junction, cross junction and squint junction in brick work | 3 |
| 5. Write short notes on light weight mortar. | 3 |

PART - B

(Answer **one** question from each module. Each question carries 4 marks.)

(To be answered in a maximum of 100 words with supporting sketches)

Module 1

- | | |
|------------------------------------------------------------------------|---|
| 6. Discuss the qualities of a good building stone. | 4 |
| 7. Explain Granite as a building material with its properties and uses | 4 |

Module 2

8. Explain the process of preparation of clay or brick earth. 4
9. Compare the characteristics of English bond and flemish bond. 4

Module 3

10. Briefly explain the manufacturing and properties of 'sand lime bricks'. 4
11. Explain 'mud' as a sustainable building material. 4

Module 4

12. Differentiate Semi circular Arch and Segmental Arch. 4
13. List any four advantages of brick masonry over stone masonry. 4

Module 5

14. List out the ingredients of mortar and explain the function of each ingredient. 4
15. Describe the usual tests for mortar. 4

PART - C

(Answer **all** subdivisions of the question. The question carries 15 marks.)

16. Prepare plans, elevation and section of one brick thick double flemish bond. 15