

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2024)**

**CLASS: B.ARCH
BRANCH: ARCHITECTURE & PLANNING**

**SEMESTER : II
SESSION : SP/2024**

SUBJECT: AR151 ADVANCED BUILDING MATERIALS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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|--------|--|-----|----|----|
| Q.1(a) | What are the various non-ferrous metals utilized in the construction industry, and provide a brief description of each? | [2] | 1 | 2 |
| Q.1(b) | What is the difference between Brass and bronze? Explain the properties of each. | [3] | 3 | 2 |
| Q.2(a) | What is an alloy? How is it formed? | [2] | 2 | 2 |
| Q.2(b) | Write about Aluminium as a building material with suitable examples? | [3] | 1 | |
| Q.3(a) | What is meant by the term tile? | [2] | 1 | 3 |
| Q.3(b) | Explain the following term 1. Earthenware 2. Mangalore tiles | [3] | 1 | 1 |
| Q.4(a) | What is meant by the term refractories? | [2] | 1 | 2 |
| Q.4(b) | Give reasons: a. a mixture of ground pottery ware is sometimes added to the clay of tiles. b. the tiles are dried under a shade. | [3] | 2 | 2 |
| Q.5(a) | What criteria should be considered when selecting high-quality flooring tiles? | [2] | 3 | 5 |
| Q.5(b) | What are the step-by-step procedures involved in the elaborate process of making IPS (Indian Patent Stone) flooring? | [3] | 3 | 6 |

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