

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: ARCHITECTURE
BRANCH: ARCHITECTURE & PLANNING**

**SEMESTER : II
SESSION : SP/2025**

SUBJECT: AR151 ADVANCED BUILDING MATERIALS

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
-

		CO	BL
Q.1(a)	List a few uses of ferrous metals in buildings. What are the desired protective measures for using it ?	[5] 1	3
Q.1(b)	Appraise the various use of copper and zinc in building industry, highlighting their advantages & disadvantages.	[5] 1	5
Q.2(a)	Name 4(four) contemporary largely used building blocks. What are sustainable and functional characteristics of those?	[5] 5	1
Q.2(b)	Define Embodied Energy & energy intensiveness of buildings materials.	[5] 4	2
Q.3	Write short notes on (any three) : a) Use of bituminous material in construction industry b) Engineered wood WPC c) Sound Insulation material d) Techniques for applying paints	[10]	3,4,5 3
Q.4(a)	Compare between Cement board and Gypsum Board on the basis of composition and application.	[5] 4	4
Q.4(b)	Define infiltration. What are the uses of Sealants and Gaskets?	[5] 3	1
Q.5(a)	Describe various uses of plastic in a building. What are the desirable properties of plastics to be used in building industry?	[5] 5	2
Q.5(b)	Differentiate amongst Paint, Varnish & Distemper. What are the constituents of paint?	[5] 6	4 3

:25/04/2025:::E