

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

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

**SEMESTER : II
SESSION : SP/2023**

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.
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		CO	BL
Q.1(a)	Mention the uses of non-ferrous metals which are commonly used in engineering structures.	[5] 03	05
Q.1(b)	Discuss the various methods which are usually adopted to prevent the corrosion of ferrous metals.	[5] 02	04
Q.2(a)	What is terra-cotta? How is it manufactured?	[5] 01	03
Q.2(b)	What is a glaze? Mention the purposes of glazing and discuss its varieties.	[5] 01	03
Q.3(a)	What is Fly ash? what uses can fly ash be put in construction related Activities?	[5] 03	01
Q.3(b)	Write short notes on the following: a. ready-mix concrete b. artificial aggregates	[5] 02	04
Q.4(a)	Mention the objects of painting and point out the characteristics of an ideal paint.	[5] 02	03
Q.4(b)	What are the ingredients of a varnish? Describe briefly each of them.	[5] 02	02
Q.5(a)	Write a critical note on plastic as an engineering material.	[5] 03	04
Q.5(b)	Give reasons for the following: a. The glass fiber reinforcement is sometimes added in the structure of plastics. b. The plastics are used to convey chemicals.	[5] 02	04

:::::17/07/2023:::::