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

CLASS: B.ARCH. **SEMESTER: II BRANCH: ARCHITECTURE** SESSION: SP/19 SUBJECT: AR151 ADVANCED BUILDING MATERIALS TIME: 3.00 Hrs. **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. ______ Q.1(a) What are different forms of aluminium? Describe each of them with suitable example. [5] Q.1(b) Enumerates the various copper alloys in details? [5] Q.2(a) Describe the varieties of terra-cotta. How terra-cotta is manufactured? [5] Q.2(b) What is a glaze? Mention the purposes of glazing and discuss its varieties. [5] Q.3(a) What are admixtures? Describe the effect of following admixture on cement concrete. [5] a. retarders b. water proofers. Q.3(b) How are pre-cast concrete products prepared? Mention the advantages and disadvantages of pre-cast [5] concrete products. Mentions the object of varnishing and point out the characteristics of an ideal varnish. [5] Q.4(a)What are the ingredients of an oil borne paint? Describe briefly each of them. [5]

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Q.5(a) Mention the application of FRP in building industry.

Q.5(b) Mention the properties and uses of various types of glass.