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Code No. : 14148 AS

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD*Accredited by NAAC with A++ Grade***B.E. (Civil Engg.) IV-Semester Advanced Supplementary Examinations, September-2022.****Building Materials and Construction**

Time: 3 hours

Max. Marks: 60

*Note: Answer all questions from Part-A and any FIVE from Part-B**Part-A (10 × 2 = 20 Marks)*

Q. No.	Stem of the question	M	L	CO	PO
1.	List any to facilities that have to be provided for physically handicapped in buildings.	2	1	1	1,6
2.	What are the factors considered for site selection of buildings?	2	1	1	1,6
3.	What are the qualities of good building stones?	2	1	2	1,7
4.	What are the various uses of plywoods and laminates?	2	1	2	1
5.	Classify different types of mortar?	2	1	3	1
6.	What is meant by M20 concrete?	2	1	3	1
7.	What are the ingredients of vanish?	2	1	4	1
8.	Where can flyash be used in building construction?	2	2	4	1,6,7
9.	Define any two terms related to stair cases.	2	1	5	1
10.	Briefly explain why bonds are required in brick masonry and what criteria is adopted for obtaining a good bond.	2	2	5	1
<i>Part-B (5 × 8 = 40 Marks)</i>					
11. a)	Explain the different principles of planning and how are they interrelated.	4	3	1	1,6,7
b)	Explain orientation and different factors which affect orientation of a building	4	3	1	1,6
12. a)	List out the Engineering properties of the bricks. what are the characteristics of various types of bricks?	4	3	2	1
b)	Distinguish the various timbers under various methods of seasoning?	4	2	2	1
13. a)	Identify the factors that influence the strength of the concrete? Briefly discuss the water cement ratio and workability on strength of concrete.	4	3	3	1
b)	Explain any one method of manufacturing of cement with neat sketch.	4	2	3	1

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14. a)	Enlist Various types of paints used in building construction.	4	2	4	1
b)	Explain the various materials used for damp proofing.	4	2	4	1,6
15. a)	Explain, with the help of diagrams, various systems of plumbing used for house drainage.	4	3	5	1,6
b)	Briefly outline various types of green building certification systems and their criteria used for evaluating the green buildings.	4	3	5	1,6,7
16. a)	List out four important bye-laws and regulations which should be considered for planning of buildings.	4	3	1	1,6
b)	What are the types of reinforcing steel? Present the specifications of reinforcing steel used in construction.	4	2	2	1
17.	Answer any <i>two</i> of the following:				
a)	Characteristics of aggregates suitable for construction.	4	2	3	1
b)	Light weight building blocks advantages and composition.	4	3	4	1,6,7
c)	Types of scaffolding.	4	2	5	1

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	40%
iii)	Blooms Taxonomy Level – 3 & 4	40%
