



CBCS SCHEME

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BETCK205A/BETCKA205

Second Semester B.E./B.Tech Degree Examination, June/July 2024 Smart Materials and System

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Explain the different types of honey comb structures.	10	L2	CO1
	b.	Explain the different applications of nano –materials.	10	L2	CO1
OR					
Q.2	a.	Explain the importance of any two sustainable by products used in construction industry.	10	L2	CO1
	b.	List and explain construction chemicals.	10	L2	CO1
Module – 2					
Q.3	a.	Explain the different components of prefabricated building.	10	L2	CO1
	b.	Explain the advantages and disadvantages of prefabricated technologies.	10	L2	CO2
OR					
Q.4	a.	Explain transportation and installation facility required for prefabricated components.	10	L2	CO3
	b.	Explain the different methods of pre fabricated construction.	10	L3	CO3
Module – 3					
Q.5	a.	Explain the steps involved in electricity generation from piezoelectric element.	10	L3	CO3
	b.	Explain any two types of piezo – electric materials.	10	L3	CO3
OR					
Q.6	a.	List and explain the different applications of piezoelectricity materials.	10	L3	CO3
	b.	Explain the different types of sensors used in piezoelectricity generation.	10	L3	CO3
Module – 4					
Q.7	a.	Explain the applications of BIM in infrastructure projects.	10	L3	CO4
	b.	How BIM changes traditional job roles in the structural and civil engineering industry.	10	L3	CO4
OR					
Q.8	a.	Explain the different function of IBMS.	10	L3	CO4
	b.	Explain the applications of IBMS in infrastructure projects.	10	L3	CO4
Module – 5					
Q.9	a.	Explain the major applications of 3D printing.	10	L3	CO5
	b.	Explain the different types of 3D printing.	10	L3	CO5
OR					
Q.10	a.	Explain different materials used in 3D printers.	10	L3	CO5
	b.	Explain the working principle of 3D modellings.	10	L3	CO5
