			Reg. No.									
		Question Paper Code	1255	1	 ]			<u> </u>				
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	B.E. / B.Tech DEGREE EXAMINATIONS, APRIL / MAY 2024											
	Eighth Semester											
		Civil Engine	Reg. No.Paper Code12554EE EXAMINATIONS, APRIL / MAY 2024Eighth SemesterCivil EngineeringLIFE CYCLE ASSESMENTRegulations - 2020Marks: $IOU$ - LIFE CYCLE ASSESMENTRegulations - 2020Marks: $IUU$ - A (10 × 2 = 20 Marks)swer ALL Questions2KIcol2ecycling?2KIcol2ecycling?22KIcol2ecded?23KIcol2watts of brick manufacturing.2rgy.23KIcol2watts of brick manufacturing.2rgy.24Colming activities in the buildings?25KIcocess and its phases.2struction materials and its carbon emission2ColColOR13mportance of Inventory analysis in LCA.13K2ColColColOR13weetnory analysis Check list for a cement13K3Co2nable indicators and explain in detail.13K2Co3Co3Co3Co4Co3Co5CO4Co6CO5Co7CO6Co7Co7 </td									
		20CEEL806 - LIFE CYC	CLE ASSES	SMENT	Γ							
_		Regulations	- 2020				-					
Duration: 3 Hours Max. Ma								arks	: 10	0		
		$PART - A (10 \times 2 = A + 1) = A + 1 + A + 1 = A + 1 + A + 1 = A + 1 + A + 1 = A + 1 + A + 1 = A + 1 + A + 1 = A + 1 + A + 1 + A + 1 = A + 1 + A + A$	20 Marks)					1	Marks	K –	, со	,
1	Answer ALL Questions								2	KI	CO.	1
1. 2	Whie	the state to state includes recycling?							2	K1	CO.	1
2. 3	What	t is ISO 14040? Why it is needed?							2	K1	CO.	2
<i>3</i> . 4	Diffe	rentiate Impact categories and Impact In	dicators						2	K2	CO.	2
5	Infer	the three nillars of sustainability							2	K2	CO.	3
<i>5</i> .	List down the environmental impacts of brick manufacturing								2	K1	CO.	3
0. 7	Define total initial embodied energy								2	K1	CO	4
,. 8	What are the major energy consuming activities in the buildings?								2	K1	CO	4
9	A Name the onsite construction process and its phases								2	Kl	CO	6
10	List	out the any three major construction ma	terials and i	ts carb	on	em	nissi	on	2	K1	CO	6
10.	range	e.			011	•11	1001	on				
		DADE D (7. 12										
		$PART - B(5 \times 13 = Answer ALL O$	65 Marks)									
11.	a)	Illustrate the Goal and scope defining	in LCA and	how i	t af	ffeo	cts t	the	13	K2	CO	1
		LUA Process.										
	b)	Discuss the key steps and importance of	Inventory a	nalysis	in	LC	CA.		13	K2	CO.	1
12.	a)	Identify the list of LCA software to application	ols availabl	e and	its	d	etail	led	13	K3	CO.	2
		OR										
	b)	Construct the life cycle inventory and manufacturing Industry.	lysis Check	t list fo	or a	a c	eme	ent	13	К3	CO.	2
13.	a)	Classify the types of sustainable indicate <b>OR</b>	ors and expl	ain in c	leta	il.			13	K2	CO.	3
	b)	Outline the parameters affecting the rescycle.	sources use	in the 1	buil	ldi	ng l	ife	13	K2	CO.	3
K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create 1							12554					

14. a) Explain the components of embodied energy of a building in detail <sup>13</sup> K<sup>2</sup> CO<sup>4</sup> with neat sketch.

## OR

- b) Compare the embodied energy of conventional and alternative <sup>13</sup> K<sup>2</sup> CO<sup>4</sup> materials in building construction.
- 15. a) Illustrate the various methods followed in estimating carbon footprint. 13 K2 CO6

## OR

b) Discuss the various Green Building rating system followed in India <sup>13</sup> K2 CO6 and explain in detail.

## PART - C $(1 \times 15 = 15 \text{ Marks})$

16. a) Identify the indirect embodied energy use in building and its <sup>15</sup> K3 CO5 components.

## OR

b) Choose the various building energy conservation alternatives in LCA <sup>15</sup> K3 CO5 perceptive.