

Reg.No.:

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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 10003

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – JAN. / FEB. 2025

Second Semester

Biomedical Engineering

U23GE203 – BASIC CIVIL AND MECHANICAL ENGINEERING

(Regulation 2023)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	What is meant by bulking of sand?	2	K1	CO1
2.	Define Metamorphic rocks.	2	K2	CO1
3.	What are the requirements of good plaster?	2	K1	CO2
4.	List the various types of flooring.	2	K1	CO2
5.	Difference between economizer & air pre-heater.	2	K2	CO3
6.	Mention the advantages of solar power plant.	2	K1	CO3
7.	Define I.C Engine and E.C Engine.	2	K2	CO4
8.	What is the function of fuel injector?	2	K1	CO4
9.	Define humidity.	2	K2	CO5
10.	Mention the desirable properties of good refrigerant.	2	K1	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Explain the classification, properties and advantages of concrete.	13	K3	CO1
	(OR)			
b)	Describe in detail about the different classification of rocks.	13	K2	CO1
12. a)	With neat sketch, explain the different types of rubble masonry.	13	K2	CO2
	(OR)			
b)	Explain the various types of plastering and write down the various defects in plastering.	13	K3	CO2
13. a)	Explain the working principle of Hydro-electric power plant with a neat layout diagram. Also mention the advantages and limitations of hydro-electric power plant.	13	K2	CO3
	(OR)			
b)	Explain with a neat sketch the working principle of Cochran boiler and mention its advantages.	13	K2	CO3
14. a)	Describe the working of four stroke diesel(CI) engine with neat sketch.	13	K2	CO4
	(OR)			
b)	Explain briefly about two stroke petrol(SI) engine with neat sketch.	13	K2	CO4
15. a)	Explain the working principle of vapour absorption refrigeration system with a neat sketch.	13	K3	CO5
	(OR)			
b)	With neat sketch, explain the working of split air conditioning system.	13	K2	CO5

PART – C

(1 x 15 = 15Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	What are the factors to be considered while selecting a site for building?	15	K4	CO1
	(OR)			
b)	How will you classify the internal combustion engines? State atleast three types of classifications.	15	K2	CO4