K.L.E. Society's

Raja Lakhamagouda Science Institute (Autonomous) Belagavi

B.Sc. IV Semester

I- Internal Test –JUNE 2022

Subject: Chemistry (SEC)

Time: 1 hr Max. Marks: 30

Part A. Answer any FIVE of the followings [5×2=10]

1) What is Calorific value? Give its unit. **(CO1, L1)**
2) Write the Classification of Fuel. **(CO1, L2)**
3) What is the composition of Crude Petroleum? **(CO3, L1)**
4) Which standards are used for calculation of Octane number? **(CO3, L1)**
5) Define Fractional distillation. **(CO3, L1)**
6) Define Crude oil. **(CO3, L1)**
7) What are types of petrochemical? **(CO3, L1)**

Part B. Answer any TWO of the followings [2×5=10]

8) Explain Cracking with its types. **(CO3, L4)**
9) Explain Refining and different types of Petroleum products with diagram. **(CO3, L4)**
10) Explain the determination of Calorific Value of a given Solid or Liquid fuel using Bomb calorimeter with labelled diagram. **(CO1, L4)**

Part C. Answer any ONE of the followings [1×10=10]

11) Explain

i) Carbide theory

ii) Desalting. **(CO3, L4)** **(5+5)**

12) i) A 0.6 g of coal sample (Carbon 90%, H_2 3% and ash 4%) was subjected to combustion in a bomb calorimeter. Mass of water taken in the calorimeter was 2000g and the water taken equivalent of calorimeter was 400g. The rise in temperature was 3^0C. Calculate the gross and net calorific value of the sample. Given, latent heat of steam is 2454 kJ/kg. **(CO1, L3)**

ii) Explain the determination of Calorific Value of a given gas fuel using Jukers calorimeter with labelled diagram. **(CO1, L3)**

(5+5)

Staff in-charge **HoD**

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B.Sc. IV Semester

II- Internal Test –JULY 2022

Subject: Chemistry (SEC)

Time: 1 hr

Max. Marks: 30

Part A. Answer any FIVE of the followings **[5×2=10**

1) What is synthetic Petroleum? **(CO4, L2)**
2) Which Hydrocarbons are used for calculation of Cetane number? **(CO4, L1)**
3) Define Lubricants. **(CO4, L1)**
4) What is Coal? Write its composition. **(CO3, L1, L2)**
5) What is Carbonization of Coal? **(CO3, L1)**
6) Define Coal Gasification. **(CO3, L1)**
7) What is Solvent Refining? **(CO3, L1)**

Part B. Answer any TWO of the followings **[2×5=10]**

8) Explain properties of lubricants. **(CO4, L3)**
9) Explain Knocking of IC Engine. **(CO4, L3)**
10) Write the composition and uses of Coal gas, Producer gas and Water gas. **(CO3, L2)**

Part C. Answer any ONE of the followings **[1×10=10]**

11) Explain
    a) Berzius process. **(CO4, L3)**
    b) Fischer Tropsch process. **(CO4, L3)** **(5+5)**

12) a) What is Fractionation of Coal tar? Write the uses of coal tar bases of chemicals. **(CO3, L1, L3)**
    b) Write the requisites of a good metallurgical coke. **(CO3, L3)** **(5+5)**

STAFF INCHARGE **HOD**

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K.L.E. SOCIETY'S
RAJA LAKHAMAGOUDA SCIENCE INSTITUTE,
COLLEGE ROAD, BELAGAVI - 590001.
STATE: KARNATAKA, INDIA
Accredited with 'A' Grade by NAAC (3rd Cycle)
'AUTONOMOUS'

B.Sc. 20…-20...

INTERNAL ASSESSMENT RECORDS

Name:_____

College Roll Number:_____ **Exam Register Number:**_____

Semester: _____ **Subject:** _____

CIA	Date	Max. marks	Marks Obtained	Reduced to 15 marks
CIA1		30		
CIA2		30		

CIA	Date	Max. marks	Marks Obtained	Reduced to 10 marks
CIA3 (ABA)				

CAI marks (30) (CIA1+CIA2)	ABA Marks (10) (CIA3)	Total marks (40) (CIA1+CIA2+CIA3)	Signature of the Faculty

Signature of the Student

Signature of the Invigilator

R. L. Science Institute 590 001 Belagavi

Signature of the HOD

PRINCIPAL
R. L. Science Institute
BELAGAVI-590001

CO MAPPING

IA	Q. NO.	CO1	CO2	CO3	CO4	CO5
I	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
II	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
Obtained CO						
Allocated CO						