



National Institute of Technology Srinagar (J&K)

ASSIGNMENT-III (SPRING-2020)

Fuels and Lubricants

Course: B. Tech.

Subject: **Engineering Chemistry**

Semester: 2nd

Max. Marks: 20

Submission Date: up to 6th June, 2020

Branches: CHE, MEC, MME, CIV.

Subject Code: (CYL-100)

Session: Spring-2020

Issue Date: 29th May, 2020

CO 3: To gain knowledge about fuels, types of lubricants and their uses.

Note: Attempt all the questions. Each question carries equal marks.

Q. No.	Questions	Marks	CO
Q. 1.	How bomb-calorimeter is used to determine the calorific value of solids and liquids?	5	3
Q. 2.	Calculate the gross and net calorific value of coal having the following compositions: C= 45%, H = 7%, S = 1%, N = 3%, ash = 4%, latent heat of steam = 587kcal/kg.	5	3
Q. 3.	a). Fatty oils are not used as lubricants, explain why. b). Describe various ingredients of blended oils.	5	3
Q. 4.	Explain hydrodynamic and extreme pressure mechanisms of lubrication	5	3