

Roll No.25.....

Exam Code : D-24

Subject Code—62429

B.Sc. EXAMINATION

(Main/Re-appear)

(Batch 2020 Onwards)

(Fifth Semester)

SKILLS ENHANCEMENT COURSE-I

CCS-505 (ii) Paper-I

Chemistry

(Fuel Chemistry)

Time : 3 Hours

Maximum Marks : 50

Note : Attempt *Three* questions in all, selecting *one* question from each Section. Q. No. 1 is compulsory.

Compulsory Question

1. (a) What are units of calorific value ?

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P.T.O.

- (b) What are demerits of solid fuels ?
- (c) Define metallurgical coke.
- (d) Define octane number.
- (e) How is coal prepared ?
- (f) What is bio-diesel ? Give its uses.
- (g) What do you mean by refining of petroleum ?
- (h) What is syn gas ?
- (i) How lubricants are classified ?
- (j) What are cloud point and pour point ?

$2 \times 10 = 20$

Section A

- 2. (a) Define coal tar and give its composition. 4
- (b) Distinguish between gross calorific value and net calorific value. 5
- (c) Explain gasification of coal. 6
- 3. (a) How is metallurgical coke prepared ? 6
- Give its uses.

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- (b) Compare merits and demerits of Solid, Liquid and Gaseous fuels. 9

Section B

4. (a) Write detailed notes on LPG, CNG and LNG. 9

- (b) Define biogas. Give its composition and uses. 6

5. (a) What are synthetic lubricants and greases ? Also describe the properties of lubricants. 9

- (b) Write notes on animal fats, oils and mineral oils. 6