

Subject Code—58457

B.Sc. EXAMINATION

(Main/Reappear) (Batch 2018 Onwards)

(Fifth Semester)

CHEMISTRY

CCS-505 (ii) Paper-I

Skills Enhancement Course-I

Fuel Chemistry

Time : 3 Hours

Maximum Marks : 50

Note : Attempt *Three* questions in all, selecting at least *one* question from each Unit in addition to compulsory Q. No. 1.

1. (a) What is meant by gross calorific value of fuels ? 2
- (b) Write down *four* important characteristics of good fuel. 2

- (c) Write down *two* demerits of liquid fuels. 2
- (d) What is refining of petroleum ? 2
- (e) What is Coal Gas ? Write down its *two* important uses. 2
- (f) What is reforming process in petroleum industry ? 2
- (g) Write *two* important advantages of LPG. 2
- (h) Write down *two* important functions of Lubricants. 2
- (i) Explain the term Cloud Point. 2
- (j) What is Octane Number ? 2

Unit I

- 2. (a) Explain the carbonization of coal in detail. 7.5
- (b) Write down the composition and uses of producer gas and water gas. 7.5
- 3. (a) What are renewable and non-renewable energy resources ? 7.5

- (b) Explain hydrogasification and catalytic gasification of coal. 7.5

Unit II

4. (a) What is meant by thermal cracking and catalytic cracking ? 7.5
- (b) Explain the process of fractional distillation of petroleum. 7.5
5. (a) What are Synthetic Lubricants ? Explain in detail. 7.5
- (b) What is viscosity index of lubricants ? Give *one* method for its determination. 7.5