

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

CM-4004-CBGS

B.E. IV Semester

Examination, June 2020

Choice Based Grading System (CBGS)

Fuel Technology

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Draw neat diagram wherever required.

1. a) Write short notes on:
 - i) Origin of coal
 - ii) Storage of coal
- b) What is pulverization of coal? State its advantages.
2. a) List various processes and their principle of operation for washing of coal.
- b) Explain the classification and composition of Indian coal.
3. a) Explain catalytic cracking process in detail. State advantage of catalytic cracking.
- b) What is reforming? Explain any reforming process in detail.
4. a) Define API viscosity and viscosity index flash point and fire point.

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[2]

- b) List various petroleum product and their utilization.
- 5. a) Write advantages and disadvantages of LPG and CNG over S.I. Engine fuel.
b) Discuss Lurgi gas process for coal gas manufacture.
- 6. a) List various type of fuel cell. Discuss principle and working of alkaline fuel cell.
b) Explain the working of proton exchange membrane fuel cell.
- 7. a) Write short note on types of solar cell and their fabrication.
b) Write note on wind energy and tidal energy as renewable energy source.
- 8. Write note on any four:
 - a) Frazer coal classification
 - b) Beehive coke oven
 - c) Indian crude
 - d) Lurgi-spaul gas retort
 - e) Proximate analysis of coal

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