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# APPLIED CHEMISTRY-II 2<sup>nd</sup> Exam/Common/4553/Feb'2021 (For 2018 Batch onwards)

Duration: 1.15 Hrs. M.Marks:25

## **SECTION-A**

### Q1. Attempt any five questions.

5x3=15

- i. State Pilling-Bedworth rule.
- ii. What is metal cladding?
- iii. How corrosion can be prevented by material selection and design?
- iv. What are the characteristics of a good fuel?
- v. Compare solid, liquid and gaseous fuels in terms of calorific value, ash content and combustion control.
- vi. Give the importance of proximate analysis of coal.
- vii. What are the functions of a lubricant?
- viii. Write a note on Total acid number (TAN) of a lubricant.
- ix. Define glass. Give its composition.
- x. What are composite materials? Give one example.

#### **SECTION-B**

## Attempt any one question.

1x10=10

- **Q2.** Discuss in detail any four methods of purification/ refining of metals.
- **Q3.** Define Refractories. What are the characteristics of a good refractory? Differentiate between acid and basic Refractories with suitable examples.
- **Q4.** Define Corrosion. Give a detailed account of electrochemical theory of corrosion.
- **Q5.** Write a detailed note on CNG, LPG and producer gas.