MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, **BHOPAL**

MID-TERM EXAMINATION

SECTIONS: F, G, H, I & J

SEMESTER -1st (ODD 24-25)

SUBJECT- ENGINEERING CHEMISTRY

SUBJECT CODE: CHY 24107

MM: 20

Time: 60 Minutes

INSTRUCTIONS: Attempted all the questions.

| Course Outcomes (COs) | |
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| CO2: To understand fundamentals of solid, liquid and paseous fuels | |
| CO3: To learn various mechanism and properties of liquid, semi-solid and solid lubricants | |
| CO5: To enhance knowledge on the preparation and properties of polymers and cement | |

| Ques | UNITS | Marks | COs |
|------|---|-------|-----|
| 1. | Define and Explain the preparation, properties and uses of Addition and Condensation polymers (2Examples). | 2 | CO5 |
| 2. | What is Vulcanization? How it brings about changes in properties of rubber? Give applications of vulcanization | 2 | CO5 |
| 3. | Write the setting and hardening process of the Cement in detail. | 2 | CO5 |
| 4. | Write short note on RCC and white cement. | 2 | CO5 |
| 5. | Explain Extreme pressure lubrication. | 3 | CO3 |
| 6. | Write a note on semi solid and solid lubricants. Write their types, properties & uses. | 3 | CO3 |
| 7. | Write classification of fuel. What are the various criteria for the selection of fuel? Elaborate any one criterion. | 3 | CO2 |
| 8. | Explain the Octane and cetane number. | 3 | CO2 |