

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018****Subject Code: 2163901****Date: 28/04/2018****Subject Name: Coating technology****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Write the importance of metal coating and polymer. **03**
(b) Give the merits and demerits of spray and dip coating. **04**
(c) Write short note on Surface engineering. **07**

- Q.2** (a) How wear occur? **03**
(b) How can we measure the thickness of coating? Explain any one technique in short. **04**
(c) Explain the term Rheology and write it's important in coating technology. **07**

OR

- (c) Explain the SEM. **07**
Q.3 (a) Write advantage of antifriction coating. **03**
(b) Give the difference between alloying and cladding. **04**
(c) Explain the wetting with surface energy equation and neat diagram. **07**

OR

- Q.3** (a) Give the advantage and disadvantage of electroplating. **03**
(b) Write the faraday's law of Electrolysis. **04**
(c) Write short note on electroplating With neat diagram. **07**
Q.4 (a) Write the advantage of PTFE coating. **03**
(b) Define metal coating and non-metallic coating. **04**
(c) Write the full form of EPD and explain with neat diagram. **07**

OR

- Q.4** (a) Write the importance of Ion-implantation in electronic industries. **03**
(b) Explain any one technique for metallic coating with example. **04**
(c) Write the two suitable SOL-GEL coating techniques. **07**
Q.5 (a) Give the difference between Electroplating and EPD. **03**
(b) Write short note on Newtonian Fluid and Non Newtonian Fluid. **04**
(c) Explain laser Cladding with neat diagram. **07**

OR

- Q.5** (a) Give the advantage and disadvantage of Ion beam implantation. **03**
(b) Why Electroplating is important in metal coating. (Write four point in brief). **04**
(c) Explain the electron beam hardening. **07**
