

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-VII • EXAMINATION – WINTER • 2014

Subject Code: 372303

Date: 26-11-2014

Subject Name: High Performance and Green Plastic

Time: 10:30 am - 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.
4. English version is considered to be Authentic.

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|-------------|--|-----------|
| Q.1 | (a) Give the applications of biomedical polymers. | 07 |
| | (b) List applications of Poly (amide-imide). | 07 |
| Q.2 | (a) Explain properties of high temperature polymers in brief. | 07 |
| | (b) Explain properties of chlorinated polyether. | 07 |
| | OR | |
| | (b) Give the applications of thermoplastic elastomers (TPE). | 07 |
| Q.3 | (a) Explain the importance of polymer alloys & blends. | 07 |
| | (b) Write the applications of PPO-NYLON. | 07 |
| | OR | |
| Q.3 | (a) List the preparation methods of alloys & blends and explain dispersion mixing. | 07 |
| | (b) Explain properties of ABS-PBT | 07 |
| Q.4 | (a) Write the applications of PC-ABS. | 07 |
| | (b) Explain factors affecting biodegradable polymers. | 07 |
| | OR | |
| Q. 4 | (a) List the additives used to make plastic biodegradable and explain in brief. | 07 |
| | (b) Explain properties of polyhydroxybutyrate (PHB). | 07 |
| Q.5 | (a) Give the applications of polylacticacid (PLA). | 07 |
| | (b) Write advantages and disadvantages of biodegradable polymers. | 07 |
| | OR | |
| Q.5 | (a) List the biodegradable polymers synthesised from petroleum products & give applications of polycaprolactone (PCL). | 07 |
| | (b) Explain injection moulding method of biodegradable polymers. | 07 |
