

GUJARAT TECHNOLOGICAL UNIVERSITY**M. Pharm. - SEMESTER– III • EXAMINATION – SUMMER 2016****Subject Code: 930001****Date: 25/05/2016****Subject Name: Experimental Design and Patents****Time: 2:30 pm – 05:30 pm****Total Marks: 80****Instructions:**

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

- Q.1** (a) Define following as per Indian Patent Act 1970 **06**
 i) Inventive step
 ii) Exclusive License
 iii) Medicine
 (b) Enumerate at least 10 non patentable subject matters. **05**
 (c) Describe compulsory licensing. **05**
- Q.2** (a) Prepare mathematical model for compatibility testing of 5 excipients at 2 levels taking response at two degradation conditions. **06**
 (b) Write a detailed note on central composite design. **05**
 (c) Describe significance of contour plots giving an example. **05**
- Q.3** (a) Discuss the relevant provisions for opposition to grant of patent. **06**
 (b) How are claims drafted, illustrate with an example. **05**
 (c) Write a note on patent search. **05**
- Q.4** (a) What are intellectual property rights, how they are significant for the society and nation? **06**
 (b) Write an elaborative note on copy right. **05**
 (c) Elaborate on grounds for refusal of registration of trade mark. **05**
- Q.5** (a) Describe response surface methodology. **06**
 (b) Differentiate between one way and two way ANOVA. **05**
 (c) Explain Plackett-Burman design. **05**
- Q. 6** (a) Discuss different types of patent infringements. **06**
 (b) Describe PCT application. **05**
 (c) Discuss in brief Forms and Formats of Patent application and grant process. **05**
- Q.7** (a) Explain the terms Factors, Levels and Effects. **06**
 (b) Calculate the main effect and interaction by Yates method for the data given below (based on two replications)- **05**
- | | | | | | | | | |
|-----------|-----|----|----|----|-----|----|-----|-----|
| Treatment | 1 | A | B | AB | C | AC | BC | ABC |
| Yield | 135 | 65 | 60 | 95 | 110 | 95 | 115 | 100 |
- (c) Write brief note on cross over design. **05**
