

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER- VIII• EXAMINATION – WINTER -2021

Subject Code: BP814TT**Date: 30/11/2021****Subject Name: Pharmaceutical Product Development****Time: 10:30am to 01:30pm****Total Marks: 80****Instructions:**

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

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| Q.1 | (a) What is pharmaceutical product development? Give the objectives of pharmaceutical product development in details | 06 |
| | (b) Write a note on Cyclodextrins and their applications in solid dispersion. | 05 |
| | (c) Give detail classification of directly compressible adjuvants with examples. | 05 |
| Q.2 | (a) Explain Non - ionic surfactants and their applications as emulsifier. | 06 |
| | (b) Discuss the role of various excipients used in parenteral Preparation | 05 |
| | (c) Explain various elements of QbD. | 05 |
| Q.3 | (a) Explain the role of various excipients used in aerosol preparation. | 06 |
| | (b) Write a note on risk assessment methodology with its tools. | 05 |
| | (c) Explain in details: Excipients use for formulation of NDDS. | 05 |
| Q.4 | (a) Explain factorial design with example. | 06 |
| | (b) Give manufacturing and quality control testing of Liquid Dosage form. | 05 |
| | (c) Discuss in details various Semi solid excipients with examples. | 05 |
| Q.5 | (a) Discuss applications of quality by design in detail. | 06 |
| | (b) Write a note on Coat materials used in Tablet Coating. | 05 |
| | (c) Discuss experimental design with its use in detail. | 05 |
| Q. 6 | (a) Give manufacturing and quality control testing of Solid dosage form. | 06 |
| | (b) Describe different test of plastic containers in detail. | 05 |
| | (c) What are different test of closures? | 05 |
| Q.7 | (a) Explain function and features of packaging. | 06 |
| | (b) Write a note on excipients use in capsule. | 05 |
| | (c) Write a note on stability assessment sterile Dosage form. | 05 |
