

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
TEST-3 EXAMINATION- JUNE -2016  
B.Tech/ M.Tech X<sup>th</sup>/IV<sup>th</sup> Semester

COURSE CODE: 14M1WBT334

MAX. MARKS: 35

COURSE NAME: QC Analysis and Management

COURSE CREDITS: 03

MAX. TIME: 2 HRS

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q1. Answer the following questions.

[2 x 5=10]

- a) Why do we need quality assurance in environmental monitoring?
- b) List the steps followed in product annual review.
- c) Why good documentation practices are necessary?
- d) How the concept of quality management evolved over time?
- e) What is stability validation method programme?

Q2. Explain/ answer the following questions

[3 x 5=15]

- a) Audit is necessary in quality management system in any Biotech/Pharma industry. How auditor ensures that GLP is followed in lab or not?
- b) What is validation? Why should process be validated? How it is done?
- c) The role of sensory evaluation in food quality control.
- d) Define each of the following terms as they relate to Kano's model: dissatisfier, satisfier, and exciter/delighters. Explain how an exciter/delighter can become a satisfier in general and then provide a specific product example.
- e) What is meant by "six sigma quality" with respect to defect expectations?

Q3. What are fundamentals of the theory of constraints? How you can identify and tackle a process constraint? [5]

Q4. Write in detail about the quality control aspects in production of Bio-pharmaceuticals by giving more emphasis on "Validation" strategies? [5]