## **Question Paper**

Exam Date & Time: 08-May-2019 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

MPharm - Pharmaceutical Quality Assurance

MPharm Semester 2 - End-Semester Examination May 2019

Date: 08/05/2019

Pharmaceutical Manufacturing Technology [PQA-MQA204T]

Duration: 180 mins. Marks: 75 SECTION - A Answer all the questions. Answer the following (10 marks x = 50 marks) (10)Discuss the levels and steps of production planning? 1) (10)Explain the quality challenges of prefilled syringe, needle free injection and large volume parenteral. (10)What steps should be taken to improve the efficiency of material 3) handling in pharmaceutical industry? Enlist and explain different types of glasses intended for (10)4) pharmaceutical manufacturing. Which PAT tools should be implemented to enable the (10)5) development of robust manufacturing processes? SECTION - B Answer all the questions. Answer the following (5 marks  $\times$  5 = 25 marks) List various forms required to obtain the wholesale and (5)6) distribution license of drugs in India. (5)Write a note on form, fill, seal technology. 7) How pan variables affect the quality of tablet coating? (5)8) Discuss the tests for plastic containers intended to use in the (5)9) packaging of non-injectable preparations. (5)Write a note on control strategy used in the QbD approach. 10)

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