## **Question Paper**

Exam Date & Time: 04-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 II - End-Semester Examination May 2019 Date: 04/05/2019

Pharmaceutical Validation [PQA-MQA202T]

Duration: 180 mins. Marks: 75 **SECTION - A** Answer all the questions. Answer the following (10 marks x = 50 marks) (10)Describe important factors to be considered for tablet process validation. Explain mechanical calibration and performance verification test (10)for type 1 dissolution apparatus. Describe operational qualification and performance qualification of (10) 3) **HPLC** (10)What is Validation master file? Explain its principle and contents 4) for a pharmaceutical industry Analyse the parameters of "validation of analytical methods for (10)5) cleaning". Discuss the keys to method validation. SECTION - B Answer all the questions. Answer the following (5 marks  $\times$  5 = 25 marks) (5)What are LOD and LOQ? Explain its determination methods. (5) Explain objective and advantages of factory acceptance test 7) Explain the pharmaceutical water system validation life cycle. (5)8) (5)9) Explain the types of validation. (5)Explain the computer system life cycle approach for a 10)

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pharmaceutical industry