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Total No. of Pages : 01

Total No. of Questions : 06

M.Pharm(Pharmaceutical Chemistry) (2017 &amp; Onwards) (Sem.-2)

**PHARMACEUTICAL PROCESS CHEMISTRY**

Subject Code : MPC-204T

M.Code : 74958

Time : 3 Hrs.

Max. Marks: 75

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of SIX questions.
2. Each question carries FIFTEEN marks.

1. (a) Explain in details validation of large-scale process. (7.5)  
(b) Define Impurity. Discuss different types and sources of impurities. (7.5)
2. (a) Discuss the azeotropic distillation. (5)  
(b) Give the general methods for preparation of polymorphs. (5)  
(c) Differentiate between process and vacuum filtration. (5)
3. (a) Define Nitrating agents with examples. Explain kinetics and mechanism of nitration. (8)  
(b) What is halogenation? Mention case study on Industrial halogenations process. (7)
4. (a) Write a note on homogenous and heterogeneous catalyst. (5)  
(b) Give general method for production of Penicillin. (5)  
(c) Mention characteristics of expedient routs. (5)
5. (a) Write a detailed note on OHSAS-1800 and ISO-1400. (10)  
(b) What is effluent? Discuss its methods of management. (5)
6. (a) Explain  $H_2O_2$  and sodium hypochlorate as oxidizing agents. Give suitable examples. (5)  
(b) Write a note on types of fire and fire extinguishers. (5)  
(c) What is counter current extraction? (5)

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**

