

22-05-2024

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Winter, 2024

M. Pharm 2nd Semester Examination

PHARMACEUTICAL PROCESS CHEMISTRY

Course Code: MPC204T

Full Marks – 75

Time – 03 hours

The figure in the margin indicates full marks for the questions.

A. Answer all (Word limit : 100 words)

10×2=20

1. Mention two non-metallic oxidizing agents.
2. Write the role of mixed acids for nitration with example.
3. Write the 2 types of technical nitration.
4. Write one difference between homogenous and heterogenous catalyst.
5. Define genotoxic impurities with examples.
6. Write the need of scale up process.
7. Define ozonolysis.
8. What is liquid phase oxidation?
9. Mention difference between bench and pilot scale.
10. Write the purpose of recrystallization.

B. Answer any seven (Word limit : 500 words)

7×5=35

1. Elaborate the kinetics of halogenation.
2. Write the production procedure of lovastatin.
3. Write the types of evaporators and factors affecting evaporation.
4. Write about synthetic strategies.
5. Explain about nitrating agents.
6. Explain Occupational health and safety assessment series 1800.
7. Define aerobic and anaerobic fermentation.
8. Write about the production of penicillin.
9. Write the crystallization from aqueous and non-aqueous solutions.

C. Answer any two (Word limit : 1000 words)

2×10=20

1. Explain in details about the impurities in API, types and their sources including genotoxic impurities.
2. Explain azeotropic and steam distillation methods with suitable examples.
3. Write in detail about fire hazards and types of fire extinguisher.