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JM—44—2025

FACULTY OF SCIENCE AND TECHNOLOGY

M. Pharmacy (Second Semester) EXAMINATION

FEBRUARY/MARCH, 2026

(CBCS PCI)

PHARMACEUTICAL MANUFACTURING TECHNOLOGY

Paper MQA-204T

(Thursday, 5-3-2026) **Time : 2.00 p.m. to 5.00 p.m.**

Time—3 *Hours* *Maximum Marks*—75

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

(*iii*) Answer to the point only.

1. Answer *all* the questions : 10×2=20

(*a*) What is QbD ?

(*b*) Discuss plastic as packing material.

(*c*) State applications of DOE.

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(*d*) Write importance of scheduling in manufacturing.

(*e*) Draw layout of parenteral manufacturing area.

(*f*) Define production planning.

(*g*) Enlist factors influencing plant location for a pharma industry.

(*h*) Differentiate between hard and soft gelatin capsule.

(*i*) Give advantages and disadvantages of process automation.

(*j*) What are needle free injections ?

2. Solve any *two* of the following : 2×10=20

(*a*) Describe in detail IPQC tests for parenterals.

(*b*) Explain in detail quality control tests for glass containers.

(*c*) Discuss in detail process automation in pharmaceutical industry.

3. Solve any *seven* of the following : 7×5=35

(*a*) How standard cost for a product is calculated ?

(*b*) Discuss IPQC tests for capsule.

(*c*) Explain in detail elements of QbD.

(*d*) Discuss in detail types of coating.

(*e*) Write a note on process analytical technology.

(*f*) Discuss factors affecting selection of plant location.

(*g*) Explain about non-sterile manufacturing technology.

(*h*) Give in detail about Blow Fill Seal Technology (BFS).

(*i*) Discuss about analytical QbD in detail.

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