



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:VII
Class:FINAL	Program:B.Tech
Branch Code:CIV	Pattern:2022
Name of Course:Plumbing Engineering	Course Code:CIV224006B
Max. Marks:30	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1 Write any 3 names of national or International codes on Plumbing (3) CO1

Question No. 2

- 2 What are the functions of ...i) S Trap ii) Thermostatic Valve iii) Inceptor (3) CO2

Question No. 3

- 3.a) What is Unsteady flow? Provide the equation of Unsteady flow with examples. (4) CO3

OR

- 3.b) What is concept of Water Hammer .What is its significance ? (4) CO3

- 3.c) With help of sketch, explain concept and working of the Centrifugal Pump. (4) CO3

OR

- 3.d) A centrifugal pump has outer diameter of casing equal to 2 times the inner diameter. The velocity of flow through the impeller is 2 m/s. If the width at outlet is 10 cm and outer diameter is 100 cm. Calculate the discharge through the pump (4) CO3

Question No. 4

- 4.a) In which sectors of Plumbing, the Artificial Intelligence can contribute (4) CO4

OR

- 4.b) Which are the Design Issues in Plumbing where BIM Model can be used for Optimization ? (4) CO4

- 4.c) Differentiate between Storage Based Rain Water Harvesting and Percolation Based Rain Water Harvesting (4) CO4

OR

- 4.d) Explain the practical significance of Rain Water Harvesting . (4) CO4

Question No. 5

- 5.a) Describe Super Tube System for High Rise Structures along with its Key Features developed by Geberit (4) CO5

OR

- 5.b) Explain any four types of Valves and name their manufacturers. (4) CO5
- 5.c) Write special features of CPVC Plumbing System for Hot and Cold Water .Also write a name of manufacturer of this system (4) CO5

OR

- 5.d) Write special features of SWR UPVC Pipes for Drainage Systems. (4) CO5

..... End of question paper.....