DAY — **16** SEAT NUMBER | | | | | | |

2025	III	04	1500	**J-388**	(E)

ADVANCE PLUMBING TECHNICIAN (G2)
(REVISED COURSE)

Time : 3 Hrs. **(4 Pages)** **Max. Marks : 80**

Note : *(1) All questions are compulsory.*
(2) Draw neat and well labelled diagrams wherever necessary.
(3) Figures given on the right side are full marks.
(4) Write answers to all questions on new pages.

Q. 1. (A) Select the most appropriate options and fill in the blanks : (5) **[20]**

(1) A sensor-based faucet that uses infrared technology to detect hand movement is called _____ faucet.
(a) automatic (b) manual
(c) touchless (d) hybrid

(2) The pipe material commonly used for hot water supply in modern plumbing systems is _____ .
(a) PVC (b) CPVC
(c) UPVC (d) GI

(3) In ICT, the term 'URL' stands for _____ .
(a) Uniform Resource Locator
(b) Universal Resource Link
(c) Unified Resource List
(d) User Requested Link

(4) The component responsible for controlling water flow in a sensor-based faucet is a _____.

(a) Battery (b) Sensor
(c) Solenoid valve (d) Timer

(5) SOP in plumbing work stands for _____ .

(a) Standard Operating Procedure
(b) System Optimization Process
(c) Specific Operational Plan
(d) Systematic Operational Protocol

(B) Match the following pairs : (5)

Group 'A'	Group 'B'
(a) Team work	(1) Rainwater harvesting
(b) Entrepreneurial skills	(2) Effective work culture
(c) CPVC pipes	(3) Innovation and risk taking
(d) Borewell recharging	(4) Hot water supply
(e) Sensor based urinal	(5) Water conservation

(C) State whether the following statements are True or False : (5)

(1) UPVC pipes are suitable for hot water supply system.

(2) Presentation software is a component of ICT skills.

(3) Solenoid valves are not used in sensor-based plumbing fixtures.

(4) Effective communication includes both verbal and non-verbal elements.

(5) Sensor-based showers always require electrical connections.

(D) Answer the following questions each in 'One' sentence only : (5)

(1) What is the importance of dress code in organisations?

(2) Name any one advantage of using CPVC pipes in plumbing systems.

(3) What is the main purpose of a battery in a sensor-based faucet?

(4) Mention one input device used in ICT.

(5) State any one benefit of working effectively with others in a plumbing project.

Q. 2. Answer the following questions in short (Any FOUR) : **[12]**

(1) Explain the working principle of a sensor-based faucet.

(2) Describe the process of installing a wall-mounted water closet.

(3) Write Standard Operating Procedures (SOP) for cutting and fitting CPVC pipes.

(4) Write the components of effective communication.

(5) Explain the importance of a hydro-pneumatic water pressure pumping system.

(6) Define green skills and mention any two green jobs in the plumbing sector.

Q. 3. Answer the following questions in short (Any FOUR) : **[12]**

(1) Outline the steps to follow while installing a sensor-based urinal.

(2) How can one manage stress effectively in a high pressure work environment?

(3) Describe the process of connecting a drinking water line from a municipal pipeline through a water meter.

(4) Write the advantages of using sensor-based plumbing fixtures.

(5) Explain the concept of inclusive language in workplace communication.

(6) List ways to manage interpersonal conflicts effectively in a plumbing team.

Q. 4. Answer the following questions in detail (Any THREE) : **[12]**

(1) Explain the installation procedure for a sensor-based shower system.

(2) Describe the components and working of a rainwater harvesting filter column for borewell recharging.

(3) Write the different types of sentences used in communication.

(4) Give the outline of SOP for installing an above-counter wash basin.

(5) Explain the processes of cold welding joints in CPVC pipe installation.

Q. 5. Answer the following questions in detail (Any THREE) : **[12]**

(1) Discuss the importance and application of solar water heaters in modern plumbing system.

(2) Explain the concept of Occupational Health and Safety (OHS) in plumbing work.

(3) Describe the process of goal setting in self management.

(4) What are the indicators of harassment and discrimination in the workplace?

(5) Explain the installation and repair process of a sensor-based cistern.

Q. 6. (A) Answer the following questions in detail (Any ONE) : (6) **[12]**

(1) Describe the complete installation process of a hydro-pneumatic water pressure pumping system.

(2) Explain the different types of entrepreneurs and the barriers they might face in the plumbing industry.

(B) Answer the following questions in detail (Any ONE) : (6)

(1) Discuss the selection criteria for sensor based faucets and explain their installation procedure in detail.

(2) Explain the importance of teamwork in plumbing projects and describe how to develop an effective work culture.

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