



# 17607

11819

3 Hours / 100 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions :**
- (1) *All questions are compulsory.*
  - (2) *Answer **each** next main question on a new page.*
  - (3) *Illustrate your answers with **neat** sketches **wherever** necessary.*
  - (4) *Figures to the **right** indicate **full** marks.*
  - (5) *Assume suitable data, if **necessary**.*
  - (6) *Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.*

**Marks**

1. Attempt **any five** of the following : **20**
  - a) Explain the importance of Plumbing services.
  - b) Explain the use of codes and standards in Plumbing services.
  - c) Define accessible fitting, flood level rim carrier and floor sink.
  - d) Mention dimensions of wash basin, sink, water closet and display fountain.
  - e) Define trap and trap seal.
  - f) List any two materials used for sanitary drainage with their advantage.
  - g) List any four sources of water.
  
2. Attempt **any 4** of the following : **16**
  - a) Explain role of AHJ in plumbing services.
  - b) Define stack vent and branch vent.
  - c) State any four functions of trap.
  - d) Explain any two jointing methods in drainage system.
  - e) Explain any two methods of pipe protection in sanitary drainage.
  - f) Define grey water and reclaimed water.
  
3. Attempt **any 4** of the following : **16**
  - a) Explain working of any 1 prohibited trap.
  - b) Explain working of fixtures below inverted level.
  - c) Define strainer and sub-drain.

**P.T.O.**



- d) Define potable and non-potable water.
  - e) List any 2 colour codes used in water supply system with their purpose.
  - f) Explain rain water harvesting in plumbing services with neat sketch.
4. Attempt **any 2** of the following : **16**
- a) Explain significance of architectural and structural co-ordination in plumbing services.
  - b) Explain working of macerating toilet system with a neat sketch.
  - c) Explain installation of water closet with a neat sketch.
5. Attempt **any 2** of the following : **16**
- a) Explain working of Air Admittance Valve with a neat sketch.
  - b) Explain water cooler and cloth washer as water conserving fixture.
  - c) State any 8 requirements of good trap.
6. Attempt **any 2** of the following : **16**
- a) Explain one pipe and two pipe system in plumbing services with neat sketches.
  - b) Explain discharging of storm water in a residential bungalow.
  - c) Explain hot and cold water distribution system with a neat sketch.
-