

PLUMBING AND PIPE FITTING

EXAMINATION SCHEME

There will be three papers, Papers 1, 2 and 3, all of which must be taken.

Papers 1 and 2 shall be a composite paper to be taken at one sitting.

Paper 1: will consist of forty multiple-choice objective questions all of which are to be answered in 1 hour for 40 marks.

Paper 2: will consist of five short-structured essay questions out of which one is compulsory. Candidates will be required to answer the compulsory question and any other 3 in 1 hour for 60 marks.

Paper 3: will be a practical test of 1 hour 30 minutes duration. It will consist of three questions out of which candidates will be required to answer any two for 100 marks.

A list of materials for the test shall be made available to schools not less than two weeks before the paper is taken for material procurement and relevant preparations.

Paper 3: ALTERNATIVE TO PRACTICAL TEST

The Council may consider testing candidates' ability in practical work as prescribed in the syllabus in the event that materials for the actual practical test cannot be acquired. For this alternative test, there will be three questions out of which candidates will be required to answer any two in 2 hours for 100 marks.

SAMPLE QUESTIONS

PAPER 1 (OBJECTIVE)

1. The two groups of sanitary appliance are called
 - A. soil and waste.
 - B. soil and water.
 - C. waste and water.
 - D. waste and vent.

2. Which of the following sanitary appliances is used in a kitchen?
 - A. Bath tub
 - B. Sink

- C. Water closet
 - D. Shower
3. The following materials are used for manufacturing of sanitary appliance **except**
- A. stone ware.
 - B. stainless steel.
 - C. ceramic ware.
 - D. aluminium sheet.
4. A septic tank is constructed to receive waste from
- A. kitchen sink.
 - B. shower bath.
 - C. water closet.
 - D. wash hand basin.
5. The distance of cesspool to a dwelling house should be between
- A. 20 – 23 m.
 - B. 20 – 33 m.
 - C. 20 – 43 m.
 - D. 20 – 53 m.
6. Which of the following is used for private sewage?
- A. Gully and manhole
 - B. Single stack and manhole
 - C. Septic tank and soakaway
 - D. Cesspool and benching
7. Which of the following is a welding process used for capillary joints?
- A. Brazing
 - B. Bronze
 - C. Arc
 - D. Fussion
8. The following are the types of flame used in gas welding **except**

- A. neutral.
- B. oxidizing.
- C. carburizing.
- D. brazing.

ESSAY (SHORT STRUCTURED)

1. (a) List **four (4)** items that should be included in a first aid box in a workshop.
 - (b) (i) Sketch a hacksaw.
 - (ii) State the **main** function of a hacksaw.
- (c) State **four** properties of a pipe.
2. (a) Explain the function of **each** of the following pipe fittings:
 - (i) elbow;
 - (ii) tee;
 - (iii) socket.
- (b) State **two** methods of jointing copper pipe.
- (c) Describe the **three** types of flame used in gas welding.
3. (a) (i) State the **three** sources of water.
- (ii) Give one example of **each**.
- (b) Define a water treatment.
- (c) Illustrate with diagram, the direct system of cold water supply.

PAPER 3 (ALTERNATIVE TO PRACTICAL)

- (a) Use a sketch to illustrate the procedure for joining a 25mm bore PVC pipe.
- (b) Describe the procedure illustrated in (a) above.

