



7465 WATER SUPPLY AND DRAINAGE NETWORKS PROCESSES 3

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

Technical and Vocational Education Examination

JUNE XXXX

ADVANCED LEVEL

Specialty Name (Specialty Code)	PLUMBING HYDRAULICS AND SANITARY INSTALLATION
Subject Title	WATER SUPPLY AND DRAINAGE NETWORKS PROCESSES
Paper No.	3
Subject Code No.	7465

Duration: Four hours

INSTRUCTIONS TO CANDIDATES

1. *You are reminded of the necessity for good English and orderly presentation in your answers.*
 2. *You are advised to read carefully through the question paper, before you begin your answers.*
 3. *You are requested to bring your personal workshop tools and be equipped with your personal protection gears.*
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Turn Over

I- PRESENTATION :

For the installation of a kitchen, you are requested to install a kitchen sink as indicated on the execution plan of page 3.

- The cold water distribution network is in PVC pressure pipe of nominal diameter 25mm. The supply pipe starts from the riser coming from the lower floors.
- The domestic hot water distribution network is in Alu- plastic compression pipe of ϕ 16mm. The hot water pipe starts from an electric hot water pipe which is located at the lower floor levels.

I- TECHNICAL SPECIFICATIONS :

Label	Designation	Label	Designation
1	PVC drainage pipe of ϕ 63	7	90° bend on PVC pressure pipe 25 and Alu-plastics compression of ϕ 16
2	PVC offset Tee 45° branch + PVC 1/8 elbow of ϕ 63+ PVC reduction 63/40	8	PVC pressure pipe of ϕ 25
3	PVC drainage pipe 40	9	Cross over on PVC pressure pipe of ϕ 25
4	PVC offset Tee 45° branch + PVC 1/8 elbow of ϕ 40 + PVC reduction of ϕ 63/32	10	Socket on PVC drainage pipes of ϕ 63 and ϕ 40
5	Alu- plastic compression pipe of ϕ 16	11	Cross over on PVC pressure pipe of ϕ 25 and Alu-plastics in compression pipe of ϕ 16
6	Brass compression Tee fitting 16		

II – TECHNICAL SPECIFICATIONS**NB :**

- All dimensions are in centimeters (cm) ;
- All complementary information not provided is left to the initiative of the candidates.t.

III – WORK REQUIRE

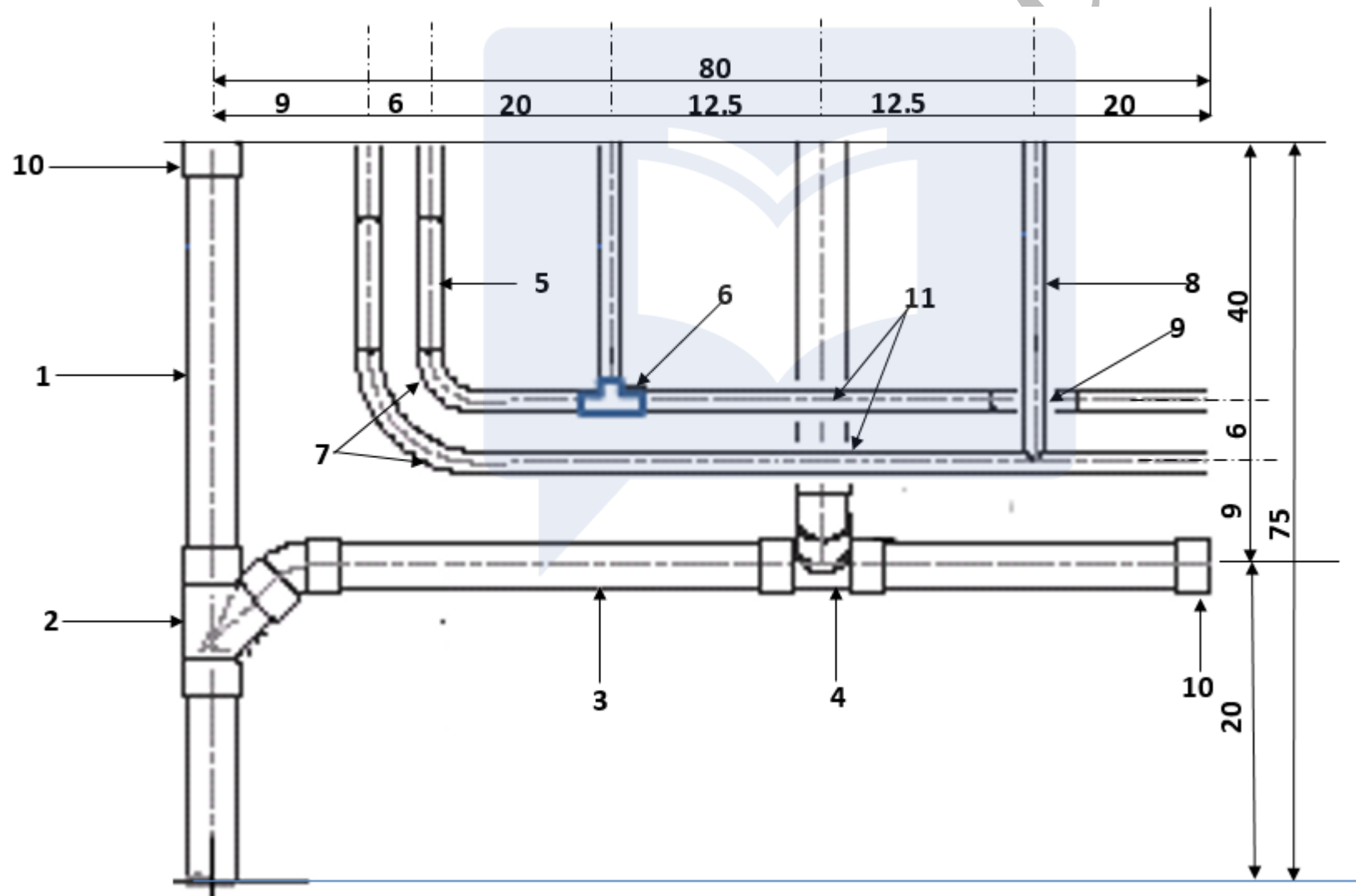
On the walls of the plumbing cabinet in the workshop or on a piece of plywood and in conformity with the execution plan of page 3/3:

- 1- Trace the pipelines circuits of the different networks.
- 2- Bend and position the different networks.

IV – MARKING GUIDE:

N°	Designation	Marks
1	Dimensions (80, 55, 40, 20, 12.5, 6)	5x6= 30 marks
2	90° bending on PVC pressure pipe of ϕ 25 and Alu- plastics compression pipe of ϕ 16.	2x10= 20 marks
3	Cross over on PVC pressure pipe of ϕ 25.	15 marks
4	Cross over on PVC pressure on pipe of ϕ 25 and on Alu- plastic compression pipe of ϕ 16.	4x7.5= 15 marks
5	Positioning and solidity of pipe clips.	4x5= 10 marks
6	Exactitude and presentation	10 marks
	Total	100 marks

INSTALLATION OF A KITCHEN SINK





QUANTITY ESTIMATE PER CANDIDATE

N°	DESIGNATION	UNIT	QUANTITY
1	Alu-plastic compression pipe of ϕ 16mm	m	1.50
2	PVC pressure pipe of ϕ 25		2.00
3	PVC drainage pipe of ϕ 40	m	1.50
4	PVC drainage pipe of ϕ 63	m	0.75
5	PVC Y-offset 45° branch Tee of ϕ 40	m	01
6	PVC Y- offset 45° branch Tee of ϕ 63	U	01
7	PVC 1/8 elbow of ϕ 63	U	01
8	PVC 1/8 elbow of ϕ 40	U	01
9	Brass compression fitting of ϕ 16	U	01
10	PVC pressure straight Tee of ϕ 25	U	01
	PVC drainage reduction 63/40	U	01
11	Pipe clips of ϕ 16	U	04
12	Pipe clips of ϕ 26	U	04
13	Pipe clips of ϕ 40	U	03
14	Pipe clips of ϕ 63	U	02
15	Sieved and dried sand	/	/

I- LIST OF TOOLS : EQUIPMENT TO BE SUPPLY BY THE EXAMINATION CENTER

- ✓ 01 metallic sheet of 50 cmx 50 cm for template / candidate.
- ✓ Bench or tripod stands pipe vices.
- ✓ OA complete welding post.

II- LIST OF INDIVIDUAL TOOLS

- ✓ 01 Hack saw;
- ✓ 01 Semi round file;
- ✓ 01 Flat file;
- ✓ 01 Folding meter (5ml);
- ✓ 01 screw driver set ;
- ✓ 01 hammer ;
- ✓ 01 Punching tool ;
- ✓ 01 Plumber's blow lamp ;
- ✓ 01 Carpenter's pencil ;
- ✓ 01 Spirit level;
- ✓ 01 Chaulk line;
- ✓ 01 tracer;
- ✓ 01 Builder's mason ;
- ✓ 01 compass.

III- LIST OF PERSONAL PROTECTION EQUIPMENT / GEARS

- ✓ Coverall,
- ✓ Safety shoes,
- ✓ Safety helmets
- ✓ Safety goggles,
- ✓ Gloves.