



Plumbing Technology 1
5460

JUNE XXXX

INTERMEDIATE LEVEL

Centre No. & Name	
Candidate No.	
Candidate Name	

Mobile phones are **NOT** allowed in the examination room.

5460 1 PLUMBING TECHNOLOGY 1: MULTIPLE CHOICE QUESTION PAPER

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the examination begins:

3. Check that this question booklet is headed “**Intermediate Level – 5460 1 C Plumbing Technology 1.**”
4. Insert the information required in the spaces above.
5. Insert the information required in the spaces provided on the answer sheet using your HB pencil:

Candidate Name, Exam Session, Subject Code, Centre Number and Candidate Number.

Take care that you do not erase or fold the answer sheet or make any marks on it other than those asked for in these instructions.

How to answer the questions in this examination:

6. Answer **ALL** the **50** questions in this Examination. All questions carry equal marks.
7. Each question has FOUR suggested answers: **A, B, C** and **D**. Decide which answer is correct. Find the number of the question on the Answer Sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen.
For example, if **C** is your correct answer, mark **C** as shown below:
[A] [B] [**C**] [D]
8. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, then mark your new answer.
9. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
10. Do all rough work in this booklet, using, where necessary, the blank spaces in the question booklet.
11. **You must not take this booklet and the answer sheet out of the examination room. All question booklets and answer sheets will be collected at the end of the examination.**

Turn Over

1. Choose which is not a personal protection safety gear:

A	Neck tie.
B	Overall.
C	Safety helmet.
D	High reflective safety jacket.

2. Site installation starts with:

A	Delivery of plumbing fixtures to the site.
B	Ordering of piping materials.
C	Site visit.
D	Desk top activity.

3. Work planning involves:

A	Elaborating the chronogram of activities.
B	Elaborating the time schedule.
C	Elaborating the purchase order, personnel need, equipment.
D	All of these.

4. Choose that which is not a safety condition when using ladders:

A	Always face the ladder when climbing and descending.
B	Back the ladder when descending.
C	Check that the ladder is in good condition.
D	Make sure that the ladder extend above the targeted work point.

5. The HSS officer in the site is in charge of:

A	Work supervision.
B	Procuration of materials and equipment.
C	Supervise and control health, hygiene and safety issues on the site.
D	Write reports on site meetings.

6. First aid treat is:

A	Permanent treatment.
B	Temporary treatment.
C	Professional treatment.
D	Private treatment.

7. Hand operating tools are powered by:

A	Electricity.
B	Compressed air.
C	Hydrocarbon fuel.
D	All of these.

8. A pipe vice is used in:

A	Cutting pipe.
B	Reaming the burrs at the end of cut pipes.
C	Supporting and stabilizing pipe when

	working on pipes.
D	Bending pipes.

9. A chalking line is use:

A	Materializing lines on different supports.
B	Materializing horizontal/vertical lines.
C	Tracing the axis of fixtures.
D	All of these.

10. Threaded joints are used on:

A	PVC pipes.
B	GI pipes.
C	PVC pipes.
D	Copper pipes.

11. Choose the fittings that are recommended for the change of flow from horizontal to vertical in a drainage network:

A	Straight T+ 1/4 elbow.
B	Y offset 45° branch +1/8 elbow.
C	Y offset 45° branch +1/4 elbow.
D	Straight T only.

12. Malleable bushings are used:

A	Taking the difference in diameter when a smaller pipe is connected to a large pipe.
B	Increase the diameter of the pipeline.
C	Reduce the diameter of the pipeline.
D	Connect two pipes of different diameters.

13. A GI Tee fitting is designated as 1''x3/4''x1/4''; the opening on the branch is:

A	1''.
B	3/4''.
C	1/2''.
D	1/4''.

14. Mechanical joints are used on :

A	Coppers pipes.
B	GI pipes.
C	ABS pipes.
D	CPVC pipes.

15. The flux paste is applied at the ends of pipes and sockets on copper pipe has as function:

A	Increase the solidity of the joint.
B	Increase the soldering temperature.
C	Prevent oxidization during soldering.
D	Increase the wetness of the joint.

16. A peak period, a storm drain flowing full bore has a diameter of 150mm. Calculate the cross-sectional area of the drainage pipe:

A	0.0177 m ²
B	0.177 m ²
C	1.77 m ²
D	17.7 m ²

17. A concreted flat roof measures 4m long and 2m long. Find the area of the roof.

A	80 m ²
B	0.80 m ²
C	8.00 m ²
D	0.008 m ²

18. The hydrostatic pressure in the public main supply an agglomeration is 3 bars. Find the equivalent in meter head of water:

A	30m.
B	3m.
C	300m.
D	0.30m.

19. A gravity spring has a flow rate of 0.17l/s during the dry season peak. This spring is to feed a storage tank located upstream the village. The tank has a useful storage capacity of 17000l. Find the time in hours needed to fill the tank:

A	27.8H.
B	2.78H.
C	278H.
D	0.278H.

20. Chalking anchor bolts are recommended for fastening in:

A	Concrete walls.
B	Masonry walls.
C	Solid wooden walls.
D	All of these.

21. Toggle wing bolts are used in fastening in:

A	Solid masonry walls.
B	Concrete walls.
C	Cavity walls.
D	Curtain walls.

22. A valve that has the characteristics of « full flow » is known as:

A	A globe valve.
B	Gate valve.
C	Float valve.
D	Check valve.

23. A float valve :

A	Prevents flow in the reverse direction.
B	Controls the flow in the pipeline.
C	Regulates the water level in a

	cistern/tank.
D	Purges the pipeline.

24. A purge valve:

A	Controls flow in the pipeline
B	Check the flow in the reverse direction
C	Evacuate the trap air in the pipeline
D	Drain the pipeline prior to maintenance work or in case of contamination;

25. Water hydrants:

A	Points for drawing water for cleaning the streets.
B	Points for drawing water for irrigating plantations.
C	Points for drawing water for fire fighting.
D	Points for drawing water for watering green spaces.

26. A vacuum breaker is used to:

A	Solve water hammer.
B	Prevent cross connection.
C	Reduce hydrostatic pressure.
D	Relieve pressure within the pipeline.

27. Choose which is not a source for potable water destined for human consumption

A	River beds.
B	Wells.
C	Sea.
D	Springs.

28. The public service provider of potable water in Cameroon is:

A	SNEC.
B	MTN.
C	CAMWATER Utilities.
D	CAMTEL.

29. Pick out which is not an advantage of ramified networks:

A	Low investment and exploitation cost.
B	Simplicity in conception and construction.
C	Needs highly qualified personnel for construction and exploitation.
D	Use natural energy (gravity) to activate flow.

30. Chlorination inoculates or sterilize potable water by :

A	Eliminating pathogenic micro-organisms.
B	Promoting the development of bacterial nests.
C	Increase the organoleptic quality of water.
D	Provoke the sedimentation of elements in suspension.

31. The sedimentary basin in a gravity scheme serves:

A	As a storage tank.
B	As a slow sand filter(biological treatment).
C	As a sedimentation basin.
D	All of these.

32. The pressure within the distribution main is equal to :

A	The calculated hydrostatic pressure.
B	The difference between the altitude of the tank and the agglomeration.
C	The height of the tallest building in the agglomeration.
D	The manometric height of the pumps.

33. The main treatment in the clarification process of treating raw water is:

A	Chlorination.
B	Coagulation/flocculation.
C	Sedimentation.
D	Filtration.

34. Pumps are:

A	Use to increase the hydrostatic pressure.
B	To transport fluids through two difference elevation altitudes.
C	Enhance the flow rate.
D	All of these.

35. Hydraulic pistons are created by:

A	Poor design drainage networks.
B	Full bore flow in small diameter pipes.
C	Absence of ventilation network in the drainage system.
D	All of these.

36. Drainage stacks are:

A	Horizontal drainage pipes.
B	Ventilation pipes.
C	Vertical drainage pipes in storey buildings.
D	Branch drains.

37. In a public sewerage system, the combine drain transports:

A	Rain water only.
B	Domestic waste water only.
C	Industrial waste water.
D	Domestic wastewater and rainwater.

38. In a private property domestic waste water is treated by:

A	A lagoon.
B	A cesspool.
C	A septic installation.

D An activated sludge system.

39. A leaching Field :

A	Evacuate treated effluent to a river bed.
B	Treat effluent by biological digestion
C	Evacuate effluent by percolation into the sub soil.
D	Evacuate effluent into a drainage basin.

40. The bacterial digestion in a septic tank is done by

A	Aerobic bacteria.
B	Anaerobic bacteria.
C	Facultative bacteria.
D	Fungi.

41. The pipe that connects the subscriber and the public main and conveys the totality of the water needed in the building is:

A	The supply pipe.
B	The distribution pipe.
C	The service pipe.
D	The riser.

42. The warning grid for buried water distribution network is:

A	Blue.
B	Brown.
C	Red.
D	Yellow.

43. Boosting pumps or circulators are used to:

A	Prevent cavitation.
B	Reduce the flow speed.
C	Increase the pressure in the distribution pipeline.
D	Reduce water hammer.

44. Air vessels are used in distribution network:

A	To augment the pressure within the pipeline.
B	To fight against water hammer.
C	To equalize the internal distribution pressure.
D	All of these.

45. The small electric current in a gas fired heater is produced by:

A	The thermocouple.
B	The thermostat.
C	The pilot light.
D	The heating element.

46. The recovery time :

A	Time take to pump hot water.
B	The time taken to circulate hot water from the heater to the draw off point.
C	Is the tune needed to store heated water.
D	Is the speed taken to heat water to its

	required temperature.
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47. Pick out which is not a standard function of a safety valve:

A	Acts as a valve (commands the cold water feed line).
B	Decompress the water heater.
C	Prevent water hammers in the heater.
D	Drains the contain of the reservoir prior to maintenance.

48. The main principle of heating in a hot water heater is:

A	Radiation.
B	Convention.
C	Conduction.
D	Combustion.

49. The plumbing fixture recommended for localized hygiene is:

A	WC bowl.
B	Bath tub.
C	Lavatory.
D	Urinal stall.

50. The overflow orifice in a lavatory is to:

A	Prevent flooding, when the flushing mechanism is blocked.
B	Prevent cross connection.
C	Connect the basin to the faucet.
D	Drain the basin.