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BUGESERA DISTRICT

**TSS 2nd TERM DISTRICT COMPREHENSIVE ASSESSMENT
SCHOOL YEAR: 2024-2025**

MARKING GUIDES

...../100 MARKS

SECTOR: CONSTRUCTION AND BUILDING SERVICES

TRADE: BUILDING CONSTRUCTION

RQF LEVEL: 3

MODULE CODE AND TITLE: BDCBP301: DEMONSTRATE BASICS OF PLUMBING

DURATION: 3HOURS

DATE: / / 2025

INSTRUCTIONS TO CANDIDATE:

- ✓ **This exam has three sections.**
- ✓ **Maximum marks...../ 100 Marks**
- ✓ **Attempt all Questions in A**
- ✓ **Choose only THREE questions in section B.**
- ✓ **Choose only one question in section C.**

SECTION A: Attempt all questions /55marks

1. Define the following materials used in plumbing works. /6marks

- a) plumbing
- b) pipe fitting
- c) Sanitary fitting

2. What do you understand by the term pipe threads?/3marks

Answer: Pipe threads are specialized grooves cut onto the ends of pipes and fittings to create a strong, leak-proof connection. These grooves, resembling screw threads, interlock when two threaded components are screwed together, forming a tight seal.

3 Which of the following materials is commonly used for cold-water plumbing pipes?/2marks

- a) Copper
- b) PVC (Polyvinyl Chloride)
- c) Steel
- d) Cast Iron

answer: (b)

4. Which of the following is the most important PPE for protecting your hands while working with plumbing tools and pipes?/2marks

- a) Safety glasses
- b) Work gloves
- c) Hard hat
- d) Steel-toed boots

answer: (b)

5. Answer by TRUE if the statement is correct and FALSE if the statement is incorrect. /4marks

- a) Bathtub is a sanitary fitting used for washing body by immersion.
- b) Shower is also used for washing body in standing position
- c) Bath tub are provided with only the supply of cold water
- d) Drain pipe is used to evacuate waste water from bathtub

Answer : a) TRUE

b) TRUE

c) FALSE

d) TRUE

6. Outline any five (5) factors to consider when selecting the type of pipe for plumbing works. /5marks

ANSWER:

- Plasticity
- Ductility
- Durability
- Fusibility
- Malleability
- Temper
- Tenacity
- Thermal

7. While assembling galvanized steel pipe, it requires the application of Teflon tape/thread sealing tape, identify three reasons of it. /3marks

ANSWER:

1. Leak Prevention
2. Friction Reduction
3. Corrosion Protection
4. Easier Disassembly

8. What are the role of plumber ? / 3marks

ANSWE:

9. Which tool is commonly used to cut copper pipes during assembly? /2marks

- a) Pipe bender
- b) Pipe cutter
- c) Hacksaw
- d) Pipe wrench

ANSWER: (b)

10. Out line at least four 4 equipment used in plumbing works /4marks

11. Why is it important for plumbers to wear knee pads while performing certain tasks? /2marks

- a) To protect knees from cuts and bruises when kneeling
- b) To avoid overheating during work
- c) To maintain proper posture
- d) To prevent slipping on wet surfaces

answer; (a)

12. Which tool is typically required when installing a showerhead? /2marks

- a) Wrench
- b) Pipe cutter
- c) Pipe bender
- d) Hammer

answer: (a)

13. What is the purpose of a trap in plumbing installations for sanitary appliances? /2marks

- a) To prevent water from flowing backward
- b) To allow water to flow freely without obstruction
- c) To seal off the plumbing system from unpleasant odors and gases
- d) To prevent leaks in the pipes

answer: (c)

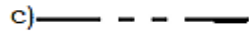
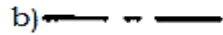
14. Which of the following is the first step when installing a new toilet? /2marks

- a) Connect the water supply line
- b) Install the toilet flange

- c) Install the wax ring
- d) Secure the toilet to the floor

answer: (b)

15. Name the following symbols as used in plumbing /4marks



Answer: a) valve

b) domestic cold water supply

c) domestic hot water supply

d) water meter

16 Match the following tools (Column A) with their corresponding use (Column B) /5marks

Column A	Column B
1. Die stock	A. Measuring the inner and outer diameter as well as depth measurement
2. Try square	b. For removing burrs formed when cutting the pipe
3. pipe reamer	C. Cutting the pipe to the required length
4. Vernier caliper	D. It is used to mark the Centre of circle or hole
5. pipe cutter	E. holding tool having two toothed jaws for holding pipe in position

17. give the function of the following PPE used in the plumbing works / 4marks

- a) Gloves
- b) Overall

c) Safety shoes

d) helmet

SECTION B: CHOOSE ONLY THREE QUESTIONS /30marks

18. Distinguish between threaded and soldered joints used to connect pipes.

Answer:

***Threaded joints** are a simple yet reliable method for connecting pipes. They involve screwing male and female threaded pipe ends together, creating a tight seal and strong bond. Here's a breakdown of their key features

***soldered joints** are a type of permanent connection made by joining pipe ends with a melted metal alloy called **solder**. The solder fills the gaps between the pipe and fittings, creating a strong, watertight seal when solidified.

19. Give all the steps to be followed when cutting the pipe by a pipe cutter

Answer:

- 1. Prepare the Pipe Cutter**
- 2. Measure and Mark**
- 3. Secure the Pipe**
- 4. Rotate the Cutter**

5. Repeat if Necessary

6. Smooth the Edges

7. Clean the Pipe

20. In five (5) factors, why plastic pipes are most popular used for domestic water Supply

Answer:

- ❖ Easy to connect
- ❖ Light in weight
- ❖ Not be rusting
- ❖ It is flexible
- ❖ No contamination
- ❖ Easy to maintain

21. Outline any five (5) different factors and conditions which can affect any pipe work.

Answer:

- Pressure
- Properties of the water
- Bending and jointing method
- Corrosion resistance
- Expansion
- Appearance
- Strength of the pipe
- Water carrying capacity
- Durability of the pipe
- Cost of buying
- Transportation method

22. Fill the table below which shows the types of fire extinguishers and their

uses.

CLASS	COLOUR CODE	CONTENT	USE
A		Water	
B		Foam	
C		Powder	
D		Carbon Dioxide	
E		Foam Or Powder	

ANSWER:

CLASS	COLOUR CODE	CONTENT	USE
A	Red	Water	Used to stop a fire produced by wood and paper.
B	Yellow	Foam	Used to stop burning liquid fire.
C	Blue	Powder	Used to stop burning liquid fire and electricity fire
D	Black	Carbon Dioxide	Used to stop burning liquid fire and electricity fire
E	Green	Foam Or Powder	Used to stop burning liquid fire and electricity fire

SECTION C: CHOOSE ONLY ONE QUESTION / 15marks

23. Give all the steps to be followed when cutting the pipe by using hack saw.

Answer:

pipe cutting using a hacksaw

Step 1. Prior to the cutting work, make sure that all PPE's are available and being used.

Step 2. Make measurements to the desired pipe length.

Step 3. mark the pipe where cutting is to be done.

Step 4. Make a cut at a 90 degrees angle to pipe.

Step 5. A fixture should be used to ensure an accurate cut.

Step 6. After pipe cutting, ream the pipe and file the end.

Step 7. Remove all the chips and fillings, making sure that no debris or particles get into tubing.

24. Enumerate ten (10) types of fittings used in plumbing works .

ANSWER:

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