



Ministry of Education  
Chumey Higher Secondary School  
Chummig: Bumthang  
Academic Year 2022



**TRIAL EXAMINATION**

Subject: Masonry  
Class: X

Writing Time: 1 hour  
Full Mark: 50 marks

INDEX CODE: 

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Invigilator's Initial: .....

**READ THE FOLLOWING INSTRUCTIONS CAREFULLY:**

1. Do not write for the first **fifteen minutes**. This time is to be spent reading the questions. After having read the questions, you will be given **one hour** to answer all of the questions.
2. Write your **INDEX CODE** properly on the answer sheet.
3. In this paper, there are two sections: **SECTION A** and **SECTION B**. Attempt **ALL** the questions.
4. **Read and re-read** carefully to understand the **instructions and questions** before answering them.
5. **Writing neatly and clearly** will always go well in **your favour**. If your writing cannot be read, **marks can't be awarded**.
6. The intended marks for each question or part of the questions are given in **brackets**.
7. **Do not** leave the examination hall **before you have made sure that you have answered all the questions**.

FOR TEACHER'S USE ONLY						
SECTION	A				B	
Question	1. a) (MCQ)	1. b) (T/F)	1. c) (Matching)	1. d) (Completion)	2. (SAQs)	3. (ERQs)
Mark	10	5	5	10	10	10
Mark Scored						
Initial						
Total Score						
Final Score						

<b>SECTION A [30 MARKS]</b> <b>ANSWER ALL QUESTION</b>	
<b>Question 1</b>	
<b>a) Direction: For multiple choice questions, there are four alternatives: A, B, C, and D. Choose the correct alternative and circle it. Do not circle more than ONE alternative. If there is more than one circled, NO score will be awarded.</b>	<b>[10]</b>
i. Tshewang is cleaning the floor, tools, and windows of his workshop. Which 5S is he practicing? A Set B Sort C Shine D Sustain	
ii. Which of the following brick bond has a low load-bearing capacity? A Header bond B English bond C Flemish bond D Stretcher bond	
iii. The line that runs parallel to any of the isometric axis is termed as A isometric line. B isometric plane. C non-isometric line. D non-isometric plane.	
iv. The benefits of stabilized earth block (SEB) is A appropriate identification of soil is required. B easy to construct the long building. C can be used again and again. D presence of organic matter.	
v. Which of the following brick bat is used in a header bond wall? A. $\frac{1}{2}$ B. $\frac{2}{3}$ C. $\frac{3}{4}$ D. $\frac{4}{5}$	

vi. Arranging and storing the items in the proper storage so that they can be seen, taken out, and returned to the optimal place is A set. B sort. C shine. D sustain.	
vii. The bond which consists of headers and stretchers in every course of the wall is known as A header bond. B English bond. C Flemish bond. D stretcher bond.	
viii. Carrying out periodic monitoring and maintenance of the machine is A job safety. B personal safety. C workshop safety. D equipment safety.	
ix. The United Nations universal declaration of human rights is enshrined the right to safety and health in A. 1956. B. 1962. C. 1950. D. 1948.	
x. The use of personal protective equipment (PPE) in the workplace is A job safety. B personal safety. C workshop safety. D equipment safety.	
<b>b) Write TRUE or FALSE for the following statements in the space provided against them.</b>	<b>[5]</b>
i. Topsoil and organic soils must be used for the construction.	
ii. Header bonds are suitable for load-bearing walls.	
iii. The solid area covers more than 50% in a hollow block.	
iv. There are three coordinate axes for isometric lines.	
v. Always lift the weight with a bent back.	

<b>c) Match each item under column A with the most appropriate item in column B. Write the correct responses against their premises in the space provided.</b>		<b>[5]</b>
<b>Column A</b>	<b>Column B</b>	
i. A fire caused by firewood.	a. 45°	
ii. Protects from inhaling dust.	b. Dust mask	
iii. A fire caused by flammable gases.	c. C	
iv. Protects from hazardous chemicals.	d. 30°	
v. The angle at which the isometric blocks are drawn.	e. A	
	f. Gas mask	
<b>Column A</b>	<b>Column B</b>	
i. A fire caused by firewood.		
ii. Protects from inhaling dust.		
iii. A fire caused by flammable gases.		
iv. Protects from hazardous chemicals.		
v. The angle at which the isometric blocks are drawn.		
<b>d) Fill in the blanks with an appropriate word(s).</b>		<b>[10]</b>
i. The soil size between $\emptyset$ 0.06 mm to 2 mm is termed as .....		
ii. A container filled with special chemicals used to spray over the fire to stop it from burning is called .....		
iii. The test which measures the relative amount of sand, silt and clay in the soil is .....		
iv. A wall constructed in an alternate course of headers and stretchers is called ..... wall.		
v. The three faces on the cube of an isometric block are called .....		
vi. The first header placed at the edges of header courses in the English bond is known as .....		
vii. Header bond wall has ..... capacity.		
viii. The process involved to discard or recycle the items at the workplace is .....		
ix. The bond in which all the headers are laid on the face of a wall is .....		
x. Queen closers are always placed next to .....		

**SECTION B (20 MARKS)**  
**ANSWER ALL QUESTIONS**

**Question 2**

i. State **TWO** applications of the Flemish bond wall.

[2]

ii. Provide **THREE** applications where the English bond wall is used.

[3]

iii. What is the purpose of placing a queen closer in Flemish bond wall?

[1]

iv. Why would people prefer constructing the English bond wall? Give **TWO** reasons.

[2]

v. Define safety precautions.

[1]

vi. What is the similarity in the English bond wall and the Flemish bond wall?

[1]

<b>Question 3</b>		
i. How a drop test is carried out? What will happen if the moisture content is less?		[2]
ii. Differentiate between solid concrete blocks and hollow concrete blocks.		[2]
<b>Solid concrete blocks</b>	<b>Hollow concrete blocks</b>	
iii. Explain the use of reinforcement bar while laying stabilized earth block wall.		[3]
iv. Reconstruct the given isometric block to the scale of 1:1. All the dimensions are in mm.		
<p>The diagram shows an isometric view of a stepped block. The front face has a total width of 74 mm, divided into three 18 mm segments and a 46 mm segment. The height of the block is 50 mm. The block has a stepped profile with a vertical face on the right side. A point 'A' is marked at the bottom center of the 46 mm segment.</p>		[3]

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