



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



ANNUAL EXAMINATION

Subject: Masonry

Class: XI

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) (Completion)	2. (SAQs)	3. (ERQs)
Mark	10	5	2.5	13	19.5
Mark Scored					
Initial					
Total Score					
Final Score					

SECTION A [17.5 MARKS] ANSWER ALL QUESTION	
Question 1	
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.	[10]
i. Which of the following component of the machine is used for holding the blade? A Handle B Switch lock C Adjusting nut D Mounting nut	
ii. Which view shows more features or characteristics of an object? A Top views B Rear views C Back views D Front views	
iii. A 38 mm gap is maintained while constructing confined masonry A for projection of brick/block/stone. B between two successive layers of the wall. C between the end of brick/block/stone to the stirrup. D between the end of brick/block/stone to the vertical main bar.	
iv. The seismic band is NOT suitable with A stone. B timber. C bamboo. D steel reinforcement.	
v. The minimum duration of the curing period is A 4 days. B 5 days. C 6 days. D 7 days.	
vi. Mortar joints are raked to a depth of A 10 mm to 20 mm. B 12 mm to 25 mm. C 15 mm to 30 mm. D 20 mm to 40 mm.	

<p>vii. Which of the following is NOT shown in the plan?</p> <p>A Foundation details B Location of rooms C Location of openings D Thickness of the external wall</p>	
<p>viii. The gap around the reinforcement bar is maintained to ensure the passage of concrete in the foundation at</p> <p>A 20 mm. B 30 mm. C 40 mm. D 50 mm.</p>	
<p>ix. When the stones are soaked in the water for 24 hours, they should not absorb water more than</p> <p>A 5%. B 10%. C 15%. D 20%.</p>	
<p>x. The concrete ratio of M20 used in the seismic band is</p> <p>A 1:1:2. B 1:1.5:3. C 1:2:4. D 1:3:6.</p>	
<p>b) Write TRUE or FALSE for the following statements in the space provided against them.</p>	[5]
<p>i. 1:2 is an example of an enlarged scale.</p>	
<p>ii. Sandstone is mainly composed of clay.</p>	
<p>iii. The image of the object is projected on the sides of the box in the glass box method.</p>	
<p>iv. Struck pointing is maintained at an angle of 90°.</p>	
<p>v. Water is used to remove the slurry while cutting stones.</p>	

c) Fill in the blanks with an appropriate word(s).		[2.5]
i.	In first angle projection, the object is imagined to be in the quadrant.	
ii.	A type of construction drawing which provides a complete view of the structures involved in the building project is drawing.	
iii.	A type of technical drawing that describes the location and details of electrical wiring, fixtures, lighting, and power is drawing.	
iv.	A type of technical drawing which shows the finishing details and appearance of the building is drawing.	
v.	A type of drawing that gives a complete view of a building that describes the location of a building is drawing.	
SECTION B (32.5 MARKS) ANSWER ALL QUESTIONS		
Question 2		
i.	What is the function of carbon?	[1]
ii.	Make a comparison between the confined masonry and reinforced concrete framed construction. Write FOUR differences.	[4]
	Confined masonry	Reinforced concrete framed construction
iii.	What are the THREE advantages of pointing over plastering?	[3]

iv. Differentiate between manual and mechanical dressing. State THREE each.		[3]
Manual dressing	Mechanical dressing	
v. Provide TWO purposes of the seismic band.		[2]
Question 3		
i. Define confined masonry. Provide THREE purposes of the confined masonry.		[4]
ii. List any THREE types of pointing		[1.5]
iii. What are the FIVE structural components provided in a confined masonry building?		[2.5]

iv. What is concrete? How it is mixed? Which is more effective?	[3]
v. Mention FOUR good qualities of stone.	[4]
vi. What is clear cover? Why is it provided? Give TWO points.	[3]
vii. State THREE factors on which the stone is selected for stone masonry.	[1.5]