

**CHRISTIAN SOCIAL SERVICES COMMISSION (CSSC)**  
**NOTHERN ZONE JOINT EXAMINATION SYNDICATE (NZJES) 2024**  
**FORM FOUR PRE-NATIONAL EXAMINATION**  
**ARCHITECTURAL DRAUGHTING**

**CODE 072**

**TIME: 3:00 HOURS**

**INSTRUCTIONS**

- **This paper consists of sections A, B and C with the total of eight (8) questions**
- **Answer all questions in sections A, B and C**
- **Use blue or black pen in writing and pencil in sketches and drawings**
- **Drawing must be prepared in in A3 standard paper format.**
- **Calculator, communication devices and any unauthorized materials are not allowed in the examination room**
- **Write you examination number on every page of your answer booklet(s)**

**SECTION A (15 marks)**

1. For each of the following items i-x, choose the most correct answer from among the given alternatives

i. Suppose you are preparing a set of working drawing for the building. Which drawing will you create first?

A). Foundation plan

C). Floor plan

B). Site plan

D). Elevations

ii. A contractor is required to purchase materials for the execution of the construction project. Which contract document will give the standard of the materials?

A). Bills of quantity

C). Specifications

B). Drawings

D). Condition of contract

iii. Which of the following is not preliminary considered for the foundation of a single-story building?

A). Bearing capacity of the soil

C). Settlement control

B). Ground water condition

D). Soil organism

iv. The vertical dimensions are mostly taken from the

- A). Building plan
- B). Floor plan
- C). Roof truss section
- D). Cross-section

v. For the normal standard dwelling house which is correct measurement from the floor level up to the window sill?

- A). 0.8-2.0m
- B). 0.8-1.2m
- C). 1.0-1.2m
- D). 0.8-1.0m

vi. In drawing room the most common furniture to perform design and working drawing is...

- A). Office chair
- B). Table chair
- C). Drawing table
- D). Drawing board

vii. The components or instruments which are very important for checking angles are known as

- A). Compasses
- B). Dividers
- C). Protectors
- D). Tracing ruler

viii. When designing and drawing the building plan large objects are drawn in a small papers and small objects are drawn in a large paper. Which instrument is used to perform drawings required

- A). A3 papers
- B). Ruler
- C). Sets square
- D). Scale ruler

ix. Architectural draughting can be performed by manual draughting or by computer (Arch.CAD). What is the importance of computer?

- A). Modern method
- B). Special method
- C). Fast and accurate
- D). Accurate and colored

x. The common scale used in drawing floor plan is

- A). 1:20
- B). 1:200
- C). 1:100
- D). 1:500

2. Match the explanation of the terminology in LIST A with the responses terminology in LIST B by writing the letter of the correct response beside the number

LIST A	LIST B
(i) The member spans between wall plate and ridge board to form pitch	A). Valley rafter
(ii) The rafter reduced in their length to intersect the hip or valley rafters	B). Purlin
(iii) The horizontal member to which the feet of rafter are fixed	C). Wall plate
(iv) Is the horizontal member supporting common rafters	D). Strut
(v) Is the inclined member at the internal angle where the roof surface meet	E). Jack rafter
	F). King post
	G). Common rafter

### SECTION B (55 marks)

**Answer all questions in this section**

3. a). With the aid of a sketch, describe three types of drainage system layout which can be used with any urban or rural area in Tanzania

(b). Nowadays computer is mostly used in the field of Engineering, in Architectural draughting. Explain two (2) importance of using computer Arc. CAD

4. a). You as a draftsman or clerk office worker in the site prepare the following details by the scale 1:50

i). A plan of swing door opening with shutter

ii). A plan of corner window

5. Drawing and designs are all the process of constructing the building plan in the drawing sheet. Explain the different between design and working drawing

6. a). Give two differences between first angle projection and third angle projection

b). Perspective drawing is applied in the building plan so as to see the real house shown from certain angle. What are the two importance of drawing perspective on building plan sheets?

7. With the aid of ruler and compasses draw the following angles

(i).  $60^{\circ}$ .

(iv).  $45^{\circ}$

(ii).  $30^{\circ}$

(v).  $22\frac{1}{2}^{\circ}$

(iii).  $15^{\circ}$

**SECTION C (30marks)**

8. a). You are required to make and draw the panel doors with the following specifications:

(i). Door opening measures 900mm x 2400mm

(ii). The size of the door shutter measure is 800mm x 2100mm

(iii). Sections of members the door frames measures 50mm x 150mm with rebate 50mm x25mm

(b). Explain three uses of flush door in building of any type you choose

(c). By the neat sketch show the elevations of the following

(i). Roof truss of pitch roof (single roof)

(ii). Colar roof

(iii). Closed couple roof

(iv). Lean to roof

(v). Double roof

**MARKING SCHEME CSSC – 2024**  
**ARCHITECTURAL DRAUGHTING**  
**FORM FOUR PRE- NATIONAL EXAMINATION**

**SECTION A (15 marks)**

01.

i)	ii)	iii)	iv)	v)	vi)	vii)	viii)	ix)	x)
B	A	D	D	D	B	C	D	C	C

**01@ = 10 marks**

02.

i)	ii)	iii)	iv)	v)
G	E	C	B	A

**01@ = 05 marks**

**SECTION B ( 55marks)**

**03. (a)**

i. Combined system

ii. Partially combined system

iii. Separate system. **(06 marks)**

**(b)**

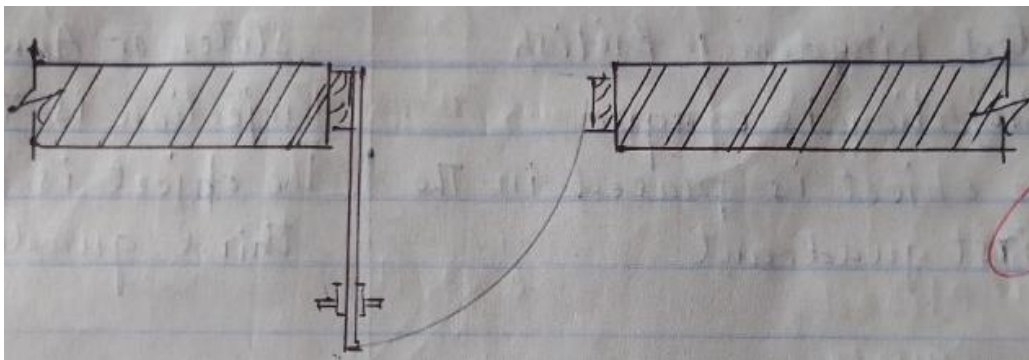
i. Accuracy of drawing and measurements

ii. Fast or quick

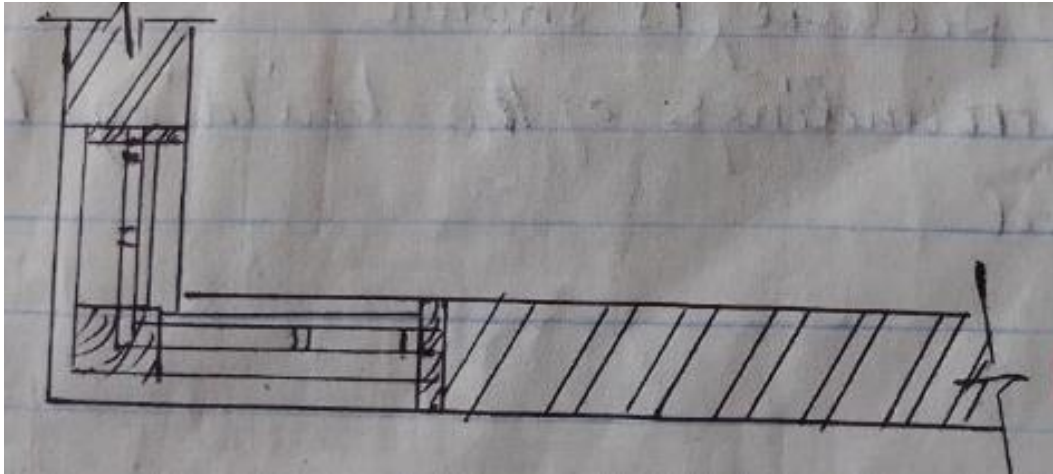
iii. Data storage. **(04 marks)**

**05.**

**(a) Swing door plan (05 marks)**



**(b) Corner window. (05 marks)**



**05. Designing:** Is the first stage when the idea of the particular project is brought to the paper in sketches. **(05 marks)** **While Working drawing:** Is the second stage of drawing the real object or project by means of real measurements and right scale. **(05 marks)**

06. (a) The differences between first angle projection and third angle projection

No	FIRST ANGLE PROJECTION	THIRD ANGLE PROJECTION
1.	Front view is at the top of the horizontal axis	Front view is at the bottom of the horizontal axis
2.	Top view is at the bottom of the horizontal axis	Top view (plan) is at the top of horizontal axis
3.	Right view is at left of vertical axis	Right view is at right of vertical axis
4.	Left view is at the right side of vertical axis	Left view is at the left side of vertical axis
5.	It is widely used in United Kingdom or British	It is widely used in united states or American system
6.	Projection is opaque	Projection is transparent
7.	The object is placed in the first quadrant	The object is placed in the third quadrant

**(1.5 @ marks**

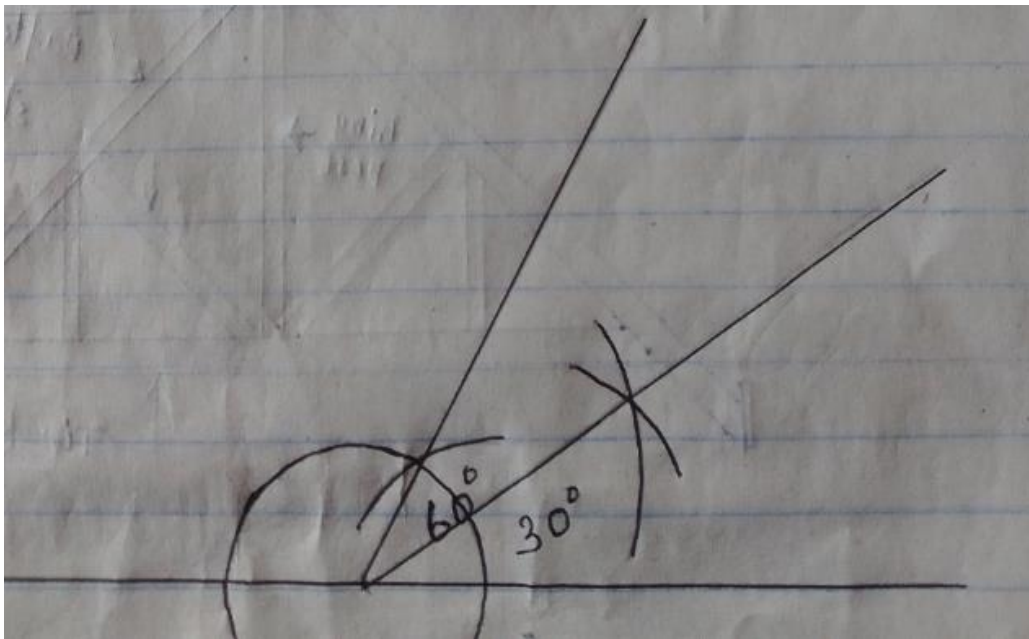
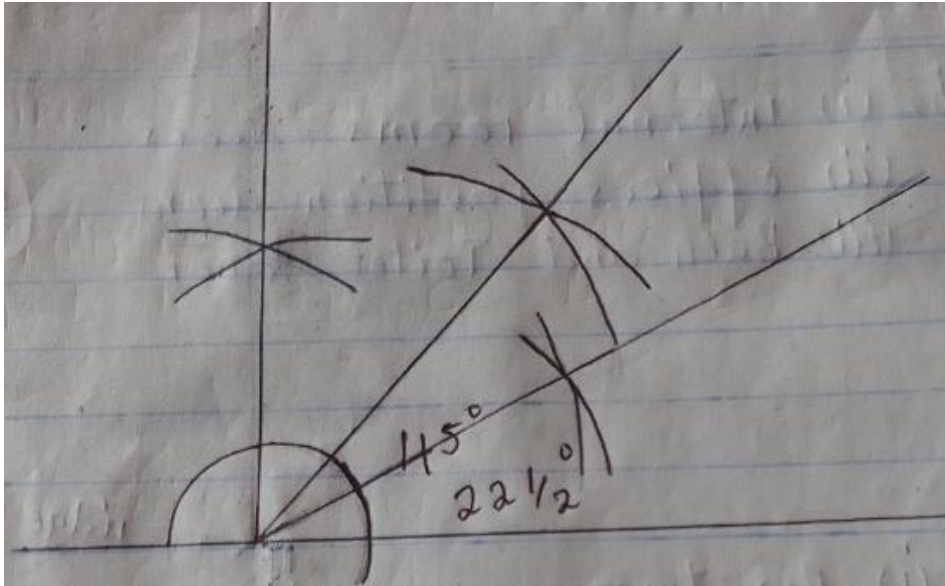
(b)

i. The real picture of an object

ii. the surroundings of the building land scape is viewed

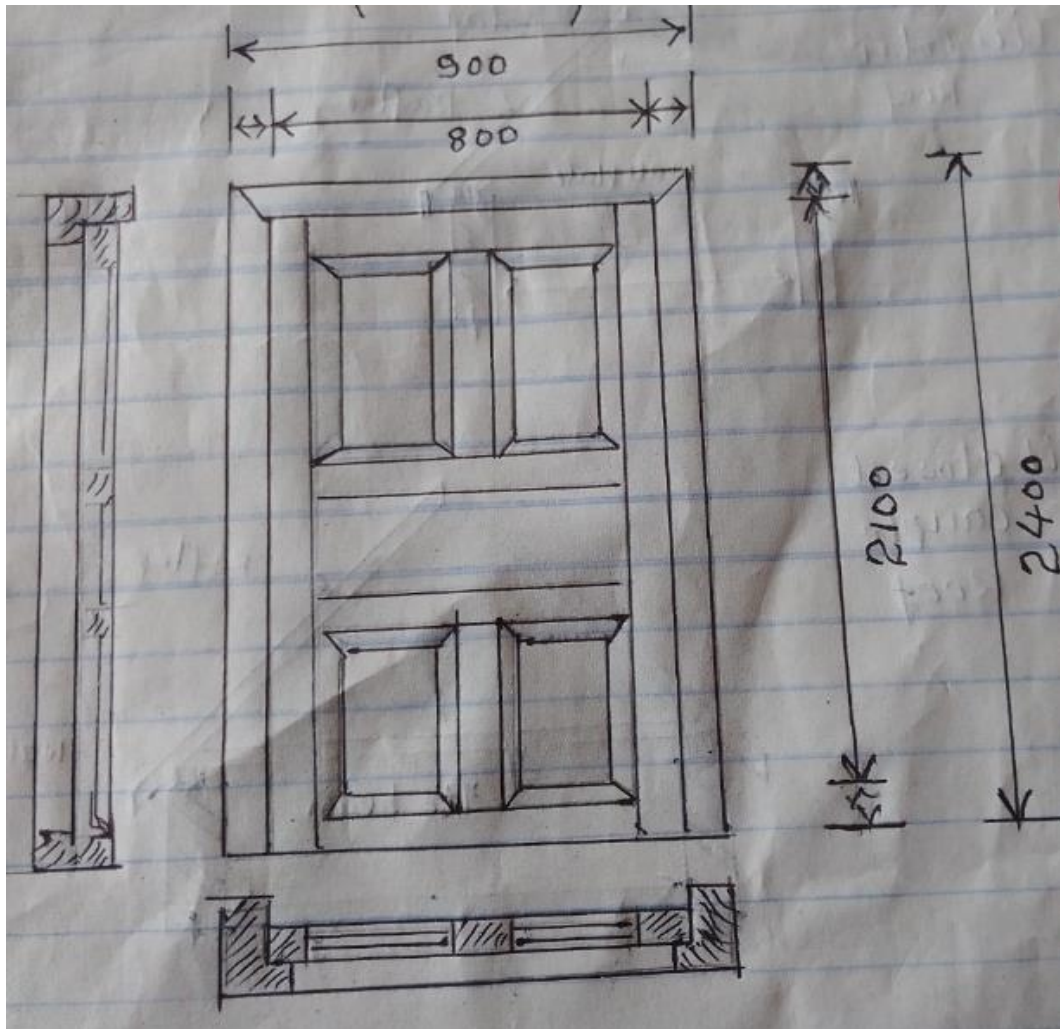
**(02@ = 04 marks)**

07.



(02@ = 10 marks)

08. (a)



(12 marks)

(b)

i. Internal room doors

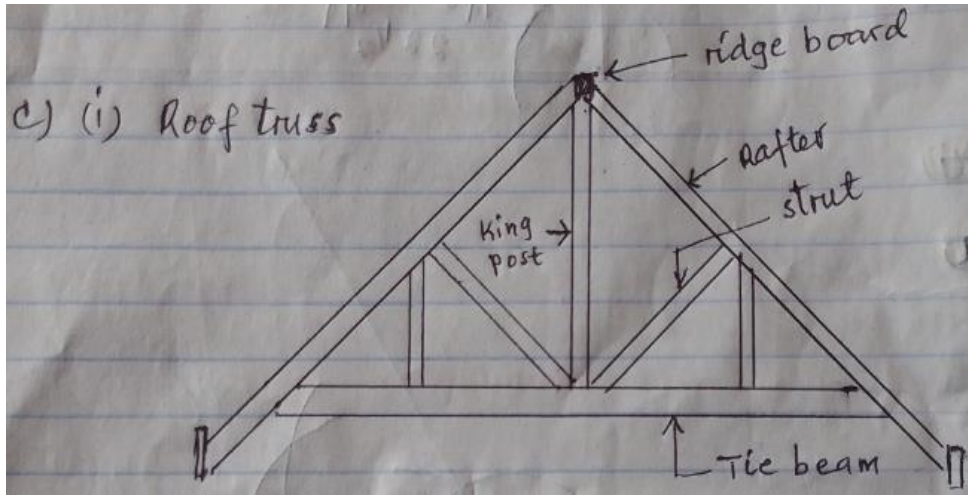
ii. Offices partition doors

iii. Bath and toilet doors

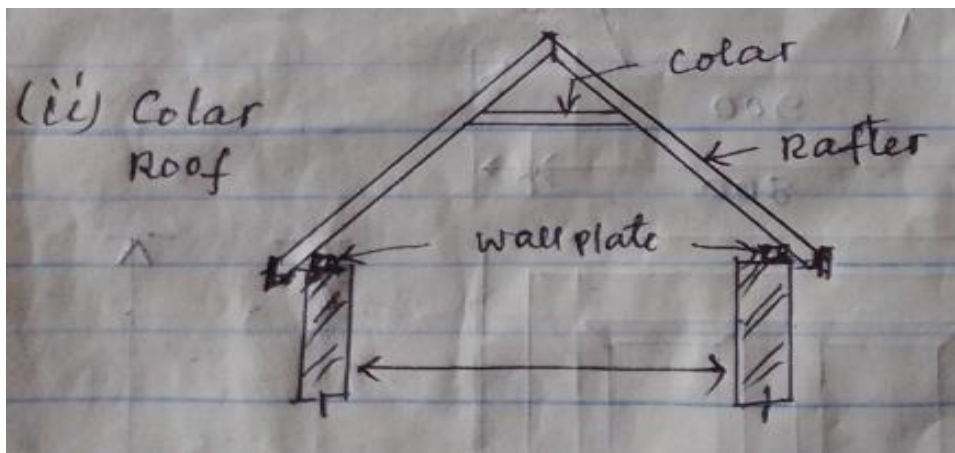
(01@ = 03 marks)



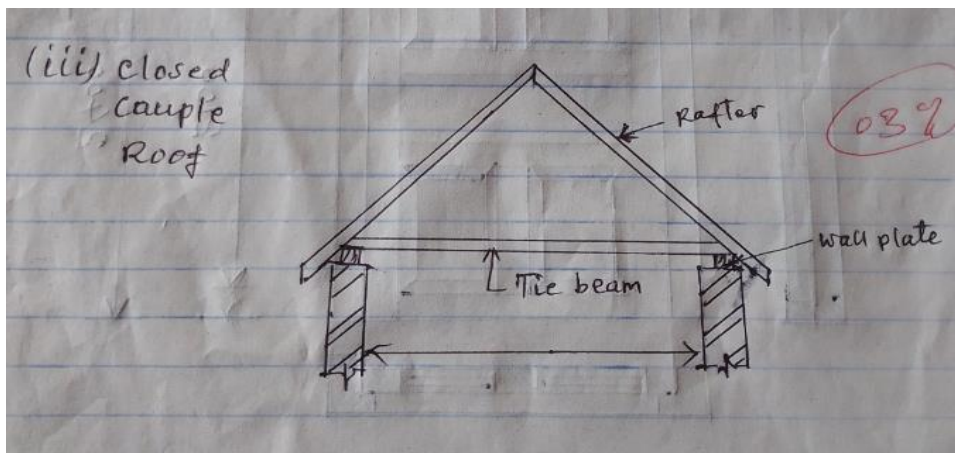
(c). (i)



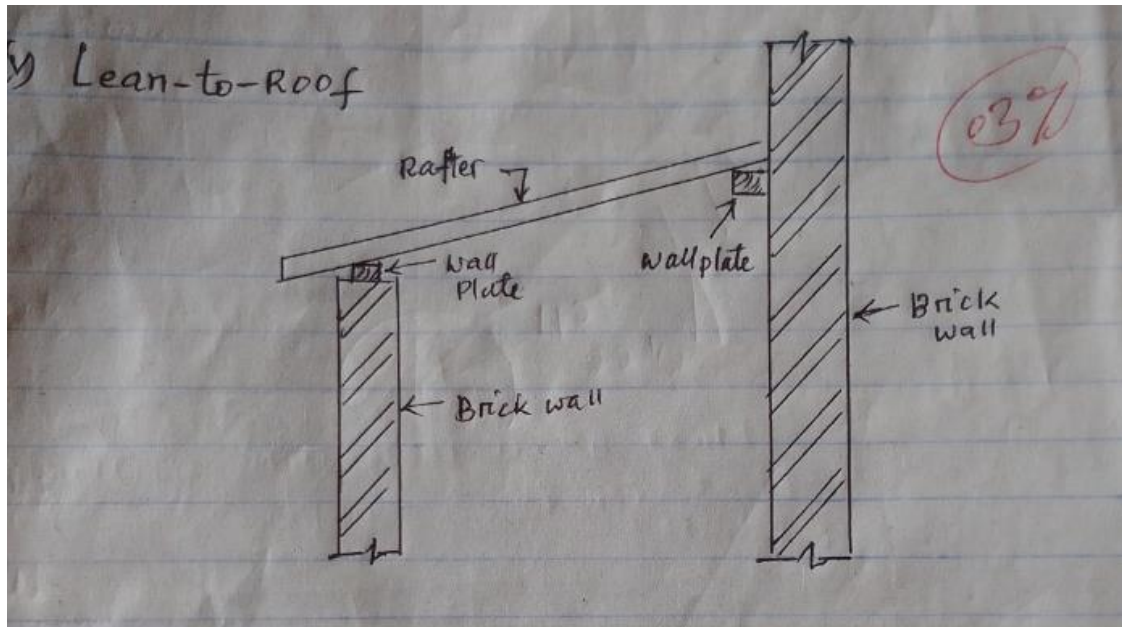
ii.



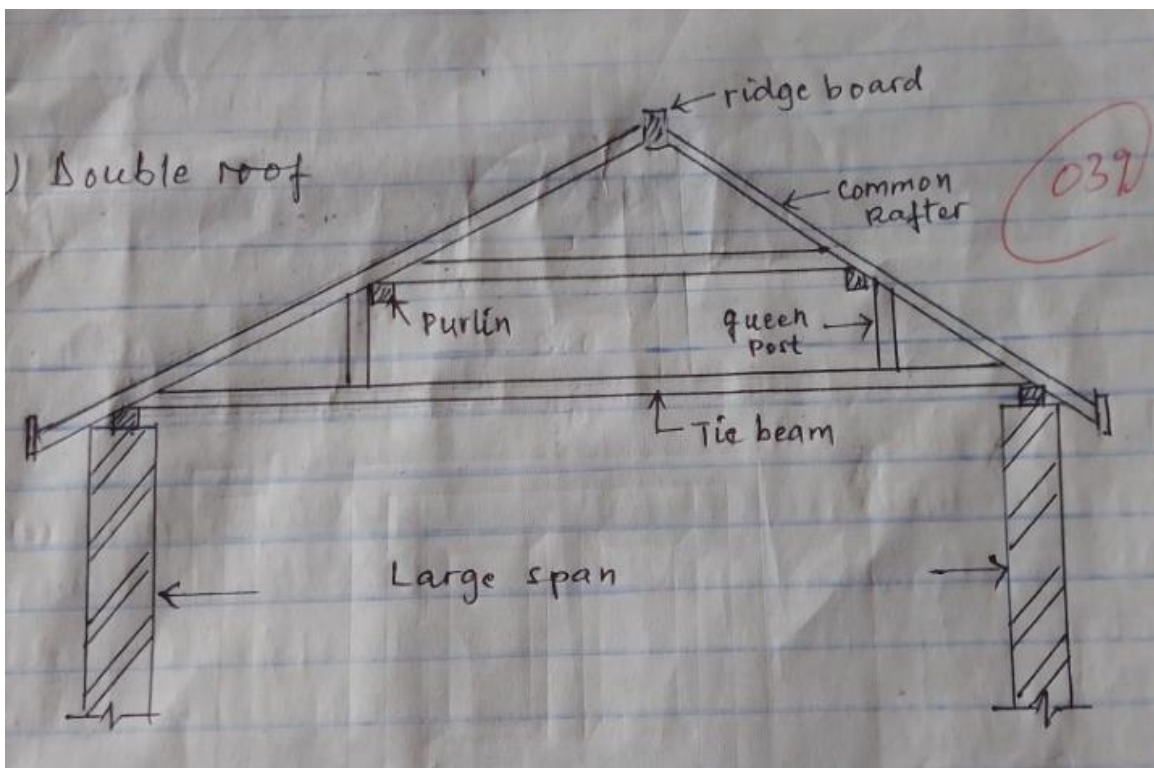
iii.



iv.



v.



(03 @ = 15 marks)

