



PROGRAM : NATIONAL DIPLOMA
ENGINEERING: BUILDING

SUBJECT : **CONSTRUCTION TECHNOLOGY 1B**

CODE : **FCOT11B**

DATE : NOVEMBER EXAMINATION
15th of November 2017

DURATION : (SESSION 2) 12:30-15:30

WEIGHT : 40: 60

TOTAL MARKS : 70

ASSESSOR : MR O.A BALOGUN

MODERATOR : MRS. K.E.M MOGODI

NUMBER OF PAGES : PAGES 3

INSTRUCTIONS : ANSWER THE QUESTIONS IN SEQUENCE;
ALL DRAWINGS MUST BE WELL ANNOTATED; USE
A **PENCIL** TO DRAW

REQUIREMENTS : ONE ANSWER SHEET PER STUDENT
A3 DRAWING SHEET

INSTRUCTIONS : TO STUDENTS PLEASE ANSWER ALL QUESTIONS IN SEQUENCE

QUESTION 1

Draw an **elevation of a mono-pitched roof of 5500mm span** with a 450mm eaves overhang, to a scale 1:20.

- The truss is built halfway into a one - brick wall and rests on a one-brick pier at the other end.
- The slope of the rafters is 15°.
- The size of the main truss members is 152mm x 38mm, and the size of the web members is 114mm x 38mm.
- 114mm x 38mm wall plate.
- Slate packing is used to support the roof truss at the wall.
- Do not draw in the mortar joints of the walls, simply hatch the face bricks.
- The truss members are joined together by means of nail plates.
- No battens, roof covering or rainwater goods need be shown.

Annotate fully and print the full title (highlighted in the first sentence of this question) and scale, centrally below the drawing, in 5mm high letters and numerals. (30)

QUESTION 2

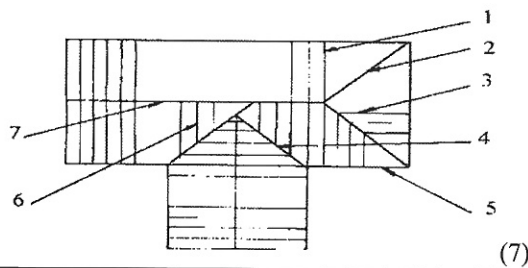
2.1 State any five **Building Regulations** that **MUST** observed when roof trusses are erected (5)

2.2 As construction managers to be, you need to check all aspects of roof construction. This begins at the acceptance, storage, handling and erection of trusses. **State** any nine procedures to be observe during erection of roof trusses? (9)

[14]

QUESTION 3

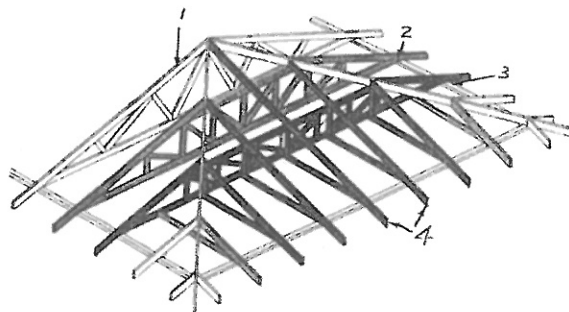
Write the number of the marked members of the hip and valley roof as well as the name of the applicable member next to the number.



(7)

QUESTION 4

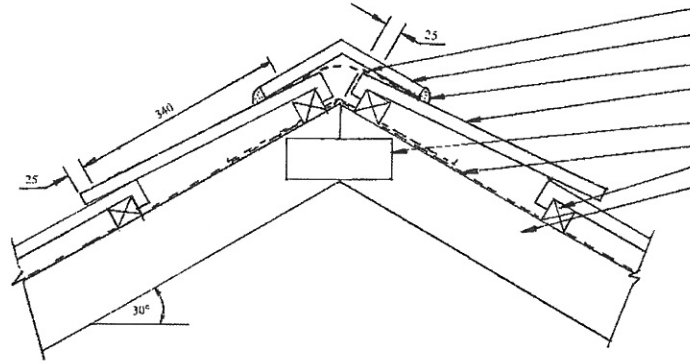
Write the number of the marked members of a hip roof and the name of the applicable member next to the number.



(4)

QUESTION 5

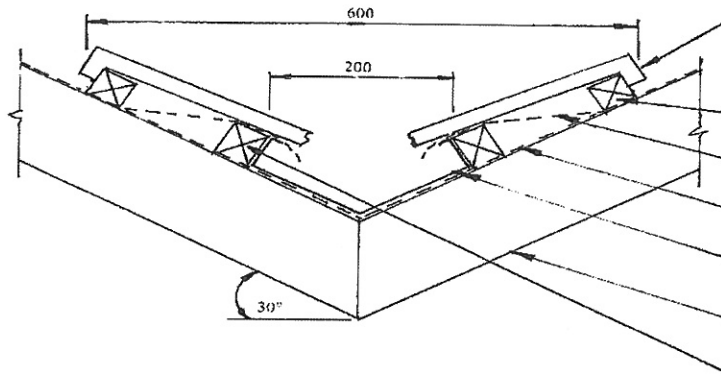
Write the number of the marked members pointing with the arrow-head on the object/drawing below. The arrows-head pointed from the top e.g. the top is (1 and last arrow head is 8) meaning 1 to 8 in term of numbering



(8)

QUESTION 6

Write the number of the marked members pointing with the arrow-head on the object/drawing below. The arrows-head pointed from the top e.g. the top is (1 and last arrow head is 7) meaning 1 to 7 in term of numbering



(7)