

**UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES**

**BACHELOR'S DEGREE IN ENVIRONMENTAL
HEALTH SCIENCES**

SUPPLEMENTARY EXAMINATION PAPER JULY 2013

TITLE OF PAPER : BUILDING CONSTRUCTION
TECHNOLOGY I

COURSE CODE : EHM 201

DURATION : 2 HOURS

MARKS : 100

INSTRUCTIONS : ANSWER ANY FOUR QUESTIONS

: EACH QUESTION CARRIES 25 MARKS

: NO PAPER SHOULD BE BROUGHT INTO, NOR
OUT OF THE EXAMINATION ROOM

: BEGIN EACH QUESTION ON A SEPARATE
SHEET OF PAPER

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS
GRANTED BY THE INVIGILATOR

QUESTION ONE

- (A) Three operations are necessary once a contractor takes over a site. Name them. [6]
- (B) What do you understand by a Batch Plant? State batching types and state where on a construction site you would recommend putting a batch plant. [4]
- (C) One of the most important site considerations is the whole question of Safety and Health. Discuss this consideration and also list the applicable regulations in Swaziland. [10]

QUESTION TWO

- (a) Thermal Comfort is one of the requirements that must be fulfilled by any building. Describe five factors that must be taken into consideration to meet this requirement [10]
- (b) Give three reasons why it is essential to strip the vegetable top soil prior to the construction operation? [3]
- (c)
- (i) What are hoardings [1]
 - (ii) Where do you normally require the use of hoardings? [1]
 - (iii) What are the three qualities for hoardings? [3]
 - (iv) Outline the procedures involved in the process of putting in Hoardings [2]

QUESTION THREE

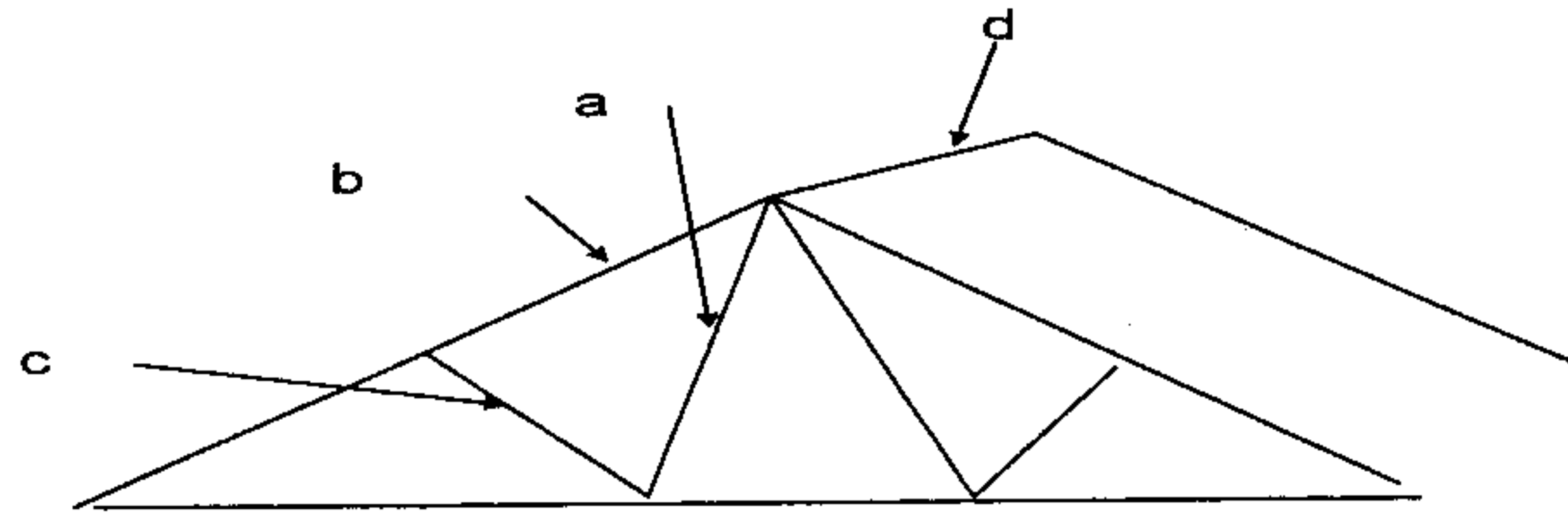
- (a) The following represents some important brickwork terminology: Tothing, wall joint, bed joint, stretcher course, header course, raking back, cross joint and quoin. Choose five and draw sketches to demonstrate understanding of this terminology [10]
- (b) Distinguish between wall and roof functions in a building [10]
- (c) Outline the block laying rules in footings [5]

QUESTION FOUR

- (a) Identify at least five main actors in a typical building project and state their roles [5]
- (b) Raise nine points on causes, impacts and possible remedies of dampness in a building [9]
- (c) Describe the methodology used in assessing how different building construction operations and use of different materials influence the environment [10]
- (d) Describe the role of an Environmental Health Officer in Building construction [1]

QUESTION FIVE

(a) Label the roof structure below [4]



(b) What qualities does a roofing technician look for in roofing covering materials? [6]

(c) Discuss the role played by paint in a house and give at least five alternatives to painting [10]

(d) What are problems associated with timber roofs [5]
