

KOLEJ UNIVERSITI TUNKU ABDUL RAHMAN

CENTRE FOR PRE-UNIVERSITY STUDIES

ACADEMIC YEAR 2020/2021

AUGUST EXAMINATION

FPBE1074 FUNDAMENTALS OF BUILDING CONSTRUCTION

WEDNESDAY, 02 SEPTEMBER 2020
HOURS)

TIME: 2.00 PM = 4.00 PM (2

FOUNDATION IN ARTS

Instructions to candidates:

1. Answer ALL questions in the format/ template requested or provided.
2. Include your FULL NAME, STUDENT ID, PROGRAMME OF STUDY and SEMESTER in your answer submission.
3. This is an open book final online assessment; but you MUST NOT receive any help whatsoever from any other person.
4. Read all the questions carefully and understand what you are being asked to answer.
5. Marks are awarded for your own (original) analysis. Therefore, use the time and information to build well-constructed, concise, accurate and thoughtful answers with supporting explanations and justifications.
6. You must submit your answer within the time frame allowed for this online assessment. The deadline for the submission of your answers is **half an hour** from the end time of this online assessment.
7. Penalty as below **WILL BE IMPOSED** on students who submit their answers late as follows:
 - i) The final marks of this online assessment will be reduced by 10 marks for answer scripts that are submitted within 30 minutes after the deadline for the submission of answers for this online assessment.
 - ii) The final marks of this online assessment will be downgraded to zero (0) mark for any answer scripts that are submitted after one hour from the end time of this online assessment.
8. Any late submission after the stipulated time frame or no submission, are deemed to be failure of the online assessment. [Note: For candidates facing problems to submit the online assessment, please email to cpus@tare.edu.my **within 48 hours** of the online assessment to apply for "I" indicator under Extenuating Mitigating Circumstances (EMC) situation. Attach your email with supporting documents and EMC form which can be obtained from your student intranet.]
9. Students are required to complete the declaration section before submission of your answer.

STUDENT'S DECLARATION OF ORIGINALITY

By submitting this online assessment, I declare that this submitted work is free from all forms of plagiarism and for all intents and purposes is my own properly derived work. I understand that I have to bear the consequences if I fail to do so.

Instructions to candidates:

1. This question paper consists of **FOUR** questions.
2. Type your answer below the question in **Bold and red**
3. Remember to save your file under your name and submit to me using google classroom and my email (sgkn2015@gmail.com)
4. Answer **ALL** questions.

FPBE1074 FUNDAMENTALS OF BUILDING CONSTRUCTION

Answer **ALL** questions.

Question 1

Wall is a required component of the buildings. It can be built with any type of material like clay or cement brick, timber or concrete.

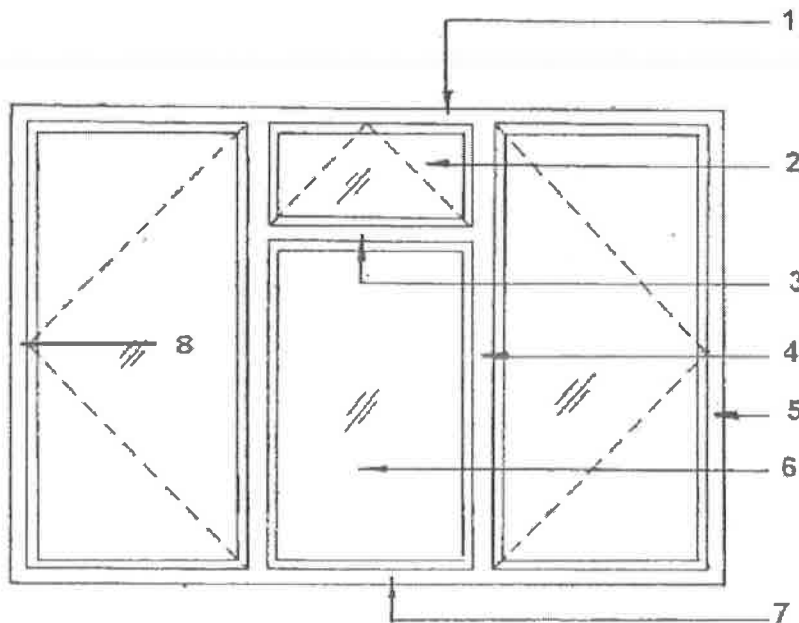
- a) State **FIVE (5)** problems encountered if your houses do not have walls. (10 marks)
- b) Sketch the front elevation of a Flemish Bond wall of four courses high and four bricks long with toothing at both end. (15 marks)

[Total: 25 marks]

Question 2

Windows are component required in building bye-law for ventilation and natural sunlight. They also serve as opening to the outside view and means of escape during occurrence of fire. Modern windows are usually glazed or covered in some other transparent or translucent material.

- a) List **FIVE (5)** benefits of using UPVC and glass casement window. (10 marks)
- b) The diagram below shows the front elevation of a casement window. Name the following parts as indicated by number. (15 marks)



[Total:25 marks]

FPBE1074 FUNDAMENTALS OF BUILDING CONSTRUCTION**Question 3**

A door is a screen used to seal an opening into a building or between rooms within a building. It can be made of timber, glass, metal, plastic or any combination of these materials.

- a) Describe **FIVE (5)** functional requirement of external door. (10 marks)
- b) Sketch in pictorial view, side hung and double swing of the following door:
- (i) One with single leaf
 - (ii) Another with double leaf

(15 marks)

[Total:25 marks]

Question 4

Normally stair should be constructed to provide ready, easy, comfortable and safe access up and down with steps that are neither laborious nor difficult to climb within a compact area, so as not to take up excessive floor area.

- a) Explain briefly the flight of stair. (10 marks)
- b) Sketch the plan view of the following stair:
- (i) Half turn
 - (ii) Open well
 - (iii) Straight flight

(15 marks)

[Total: 25 marks]