

POLITEKNIK
Jabatan Pengajian Politeknik

EXAMINATION AND EVALUATION DIVISION
DEPARTMENT OF POLYTECHNIC EDUCATION
(MINISTRY OF HIGHER EDUCATION)

CIVIL ENGINEERING DEPARTMENT

FINAL EXAMINATION
JUNE 2012 SESSION

CC102 : CONSTRUCTION MATERIALS & APPLICATION

DATE : 20 NOVEMBER 2012
DURATION : 2 HOURS (11.15 AM – 1.15 PM)

This paper consists of **SEVEN (7)** pages including the front page.
Section A: Structure(10 questions – answer all)
Section B : Essay (4 questions – answer 3 questions only)

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DO NOT OPEN THIS QUESTION PAPER UNTIL INSTRUCTED BY THE CHIEF
INVIGILATOR

(The CLO stated is for reference only.)

SECTION A

SUBJECTIVE (40 marks)

INSTRUCTIONS:

This section consists of **TEN (10)** short questions. Answer **ALL** the questions in the answer booklet.

1. Explain the purpose of drying wood?

[CLO1 : C1]
(4 marks)

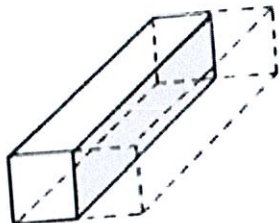
2. Shellac is one of the finishes materials for furniture. Name the materials used as solvents for shellac?

[CLO1 : C1]
(4 marks)

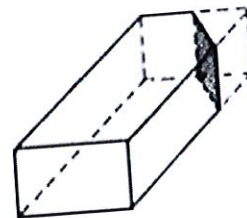
3. Define types of cut bricks below.

[CLO1 : C1]

(a)



(b)



(4 marks)

4. State **FOUR (4)** usages of copper in the construction industry. [CLO1 : C1]
(4 marks)
5. Steel weld consists of fillet weld and butt weld. Sketch the diagram for both.
[CLO1 : C1]
(4 marks)
6. List down **FOUR (4)** types of non-steel materials in construction: [CLO1 : C1]
(4 marks)
7. List down **TWO (2)** uses of asphalt.
[CLO1 : C1]
(4 marks)
8. List **FOUR (4)** types of ceiling finishes
[CLO1 : C1]
(4 marks)

9. Label parts of flush door as shown in Figure 1 below.

[CLO1 :C1]

(4 marks)

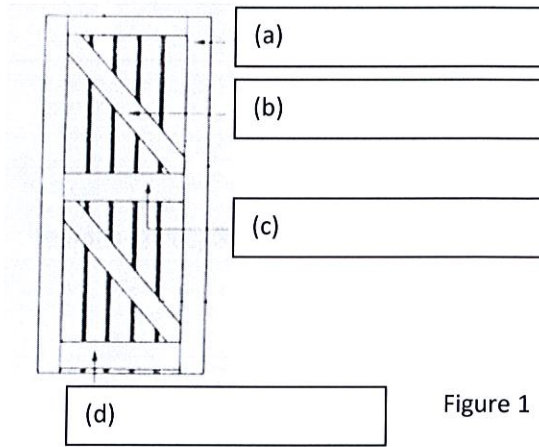


Figure 1

10. State **FOUR (4)** correct procedures of waste management on site.

[CLO4 : C1]

(4 marks)

SECTION B**ESSAY QUESTION (60 marks)****INSTRUCTION:**

This section consists of **FOUR (4)** essay questions. Answer **THREE (3)** questions.

QUESTION 1

- (a) There are many types of timber in Malaysia. Name **FIVE (5)** timber that are classified as heavy hardwood (Grade A) . [CLO 1 : C1]
(5 marks)
- (b) There are two methods of drying of timber. State **FOUR (4)** differences of natural drying and tenor drying. [CLO 1 : C1]
(6 marks)
- (c) Explain **SIX (6)** purposes of timber drying [CLO 1 : C1]
(9 marks)

QUESTION 2

(a) Explain the following terms

- i. Pig iron
- ii. Cast iron
- iii. Wrought iron

[CLO 1 : C1]

(15 marks)

(b) Describe the use of non-ferrous materials below.

- i. Aluminium
- ii. Bronze

[CLO 1 : C1]

(5 marks)

QUESTION 3

(a) Name **THREE (3)** types of main door.

[CLO 1 : C1]

(3 marks)

(b) List **FOUR (4)** functions of wall.

[CLO 1 : C1]

(8 marks)

(c) Explain **THREE (3)** factors which influence the selection of roof.

[CLO 1 : C1]

(9 marks)

QUESTION 4

- (a) Briefly define the Green Technology [CLO 4 : C1]
(11 marks)
- (b) State **FOUR (4)** Pillars of Green Technology [CLO 4 : C1]
(4 Marks)
- (c) List **FIVE (5)** Strategic Thrust of Green Technology [CLO 4 : C1]
(5 Marks)