



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION

MAY/JUNE 2014 EXAMINATION

PROGRAMME: BED FOUNDATION PHASE
MODULE: MATHEMATICS FOR FOUNDATION PHASE 2A
CODE: MFP10A2
TIME: 3 HOURS
MARKS: 100
EXAMINERS: DR. K. LUNETA
MODERATORS: DR. P. J. MAKONYE

(This paper consists of 3 pages)

INSTRUCTIONS:

Read each question carefully before answering it. Answer all the questions.
Questions can be answered in any sequence but ensure that you clearly number
your answers. Calculators are not allowed.

QUESTION 1

Define the following terms

- i. Draw a line, a ray and a line segment (3)
- ii. Draw any shape and show its line of symmetry (3)
- iii. Draw any shape and show its plane symmetry, label the edge, vertex and a face (6)
- iv. Draw a net a triangular pyramid and a triangular prism (5)
- v. Other than a rhombus name and draw 5 different quadrilateral shapes (5)

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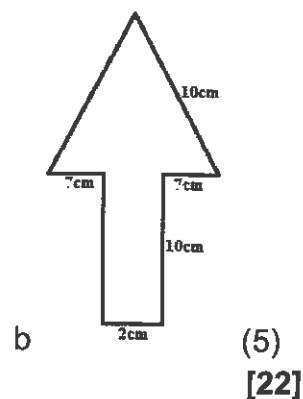
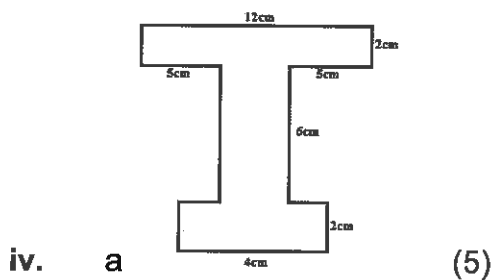
QUESTION 2

- i. What is a polygon? (1)
- ii. Name 10 different types of polygons other than a rhombus. (10)
- iii. What is a polyhedron? (1)
- iv. Name 10 different types of polyhedrons (10)
- v. State 6 properties of a rhombus (6)

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QUESTION 3

- i. Find the total surface area of a cylinder whose radius is 7 cm and the height is 40 cm and it is closed on both sides. (7)
- ii. Find the total surface area of regular pentagon prism with dimensions 20 cm by 100 cm if it is open on both sides. (5)
- iii. Find the perimeter and the areas of the shapes below



QUESTION 4

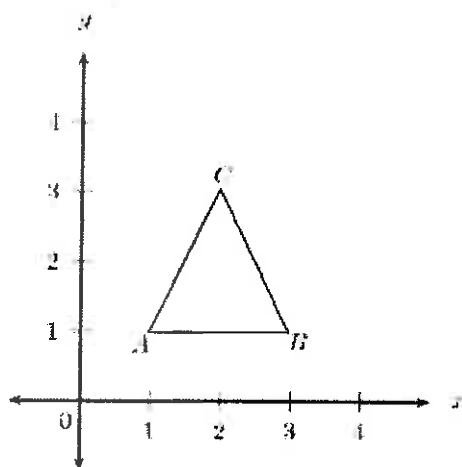
- I. What is a tessellation? (2)
- II. Draw a tessellation made up of a triangle (3)
- III. What do you understand by the terms rigid and non rigid transformations, provide an example of each? (5)

[10]

QUESTION 5

Given the figure ABC

- i. Draw its image when translated 2 units to the left and 2 units down (5)
- ii. Draw its image when reflected in the y-axis (5)
- iii. Draw its image when rotated about the origin through 60° anti-clockwise (8)



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