



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE CHEMICAL PLANT OPERATION N5

(8050015)

**9 April 2020 (X-paper)
09:00–12:00**

Calculators may be used.

This question paper consists of 5 pages and 1 addendum.

187Q1A2009

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
CHEMICAL PLANT OPERATION N5
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
 2. Read all the questions carefully.
 3. Number the answers according to the numbering system used in this question paper.
 4. Sketches must be large, neat and fully labelled.
 5. Write neatly and legibly.
-

QUESTION 1


Give a word or term for each of the following descriptions. Write only the answer next to the question number (1.1–1.5) in the ANSWER BOOK.

- 1.1 The form or manifestation of energy that flows from one object or system to another under the influence of temperature difference
- 1.2 Amount of heat required to raise the temperature of one gram of water from 14,5 °C to 15,5 °C
- 1.3 Operation in which conditions within the process or system do not change with time, that is, from one moment to another
- 1.4 It refers to the difference in energy between the products of the reaction and the reactants
- 1.5 A mixer that is used for dry powders and thin pastes

(5 × 1)

[5]**QUESTION 2**

Choose a description from COLUMN B that matches an item in COLUMN A. Write only the letter (A–F) next to the question number (2.1–2.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
2.1	Steam turbine	A	cyclone
2.2	Vaporising burner 	B	used for dense solids in liquids and heavy dry powders
2.3	Centrifugal separator	C	nozzle and blades
2.4	Tumbling mixer	D	cigarette lighters
2.5	Banbury	E	used for dry powders and thin pastes
		F	used for heavy, stiff or gummy materials

(5 × 1)

[5]