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higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T10(E)(J7)T
JUNE 2011

NON-NATIONAL CERTIFICATE: ENGINEERING CERTIFICATE OF
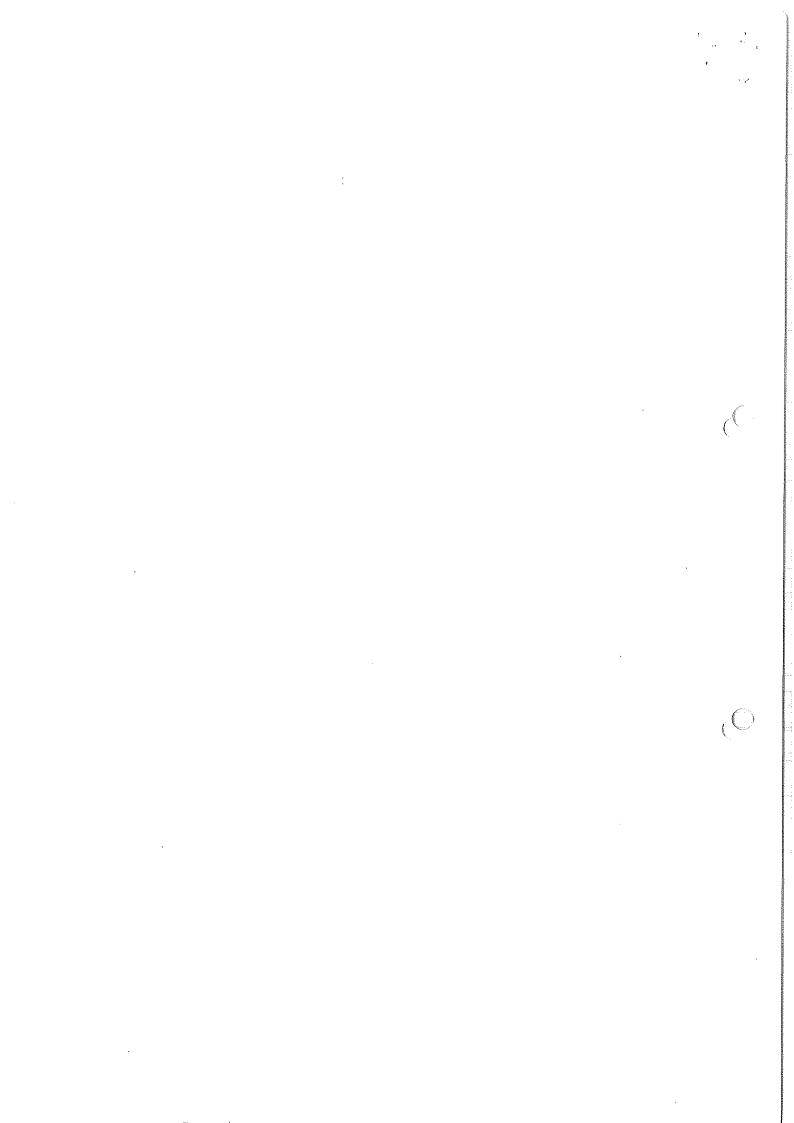COMPETENCY

LEGAL KNOWLEDGE: MINES

(13050026)

7 June (X-Paper)
09:00 – 12:00

CLOSED-BOOK EXAMINATION

This question paper consists of 4 pages.

Max = ₹ 77%

Min = 59%

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NON-NATIONAL CERTIFICATE: ENGINEERING CERTIFICATE OF COMPETENCY
LEGAL KNOWLEDGE: MINES
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.

2. Read ALL the questions carefully.

3. Number the answers correctly according to the numbering system used in this question paper.

4. Rule off across the page on completion of each question.

5. ALL calculations must be shown.

6. Use only BLACK or BLUE ink.

7. NO cellular phones are allowed in the examination room.

8. Questions are based on the requirements and practical application of the Mine Health and Safety Act, 1996 (Act 29 of 1996) and the regulations framed under Schedule 4. Answers must be confined to these requirements.

9. Candidates arriving 30 minutes late will NOT be allowed to sit for the examination. NO candidates writing the examination may leave the examination room BEFORE ONE HOUR after commencement of the examination.

10. Candidates who have NOT been accepted by the Commission of Examiners will be disqualified.

11. This is a CLOSED-BOOK EXAMINATION. Candidates may NOT use any notes, textbooks or reference works during this examination.

12. Write neatly and legibly.

QUESTION 1

Define the following:

1.1   Mine, when used as a noun   (3)

1.2   Machinery   (2)

1.3   Pressure vessel   (5)
                                                                        [10]

QUESTION 2

2.1   What is a *booster fan* and when is it used?   (3)

2.2   What are the power requirements for a main fan?   (5)

2.3   What are the inspection requirements for a main fan?   (2)
                                                                        [10]

QUESTION 3

State 10 requirements pertaining to conveyor belt installations, as expounded in Regulation 8.9(1).   **[10]**

QUESTION 4

4.1   What are the lighting requirements for workplaces?   (2)

4.2   How are workplaces defined in the Mine Health and Safety Act?   (5)

4.3   What type of apparatus can be used in a hazardous location?   (1)

4.4   What type of equipment may be used where the flammable gas is at levels above the gas flashpoint?   (2)
                                                                        [10]

QUESTION 5

What are the requirements for trackless mobile machines, as related to ...

5.1   brakes?   (3)
5.2   operators?   (2)
5.3   areas around the mobile machine that are not visible to the operators? (5)
                                                                        [10]

QUESTION 6

6.1   What are the functions of health and safety representatives?   (4)

6.2   What are the functions of the health and safety committees?   (6)

                                                                                                                                            [10]

QUESTION 7

7.1   When may certificates of competency be suspended?   (3)

7.2   Who may suspend or cancel certificates of competency?   (7)

                                                                                                                                            [10]

QUESTION 8

8.1   What are the requirements for an inspector to issue a Section 54 instruction?   (5)

8.2   What are the requirements for an inspector to issue a Section 55 instruction?   (5)

                                                                                                                                            [10]

QUESTION 9

9.1   What are the requirements for a person walking on a slippery surface?   (2)

9.2   What are the requirements for a person entering a large dam of water?   (2)

9.3   What are the requirements for a slope in excess of 70°?   (2)

9.4   What are the requirements for vertical ladders?   (2)

9.5   What are the requirements for visible, moving machine parts?   (2)

                                                                                                                                            [10]

QUESTION 10

10.1   What are the responsibilities of an appointed engineer?   (4)

10.2   When must a certificated engineer be appointed?   (2)

10.3   Who appoints a certificated engineer?   (2)

10.4   Who assists the engineer in general charge and under what conditions?   (2)

                                                                                                                                            [10]

                                                                                                                    TOTAL: 100