



**PROGRAM** : BACCALAUREUS TECHNOLOGIAE  
MINERAL RESOURCE MANAGEMENT

**SUBJECT** : MINERAL SURVEY LEGISLATION

**CODE** : MSL41-1

**DATE** : FINAL EXAMINATION  
01 JUNE 2015

**DURATION** : (Y - PAPER) 12:30 – 14:30

**WEIGHT** : 40 :60

**FULL MARKS** : 104

**TOTAL MARKS** : 104

---

**EXAMINER** : MR K S PHOGOLE

**MODERATOR** : MR D MAPHUTHA 5013

**NUMBER OF PAGES** : 5

---

**INSTRUCTIONS TO STUDENTS:**

1. ANSWER ALL THE QUESTIONS.
2. NUMBER THE QUESTIONS CLEARLY.

---

**PART A: THE MINE HEALTH AND SAFETY ACT, 1996 (ACT 29 OF 1996) AS AMENDED****Question 1**

- a) State the objects of the Act (10)
- b) An informal settlement has been established in close proximity of a quarry where blasting takes place. What are the duties of the employer of the mine with regard to maintaining a healthy and safe environment? (4)

[14 marks]

---

**Question 2**

- a) State the detail that must be shown in the report prepared by the employer after the completion of an investigation into every accident that must be reported in terms of the above-mentioned Act as well as every serious illness and health threatening occurrence. (4)
- b) To whom must a copy of the above report be delivered? (2)

[6 marks]

---

**Question 3**

- a) Define “reasonably practicable” in terms of the above-mentioned Act. (5)
- b) Define “mine” when used as a verb, in terms of the above-mentioned Act. (3)
- c) Define “health-threatening occurrence” in terms of the above-mentioned Act? (2)

[10 marks]

---

**PART B: MINE SURVEYING REGULATIONS****Question 4**

You are appointed the responsible Mine Surveyor in terms of the above-mentioned regulations on a mine in the West Rand of Gauteng. The company have purchased an old mine in this area to salvage whatever gold was left. The previous company applied for closure and received a certificate. Further information is that the old company decided to develop inclined shafts on reef in the eastern direction, which were only used for ventilation purposes. Two vertical shaft were developed some 150 metres eastwards, from the outcrop of the ore body. Due to the power line and the road which needed to be protected, mining could only take place to the eastern side of the shafts. The reef dips at is 20 degree. Mining will take place from the outcrop position by opencast means for the first fifty metres horizontally. The old road and the power line has been diverted from this area. Blasting will take place. The old mine is flooded

- a) Where would you apply for the recovery of old plans and records? (1)
- b) What does the regulation require in terms of the person appointed to be in charge of surveying and mapping at this mine? (3)
- c) Name the prescribe mine plans required to be kept in terms of the regulations for the new area. (9)
- d) What are the requirements of the regulations with regard to the updating of these plans? (2)
- e) The metallurgical plant lies somewhere between the outcrop and the two shafts, what would be your recommendation regarding the safety of the structure? (5)
- f) In terms of safe holing into the old areas what precautions will you put in place? Will it be possible to effect safe holing? (6)
- g) Ground movement has been noticed as soon as the company starts with the underground mining. What precautions would you take to ensure early warning signs if ground movement occur? (4)

[30 marks]

---

**Question 5**

- a) Apart from all details which are required to be shown on mine plans, what other details is required to be shown on a surface plan. (6)
- b) What do you understand by an Index Key Plan and Insert Key Plan? (2)
- c) What do the regulations prescribed with regard to the Departmental Copies of the mine plans? (2)

[10 marks]

---

**PART C: - THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 AND REGULATIONS****Question 6**

- a) In accordance with the requirements for mine closure, the holder of a prospecting right, mining right, retention permit or mining permit, must ensure that the six (6) principles for mine closure in terms of the regulations of the above-mentioned Act, are complied with. Briefly describe these principles. (6)
- b) Define “residue stockpile” in terms of the above-mentioned Act? (4)

[10 marks]

---

**Question 7**

- a) To whom must the application for a prospecting right be made and where must it be lodged. (2)
- b) Within what period must the applicant be notified whether the application for a prospecting right is accepted or does not comply? How must the applicant be notified? (2)
- c) When can the holder of a mining right apply for a closure certificate? (4)
- d) To whom must the application for a closure certificate be made and within what time period must this application be made? (2)

- 
- e) What reports must accompany such application? (2)
- f) Before a closure certificate is issued, who must confirm that all relevant provisions pertaining to certain issues have been addressed? (2)
- g) An application for a mining right in terms of the regulations of the above-mentioned Act, must be accompanied by a plan of the land to which the application relates. Name six (6) items which must appear on such plan.

(6)

[20 marks]

---

[Grand Total= 100]

---