

PROGRAM : NATIONAL DIPLOMA
MINERAL SURVEYING
MINING ENGINEERING

MODULE : ENGINEERING MANAGEMENT II

CODE : MGN21-1

DATE : FINAL SUMMATIVE ASSESSMENT
2 JUNE 2016

DURATION : (SESSION 2) 12:30 - 15:30

WEIGHT : 40: 60

TOTAL MARKS : 100

EXAMINER : MS D KOHALY

MODERATOR : MR R SIBANDA

NUMBER OF PAGES : 6 PAGES

INSTRUCTIONS:

1. READ INSTRUCTIONS IN EACH SECTION CAREFULLY
 2. WRITE YOUR LECTURER'S NAME ON YOUR ANSWER SHEET
 3. PLAN YOUR TIME CAREFULLY
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SECTION A

Read the article “All-time low” (Mining weekly, vol 22 no4 Feb 5-11 2016) before answering the questions 1-10. Questions 11-20 relate to your syllabus. Choose the most correct answer and write down only the question number and correct letter. e.g. 1C

ALL – TIME LOW

2015 fatality rate the lowest ever, occupational disease incidence down 3%

1. South Africa recorded its lowest-ever number of mine fatalities last year-77- down from 84 the year before. Gold mines reported 33 fatalities, which was a huge improvement on the 44 fatalities that occurred the year before, however, the number of fatalities in platinum mines increased from 16 in 2014 to 22 in the year under review. The coal sector recorded five fatalities last year – an improvement on the nine fatalities in 2014. Other sectors, including diamonds, copper, chrome, iron-ore and other commodity operations, reported 17 fatalities, which was a regression from the 15 fatalities recorded in 2014.
2. “The South African mining sector is now comparing favourably, in terms of fatality rates, with other countries, such as the US, Canada,” Mineral Resources Minister Mosebenzi Zwane enthused during a media briefing in Tshwane, where he released the 2015 safety statistics. He highlighted that a large number of mining companies, including De Beers, Exxaro, Sasol, Northam Platinum, Pilanesberg Platinum, South32, Aquarius Platinum, Total Coal, Kuyasa Mining, Coal of Africa, Foskor, Lafarge, AfriSam, Petra Diamonds and Trans Hex Mining, had not had any fatalities in more than 12 months.
3. Zwane noted, however, that 3 116 injuries were reported in 2015 – a 15% year-on-year regression from the 2 700 injuries recorded the year before. “The regression is largely as a result of the comparison period, which includes the platinum wage negotiation period in 2014,” he explained. The Minister highlighted that compliance with statutory reporting had improved last year, as mines had timeously submitted their occupational hygiene statutory returns and annual medical reports (AMRs).
4. Zwane added that there was an improvement of 3% in the number of occupational diseases reported, which declined from 6 810 in 2014 to 6 577 in 2015. “We welcome the overall improvement in matters of health and safety and pledge to continue to work with all our stakeholders to ensure these matters remain a top priority for all of us”.
5. NUM national secretary for health and safety Eric Gcilitshana welcomed the decline in fatalities. We believe this is the result of a number of interventions that have been implemented by mine management, the Department of Mineral Resources (DMR) and the respective trade unions. “There has been a significant and consistent decline in mining fatalities since 2012 when over 100 deaths were recorded. However, we are still deeply concerned by the number of fatalities which are occurring as there are still people that have been left widowed and without a breadwinner owing to the deaths of these 77 mineworkers in 2015. The ultimate aim is still to ensure that zero harm occurs on mines,” he said.
6. However, AMCU president Joseph Mathunjwa stated: “One dead miner is one dead miner too many. These mines will continue to slaughter black mineworkers as long as the legislation is not transformed and tailored to ensure the rights of the workers are made paramount. The Compensation of Occupational Injuries and Diseases Act must be amended, as it is not protecting the mineworkers’ interests; instead it is protecting the interests of the mine bosses, as it prevents the families of deceased miners from suing the companies to get compensation,” he contended. He further argued that, until mining company executives were held criminally liable for the deaths of mineworkers, there would be no meaningful improvement in the lives of mineworkers.

Section A (Continued)

7. Solidarity sustainable development and relations head Leigh McMaster, meanwhile, called on mining industry stakeholders, including mining companies, trade unions and government, to continue to engage one another on health and safety matters and actively participate in measures as outlined by the DMR.

Adapted from Mining weekly, vol 22 no4 Feb 5-11 2016

1. The title of the article refers to the:
 - A. Rand/Dollar exchange rate
 - B. 2015 mining fatality rate
 - C. Present fatality rate
 - D. South African unemployment figure
2. Fatalities decreased in 2015:
 - A. In all South African mines
 - B. In platinum mines only
 - C. In coal mines only
 - D. In both gold and coal mines
3. The word regression in paragraph 3 means:
 - A. Improvement
 - B. Relapse
 - C. Disastrous
 - D. Comparative
4. Occupational diseases could include:
 - A. Diseases caused by metal inhalation
 - B. Diseases caused by smoking cigarettes
 - C. Sexually transmitted diseases
 - D. Genetically transmitted diseases
5. Eric Gcilitshana's comment refers to the:
 - A. Marikana strikers who lost their lives
 - B. Fatalities in mines last year
 - C. The miners who lost their lives in the 2016 Lilly Mine disaster
 - D. Racism still present in mining
6. Joseph Mathunjwa's comments stress the:
 - A. Accountability of mines' senior management
 - B. Accountability of the ANC and government
 - C. Accountability of the South African Courts
 - D. All of the above

Section A (Continues)

7. The tone of the article is:
 - A. Despairing
 - B. Optimistic
 - C. Pessimistic
 - D. Accusatory
8. The Compensation of Occupational Injuries and Diseases Act is:
 - A. Legislation in place to take action against mining companies
 - B. Zwane's policy on decreasing fatalities
 - C. Legislation aimed at assisting afflicted families
 - D. Legislation to provide the injured with legal representation
9. The Mineral Resources Minister refers to overseas countries as a:
 - A. Publicity stunt to cement his position in government
 - B. Record of South Africa's modernity
 - C. Proof of South Africa's success rate
 - D. Cover up of the real fatality statistics
10. The readers of this article would most likely be:
 - A. Students at universities
 - B. Members of AMCU and NUM
 - C. Government ministers
 - D. Managers in the mining industry

The following questions are from your knowledge of the management syllabus:

11. In conducting a meeting, the chairperson should:
 - A. Allow all participants to talk in the beginning
 - B. Read out the minutes of the previous meeting
 - C. Invite a guest speaker to conduct the meeting
 - D. End positively, despite disagreements
12. Minutes of a meeting are a valuable record as these:
 - A. Confirm that the organization holds meetings
 - B. Note the register
 - C. Indicate future action
 - D. All of the above
13. Member-centred meetings rely on a/an:
 - A. Authoritarian chairperson
 - B. Permissive chairperson
 - C. Participative chairperson
 - D. Dominant chairperson

Section A (Continues)

14. In presenting an oral presentation, a speaker must:
 - A. Always stick to his/her notes
 - B. Uncover the audiovisual aids in the middle of the speech
 - C. Project his/her voice to the last row
 - D. Preach until the audience is swayed to his/her viewpoint
15. When faced with a hostile audience, a speaker must:
 - A. Indicate that discussion will be addressed later
 - B. Tell a joke to win over the troublemakers
 - C. Ask the troublemakers to leave
 - D. Refuse to speak until there is silence
16. Visualisation should be used by the manager in assisting employees to:
 - A. Relax after a busy day
 - B. Harness the power of the subconscious mind
 - C. Win sport matches
 - D. Deal with the fear of change
17. Visualisation works best when it is:
 - A. Frequent and intense
 - B. Accompanied by affirmation
 - C. Practiced in short bursts every morning
 - D. Based on positive role models
18. In mentoring a protégé, a manager should:
 - A. Discuss the organizational culture of the company
 - B. Indicate the office seating plan
 - C. Assist with remuneration
 - D. Answer all questions about all staff members
19. Mentoring is valuable in an organization as often:
 - A. Protégés become good friends with a mentor
 - B. Protégés become personal assistants to a mentor
 - C. Protégés develop skills to be used in the wider world
 - D. Protégés consider a mentor as a role model
20. The manager who wishes to implement change at work should:
 - A. Involve workers in the planning and implementation processes
 - B. Send out a written mail informing workers of the change
 - C. Advise all workers to read "Who moved my cheese?"
 - D. Only present the advantages of the change

[20]

SECTION B

1. As a potential future Mining Manager, write a paragraph of ± 10 lines where you explain how you could possibly assist in reducing fatalities in your workplace. (15)
 2. In addressing the problem of fatalities, identify how an X manager, according to McGregor would deal with his/her team (5)
 3. In addressing the problem of fatalities, identify how a Y manager, according to McGregor would deal with his/her team. (5)
 4. According to Maslow's hierarchy of needs, which level would relate most to the subject discussed in the article in Section A? Justify your answer. (5)
- [30]**
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SECTION C

Write an essay of approximately **ONE** page in length on one of the following topics below.

Indicate rough work as preparation.

Marks will be awarded for both content and style

1. Dr Johnson in "Who moved my cheese?" investigates the power of fear. Evaluate this statement and present Dr Johnson's suggestions in dealing with fear. (50)

OR

2. Herzberg's hygiene factors might ironically be motivators in your choice of mining as a career. Identify these hygiene factors and describe how they contribute to motivate you at work. (50)

[50]

GRAND-TOTAL = 100
