PROGRAM: NATIONAL DIPLOMA
(Mineral Surveying and Mining Engineering)

SUBJECT: ENGINEERING MANAGEMENT III (S4)

CODE: MGN 32-1

DATE: SUMMER EXAMINATION 2016
3 DECEMBER 2016

DURATION: (SESSION 1) 08:30 - 11:30

TOTAL MARKS (Parts 1 & 2): 100
TOTAL MARKS (Parts 3): 40
GRAND TOTAL MARKS: 140

EXAMINER (Parts 1 & 2): Maelani Chauke

EXAMINER (Parts 3): Ms DS Kohaly

MODERATOR (Parts 1 & 2): Mr. L. Zindi
MODERATOR (Parts 3): Mr. R. Sibanda

NUMBER OF PAGES: 9

INSTRUCTIONS:

1. **PLEASE** answer **ALL** questions
2. There are three (3) parts herein viz. Part 1, 2, and 3.
3. Parts 1 and 2 must be answered in one answer book. Part 3 must be answered in a separate answer book
4. Write your lecture’s name on your answer book
5. Number all questions, and sub-questions **CLEARLY**
6. All the relevant rules of the University of Johannesburg shall apply
PART 1: RISK MANAGEMENT

Question 1

1.1 Distinguish between ‘risk’ and ‘hazard’  [5]

1.2 Explain the characteristics or features one would use to evaluate the usefulness of a risk model (Hint: use the purposes of a risk model)  [5]

1.3 Explain the Standard Risk Model. Define all the terms used in the model. The use of an appropriate figure is recommended  [10]

Question 2

2.1 Reproduce the ‘Risk Management Cycle’. Clearly indicate the risk assessment and the risk mitigation component or elements of the cycle. Why is it important to distinguish the risk assessment from the risk mitigation elements?  [10]

2.2 List the steps in risk assessment  [5]

2.3 List the ‘5 tees of Risk’  [5]

Question 3

3.1 Distinguish between safety risk and health risk  [5]

3.2 Describe the various aspects of medical surveillance in the South African mining industry  [5]

3.3 Explain the essential guiding principles regarding HIV workplace management, specifically as it applies to the South African mining industry  [5]

3.4 List the five major barriers to human performance in safety  [5]
PART 2: LABOUR RELATIONS

Question 4

4.1 Summarize the views of the following (i.e. pioneers in the development of labour relation):

4.1.1 Free-market economists (e.g. Adam Smith, Ricardo, etc.) [5]
4.1.2 Marx (capitalism and the working class) [5]

4.2 List the role players in the tripartite employment relationship [3]

4.3 Explain a 'contract of employment' [3]

4.4 Explain 'grievance' and 'grievance procedure' [4]

Question 5

5.1 List three grounds for dismissal (as per the labour Relations Act) [3]

5.2 List three examples of dismissals on the grounds of misconduct [3]

5.3 Discuss the essential elements (or issues) regarding the 'Code of Good Practice on Dismissals' based on Operational requirements' [10]

5.4 Incapacity dismissal. What does it mean to be dismissed for incapacity? [4]
PART 3: BUSINESS MANAGEMENT

PROGRAMME : NATIONAL DIPLOMA
             MINERAL SURVEYING
             MINING ENGINEERING

SUBJECT : ENGINEERING MANAGEMENT III

CODE : MGN32-1

DATE : FINAL SUMMATIVE ASSESSMENT OPPORTUNITY
       02 DECEMBER 2016

DURATION : 3 HOURS

WEIGHT : 40: 30: 30

EXAMINER : MS DF KOHALY

MODERATOR : MR R SIBANDA

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

Page 4 of 9
SECTION A

Read the following article entitled “SA is still an investor’s dream” before answering the questions. Choose the most correct answer for each question. Write down the question number and correct letter only. Choose the most correct answer for each question. Questions 1-10 relate to the article. Questions 11-20 relate to the syllabus.

SA IS STILL AN INVESTOR’S DREAM
by Jeff Radebe, Minister in the Presidency for Planning, Monitoring and Evaluation.

1. South Africa has proven itself to be an investment destination which consistently attracts some of the world’s top businesses to its shores. Recently a number of high-profile international brands announced their expansion into the country. Their decision to invest in a country is not simply decided on the roll of a dice. Decisions are always deliberate and calculated solely on the potential for growth and receiving solid returns.

2. South Africa has on a number of occasions consistently come out on top as the investment destination of choice. This is a strong vote of confidence in the economy and our future economic prospects. It demonstrates that the government is hard at work to support the economy and is a solid signal to rating agencies that our investment grade status is solid. Recent investments include Dursots & All Joy Tomato’s investment of R100 million in a processing plant near Tzaneen. The company uses South Africa as a base to export 25 per cent of its products to the Middle East, China and the rest of Africa.

3. US coffee franchise Starbucks also entered the South African market and plans to open more than 20 stores across the country. It follows other global fast food brands such as Burger King and Krispy Kreme. In another exciting investment in the automotive sector, Japanese car maker Toyota plans to build its new Toyota Hilux and Fortuner at a manufacturing plant in Durban. BMW has begun construction of a new, state-of-the-art body shop as part of a massive R6 billion investment in the country.

4. These investments should not come as a surprise given our stable democracy, sound financial system and highly regulated banking sector. Investors are supported by world-class infrastructure, exciting innovation, research and development capabilities and an established manufacturing base. These investments also bear testament to government’s commitment to provide an environment that is conducive for business to flourish.

5. We are supporting companies which want to take advantage of opportunities within the country. Our 12i Tax Allowance Incentive Scheme helps investors with their capital investment and training for new industrial projects. Through our Clothing and Textiles Competitiveness Programme, 22 new factories have opened and 68 000 jobs have been safeguarded in the clothing, textile, footwear and leather industry.
6. The Automotive Production and Development Programme has attracted investment of R25 billion over the past five years making the country an automotive manufacturing hub. South Africa is also a frontier for new sectors of investment such as the green economy, oil and gas, shipbuilding and the oceans economy. Through our Renewable Energy Independent Power Producer Programme the country has emerged as one of the biggest markets in the world for renewables.

7. At the same time government is working hard to address the constraints in the economy and create the necessary environment to ignite growth through the implementation of the country’s Nine-Point Plan. As part of the plan, we are taking the lead in developing economic infrastructure by investing in electricity, bulk water, ports and rail.

Section A (Continued)

8. This investment will continue through these difficult economic times so that we maintain our competitive advantage and continue to attract investors. It will keep the country on course to take advantage of the next up-cycle in the world economy. Government is doing all it can to draw in more investors so that it can grow employment, reduce poverty and turns the economy around.

9. We believe that these investments contribute significantly to our national goals of rapidly growing the economy and support socio-economic development. They begin a cycle of employment and consumer demand. The responsibility however to create the environment that attracts inward investment is not government’s alone. South Africans as a shareholders in the country have a vested interest in promoting the country in a globally competitive environment.

10. We should never lose sight of the positive attributes that make our country an investment destination of choice. Let us use every opportunity to profile South Africa and share our lucrative investment offerings with the world.

Adapted from The Star, 2 June 2016

1. The title of the article indicates that:
   A. South Africa’s economy is growing
   B. South Africa’s rand is strong against other currencies
   C. Despite negative reports, South Africa’s economy is currently flourishing
   D. Despite negative reports, South Africa is a dream vacation destination.

2. The phrase “roll of a dice” (in paragraph 1) refers to:
   A. Investors choosing South Africa by chance
   B. Investors being bribed to invest in South Africa
C. Investors investing in South Africa as a gamble
D. Investors specifically choosing to invest in South Africa

3. According to the writer the main reason for certain companies investing in South Africa is:
   A. Starbucks can open more than 20 stores
   B. The banking sector provides huge loans
   C. Toyota and BMW have access to minerals
   D. The South African government is supportive of investors

4. “Renewables” (underlined in paragraph 6) refers to:
   A. New mines opening
   B. Conserving scarce resources
   C. Extending contracts with investors
   D. Introducing new products and markets

Section A (Continues)

5. The word “constraints” (underlined in paragraph 7) is synonymous with the following word in paragraph 8:
   A. Difficulties
   B. Competitiveness
   C. Advantages
   D. Up-cycles

6. In your opinion, the writer most probably gives a subjective view since he is:
   A. Tired of all the negative reports about South Africa’s economy
   B. Representing the government
   C. Attempting to convince students not to protest
   D. Unaware of the high unemployment figures

7. The article may be criticized as being:
   A. Biased reporting
   B. Objective reporting
   C. Unfactual reporting
   D. Prejudiced reporting

8. According to the writer, in order to attract investor’s the onus is on:
   A. The government
   B. Small businesses
   C. All South Africans
   D. The Newspaper

9. The main reason that the writer wrote this article is that :
   A. Jeff Radebe is the Minister in Presidency for planning, monitoring and evaluation
   B. Jeff Radebe is trying to win ANC votes
C. Jeff Radebe is proud to be a patron of Burger King and Krispy Creme
d. Jeff Radebe believes that South Africa has a promising investment future

10. "Lucrative" (underlined in paragraph 10) refers to investments in South Africa as:
A. Profitable
B. Unprofitable
C. Worthless
D. Simple

Question 11-20 relate to the syllabus

11. The economic principle implies that:
A. Communities must be selective as production factors are scarce
B. Production factors are widespread and readily available
C. Businesses must minimize need satisfaction with the maximum amount of production factors
D. Communities must not use production factors in establishing businesses.

Section A (Continued)

12. In a free market system:
A. There is no motivation to make a profit
B. Production factors belong to the state
C. Anyone has the right to make a profit
D. There is no competition between enterprises is permitted

13. South Africa's economic system is:
A. Completely socialist
B. A controlled free market
C. A centrally controlled system
D. A free market system

14. Blake and Mouton's grid shows the best leadership style as:
A. Country Club
B. Laissez Faire
C. Middle of the Road
D. Team

15. According to Blake and Mouton, leaders who are neither People oriented nor Task oriented are:
A. Autocratic
B. Laissez Faire
C. Country Club
D. Middle of the Road

16. Objectives of an enterprise include:
A. Supporting the community
B. Quality products and profit
C. Paying suppliers on time
D. All of the above

17. The market environment of an enterprise includes:
A. Consumers and competitors
B. Social and cultural forces
C. Economic and statutory variables
D. Production factors

18. The micro environment of an enterprise includes:
A. Mission and objectives
B. Suppliers of resources
C. Physical variables
D. Economic conditions

19. In establishing the location of an enterprise, the most important considerations are:
A. Sufficient water and power
B. Rental costs
C. Personal considerations
D. The market and availability of labour

20. Middle level management is concerned with:
A. Strategic planning
B. Long term objectives
C. The Board of Directors
D. Medium to short term planning

SECTION B

Write an essay of ± 1 page in length on one of the topics below. Marks will be deducted for both content and style.

1. The article in Section A provides a positive description of South Africa’s economy. However, this viewpoint is debatable. Present a counter argument to the article by factually describing examples of the challenges of the economy. [20]

OR

2. From the book “South Africa’s Greatest Entrepreneurs” (Makura, 2010) select an entrepreneur who took great risks on his/her way to success. Identify these risks and explain their positive outcome to his or her success. (Note: do not tell the story). [20]