



FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF QUALITY AND OPERATIONS MANAGEMENT

FIRST SEMESTER MAIN EXAMINATION - 2019

PROGRAMME	NATIONAL DIPLOMA IN OPERATIONS MANAGEMENT
MODULE	OPERATIONS MANAGEMENT 3A
MODELE CODE	OPM33A3
DATE	29 MAY 2019
DURATION	3 HOURS
TIME	08:30 – 11:30
TOTAL MARKS	100

<u>EXAMINER</u>	MR. N. MADONSELA
<u>INTERNAL MODERATOR</u>	PROFESSOR. P. KHOLOPANE
<u>EXTERNAL MODERATOR</u>	PROFESSOR. K. RAMDASS

<u>NUMBER OF PAGES</u>	3 PAGES (including cover page)
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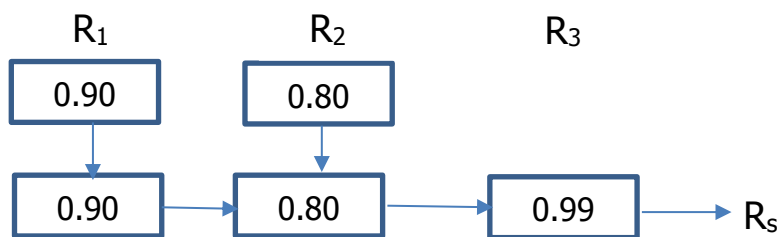
INSTRUCTIONS TO CANDIDATES:

- Please answer all questions.
- Calculators are allowed
- Question papers must not be handed in.
- This is a closed book assessment.
- Read the questions carefully and answer only what is asked.
- Number your answers clearly.
- Write neatly and legibly.
- Structure your answers by using appropriate headings and sub-headings.
- The general University of Johannesburg policies, procedures and rules pertaining to written exam apply.

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QUESTION 1

- 1.1** A skeptical manager asks about the benefits of maintenance. Based on your understanding, elaborate and validate the benefits of maintenance? (15)
- 1.2** A maintenance manager, trying to optimise system performance, collected data on the system reliability. Therefore, he decides to provide redundancy for the two least reliable components. Determine the reliability with backup. (15)



- 1.3** You have been appointed General Manager of Pauli's Restaurant and Microbrewery. After your first weekend on the job, you received a request for maintenance organisation. How would you develop a maintenance plan for this restaurant? (16)
- 1.4** Refer to 1.3, and explain the factors that affect the efficiency of an effective preventive maintenance program? (12)
- 1.5** In your own words, what is meant by the term maintenance? (2)

[60 MARKS]

QUESTION 2 (THEORY)

- 2.1** Discuss the role of first line management in preventive maintenance. (10)
- 2.2** List and briefly explain the Zero Accident Practices. (15)
- 2.3** Based on what you have learned, state how a manager can identify and manage risk. (5)
- 2.4** Justify the need for a computerised maintenance management systems (CMMS) in global practices of today's industries? (8)
- 2.5** Interpret in your own words the importance of maintenance? (2)

[40 MARKS]

[TOTAL MARKS 100]