Occupational Certificate: Project Manager

SAQA ID 101869 | NQF Level 5 | 240 Credits

Knowledge Module 09 — Project Risk Management

NQF Level 5 | 8 Credits

SUMMATIVE ASSESSMENT

Open-book Knowledge Assessment — completed individually at the end of the Knowledge Module

Learner name: _____ **Date:** _____

Facilitator/Assessor: _____

Assessment Information

Time allowed: [to be confirmed by the facilitator]
Core total: 100 marks (Questions 1–6) **Pass mark:** 70% (70/100) — confirm against your provider's assessment strategy
Bonus: up to 20 additional marks (Case Study) — added to your raw score for Questions 1–6 and does not count against you

Instructions to the learner

- This is an OPEN-BOOK assessment — you may refer to your Knowledge Module Guide and your own notes, but it must be completed individually, without discussing answers with other learners.
- Answer ALL questions in Section 1–6 in the spaces provided; the number of marks is shown after each question and indicates how much detail is expected.
- Where a question asks for a specific number of items (e.g. "any three"), only that number will be marked — do not exceed it.
- The Bonus Case Study at the end is optional but strongly encouraged — because this is an open-book test, it is designed to check that you can apply what you've learned, not just find it in the Guide.
- Write clearly. Marks are awarded for accurate, relevant content, not length.

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Question 1 — KT 01 — Plan Risk Management (20 marks)

1.1 Give TWO different definitions of "risk" provided in the Guide: (a) the general definition given under "Define Risk", and (b) Larry Krantz's (Chief Executive of Euro Log Ltd) definition. **[4 marks]**

1.2 Name the TWO stages in the process of Risk Management described in the Guide. **[2 marks]**

1.3 List any SIX of the ten categories of risk named in the Guide. **[6 marks]**

1.4 List any FOUR of the components of the Enterprise Risk Management (ERM) Architecture named in the Guide. **[4 marks]**

1.5 Name any FOUR of the outputs of the risk management planning process listed in the Guide. **[4 marks]**

Question 2 — KT 02 — Identify Risks (15 marks)

2.1 Give the Guide's definition of risk identification, and state its objective. **[3 marks]**

2.2 Name the THREE elements the Guide says it is essential to consider when describing a risk. **[3 marks]**

2.3 List any FIVE of the information-gathering risk identification techniques named in the Guide. **[5 marks]**

2.4 True or False, with justification: Documenting a risk statement as simply "The budget is at risk" is acceptable for the risk register. **[2 marks]**

2.5 Name any TWO of the THREE main purposes of a risk register described in the Guide. **[2 marks]**

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Question 3 — KT 03 — Qualitative Risk Analysis (15 marks)

3.1 Name the THREE categories or types of analysis that can be used to determine the level of risk, according to the Guide. **[3 marks]**

3.2 Define qualitative risk analysis, and state ONE advantage and ONE disadvantage of it named in the Guide. **[3 marks]**

3.3 List any FOUR of the methods for qualitative risk analysis named in the Guide. **[4 marks]**

3.4 True or False, with justification: On the Guide's risk assessment matrix, a risk rated as high probability and low impact is given a HIGH priority rating, while a risk rated as low probability and high impact is given only a MEDIUM rating. **[3 marks]**

3.5 Name any TWO of the tools and techniques for Perform Qualitative Risk Analysis named in the Guide, other than the Probability and Impact Matrix. **[2 marks]**

Question 4 — KT 04 — Quantitative Risk Analysis (15 marks)

4.1 List any FOUR of the main advantages of a quantitative approach to risk analysis named in the Guide. **[4 marks]**

4.2 When more accurate data is not available, the Guide says a triangular distribution may be adopted. Name the THREE values this requires. **[3 marks]**

4.3 State the Expected Monetary Value (EMV) formula given in the Guide, and define each term in it. **[3 marks]**

4.4 Name any THREE things the Guide says a Monte Carlo Analysis (simulation technique) does or determines. **[3 marks]**

4.5 List any TWO of the Quantitative Risk Analysis and Modelling Techniques named in the Guide, other than Monte Carlo simulation. **[2 marks]**

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Question 5 — KT 05 — Plan Risk Response (20 marks)

5.1 Name the FOUR contingency plan approaches (response strategies) for addressing identified risks, as listed in the Guide. **[4 marks]**

5.2 List any FOUR of the steps the Guide describes for developing a contingency plan. **[4 marks]**

5.3 Define "start trigger" and "stop trigger" as used in the Guide. **[2 marks]**

5.4 A risk is estimated to result in an additional cost of R80,000, with a 60% probability of occurring. Using the Guide's method, calculate the amount that should be included in the budget as a contingency for this risk item. Show your working. **[2 marks]**

5.5 List the FOUR items the Guide says a detailed action plan against a risk should include. **[4 marks]**

5.6 Give the Guide's definition of "contingency planning". **[2 marks]**

5.7 According to ISO/IEC 27001 as cited in the Guide, what document should be prepared immediately after completion of the risk assessment phase, and what should it document? **[2 marks]**

Question 6 — KT 06 — Control Risks (15 marks)

6.1 Name the THREE elements of Risk Control shown in the Guide's risk management diagram. **[3 marks]**

6.2 List any FIVE of the ten items in the Guide's hierarchy of control (from high risk to low risk). **[5 marks]**

6.3 Name the FOUR major categories into which techniques for reducing the effect of risk fall, according to the Guide. **[4 marks]**

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6.4 List, as a minimum, the FOUR items the Guide says an emergency plan should contain for each identified significant risk. **[3 marks]**

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★ Bonus Question — Case Study

20 bonus marks (added to your raw score for Questions 1–6; not required to pass)

Case Study: The Thusong Road Upgrade Project

Karabo Civil Works (Pty) Ltd has been contracted by a rural municipality to upgrade a 12km gravel road to a sealed tar road before the rainy season begins. The events below happened, in order, over the life of the project.

The events, in order:

- During project planning, the risk team agreed a probability and impact matrix and definitions for high, medium and low risk, based on the organisation's existing risk templates.
- During a risk identification brainstorming workshop, a junior engineer simply wrote in the risk log: 'the schedule is at risk.'
- The team then analysed each risk on the register. They rated the risk of 'the sole tar supplier folding before delivery' as high probability but low impact, and gave it a Medium rating on the matrix. They rated the risk of 'a two-day heavy rainfall event during the sealing phase' as low probability but high impact, and gave it a High priority rating.
- For the rainfall risk, the project controller estimated that if it occurred it would cost the project R120,000 in schedule-recovery measures, and assessed a 25% probability of it happening within the sealing window.
- To deal with the tar-supplier risk, the project manager decided the sealing phase would simply not begin until a confirmed supply contract with a second regional tar supplier was in place — choosing not to start the activity at all until supply was guaranteed.
- The site team agreed that if the local weather station recorded more than 25mm of rain in a 24-hour period during sealing, the site supervisor would immediately halt work and activate the agreed recovery plan; the site supervisor was named as the person accountable for recovery from this specific risk.
- Halfway through the sealing phase, the weather station recorded 30mm of rain in 24 hours. The supervisor immediately reported this to the project manager and activated the recovery plan.

Use the scenario above, together with what you have learned in this Knowledge Module, to answer the following:

B1 The risk log entry 'the schedule is at risk' is a poor risk statement. Explain, using the Guide's own guidance, why it is unacceptable, and rewrite it as an acceptable risk statement using the cause-and-effect structure the Guide recommends, based on either the tar-supplier risk or the rainfall risk in the scenario. **[6 marks]**

B2 Explain, with reference to the Guide's risk assessment matrix, why it was correct for the rainfall risk (low probability, high impact) to receive a HIGHER priority rating than the tar-supplier risk (high probability, low impact), rather than the other way around. **[4 marks]**

B3 Using the Guide's method for calculating a contingency budget amount, calculate the amount that should be included in the project's contingency budget for the rainfall risk (R120,000 potential cost, 25% probability). Show your working. **[3 marks]**

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B4 Classify the project manager's decision on the tar-supplier risk — not starting the sealing phase until a second supplier's contract was confirmed — as one of the Guide's FOUR risk-response categories, and justify your classification using the Guide's own definition of that category. **[4 marks]**

B5 The 30mm rainfall reading was the event that activated the recovery plan. Name the term the Guide uses for this kind of event, and name the role the Guide says is normally responsible for monitoring for it and reporting it. **[3 marks]**

Core total: 100 marks | Bonus: up to 20 marks | Maximum possible: 120 marks

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