

Principles of Risk and Risk Management

1. Which of the three actions Tom Brown is undertaking is categorised as a pure risk?
 - A. Buying 100 lottery tickets.
 - B. Selling his house even though he receives less than he paid for it because he thinks prices will fall further.
 - C. Going horse riding without wearing a riding helmet.

2. Hopkin states '*Most standard definitions of risk refer to risks being attached to corporate objectives*'. What else may risks be attached to?
 - A. Core processes.
 - B. Hazard management.
 - C. Risk correlation.

3. Enterprise Risk Management (ERM) is considered to have significant advantages over traditional risk management approaches because ERM
 - A. ensures that an organisation's objectives will be achieved.
 - B. takes an integrated or holistic approach.
 - C. addresses strategic, tactical and operational risk management.

4. Which of the following would you expect to see in the context of risk strategy in the risk architecture, strategy and protocols framework (RASP)
 1. The risk and audit team report to the board quarterly.
 2. The tolerance level of risk is clearly defined.
 3. Ownership of risk is delegated to business units.
 4. The organisation has a defined risk appetite.
 - A. 2 and 3
 - B. 1 and 4
 - C. 2 and 4

5. As part of the ISO 31000 risk management process monitoring and review is best thought of as which of the following?
- A. An extra stage.
 - B. A feedback loop.
 - C. Part of an iterative process.
6. From COSO 2014 what three elements in addition to Business Planning make up the COSO ERM business model?
- 1. Execution
 - 2. Monitoring
 - 3. Control
 - 4. Adapting
- A. 2, 3 and 4
 - B. 1 and 3
 - C. 1, 2 and 4
7. Which factors are likely to influence your view when assigning a low, medium or high rating for the likelihood and impact of an interruption to production due to a natural disaster?
- 1. The length of time since the last natural disaster in the vicinity of the production unit
 - 2. Where your suppliers are located.
 - 3. Long range models and stress scenarios.
 - 4. What you produce.
- A. 1 and 2
 - B. 1, 3 and 4
 - C. 2 and 4
8. One consequence of people who have different risk perceptions undertaking risk assessments is
- A. risks are not fully identified.
 - B. risk treatments could be applied to the less significant risks.
 - C. it is not possible to determine a risk rating for a particular risk

9. Relying on historic analysis when assessing potential risks and possible impacts implies that

- A. should adverse events occur the impact can be accurately modelled.
- B. significant risks have all been seen before.
- C. management believe that the future will behave much like the past.

10. Using the FIRM scorecard which of the following risks could a risk manager quantify?

- 1. Loss of income.
- 2. Financial gain.
- 3. Reputational damage.

- A. 1 and 2
- B. 1 and 3
- C. 2 and 3

11. Which of the following statements are possible ways of defining the upside of risk?

- 1. Less disruption to operations resulting in less downside risk.
- 2. The ability to pursue a business opportunity that a competitor has no appetite for.
- 3. Actions that can maximize positive risk outcomes.
- 4. The outcome of mitigating the magnitude, impact and consequences of a risk event.

- A. 1 and 4
- B. 1 and 2
- C. 2, 3 and 4

12. Which of the following statements about captive insurance companies are correct?

- 1. The domicile for captives is limited to those with favourable regulatory and accounting regimes.
- 2. A captive can access reinsurance markets.
- 3. A captive can sometimes offer greater cover than is available in the insurance market.
- 4. Captives are not permitted to insure the risks of third parties.

- A. 1 and 4
- B. 1 and 2
- C. 2 and 3

13. The following questions consist of TWO statements. Read each statement and consider if each one is 'True' or 'False'. If Statement 1 is 'True', consider if Statement 2 is a correct or an incorrect explanation for why Statement 1 is 'True'.

Statement 1		Statement 2
Business Continuity Planning can be classified as a directive control.	Because	Business Continuity Planning is a technique used to control a low level risk which has occurred.

Choose from the following FIVE possible combinations where the first True/False refers to Statement 1 and the second to Statement 2.

- A. True True and Statement 2 is a correct explanation
- B. True True but Statement 2 is NOT a correct explanation.
- C. True False
- D. False True
- E. False False

Case Study

Foods Company owns a cold storage warehouse for storing frozen foods prior to delivering them to supermarkets. Established in 1999, Foods employs 30 staff.

Goods inwards are stored on pallets and stacked in chiller units or freezer compartments. Temperatures in the cold storage units range from -5 degrees in the chiller units to – 30 degrees in the freezer units. The warehouse has a good sprinkler system with a regular maintenance programme in place.

An accident book is kept on site. Normally there are only a few minor injuries recorded but two employees have reported sick in the last month and were subsequently diagnosed with asthma, potentially caused by the dry atmosphere when working in extreme cold temperatures.

A weekly meeting takes place on site between the site manager and the health and safety manager to discuss risk management matters. The agenda for today's meeting is risk assessment focusing on health and safety hazards.

14. Which risk for this warehouse could be classified as an inherent risk?

- A. Staff being exposed to cold conditions after failing to wear protective clothing.
- B. Accidentally being shut in a freezer cabinet.
- C. Sprinkler systems failing to operate.

15. What corrective action could the two managers consider to reduce the likelihood of more staff going off sick with asthmatic conditions?

- A. Reduce the length of time staff are exposed to cold conditions.
- B. Increase training about the use of protective clothing.
- C. Provide staff with a booklet on keeping warm.

16. To ensure staff are complying with health and safety standards in the warehouse which directive controls could be implemented?

- 1. Supply protective suits for staff to wear to provide extra warmth in the freezer units.
- 2. Issue requirements regarding the wearing of protective suits clothing.
- 3. Require staff working in the storage units to complete checklists and worksheets daily.
- 4. Install cameras in the cold storage units.

- A. 1 and 2
- B. 1 and 4
- C. 2 and 3

17. The health and safety manager confirms the company has employer's liability insurance. Which statement best explains why the company has this insurance?
- A. The company has 25 or more staff.
 - B. Employers' liability is a compulsory class of insurance in most countries.
 - C. The staff members away sick may seek compensation from Foods Company.

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ANSWERS

Question Number	Correct Answer	Rationale
1	C	Pure, or hazard, risks only result in negative outcomes which is why option C is the correct answer. Buying a lottery ticket involves an initial outlay but there is only upside or opportunity risk thereafter. Having decided to sell his house at a lower price than it was purchased for Tom has eliminated his exposure to the impact of changes in house prices.
2	A	Risk attachment is covered in Fig 2.1 in Hopkin which shows how risks can be attached to core processes as well as corporate objectives.
3	B	The key differentiator for ERM is that it takes an integrated or holistic approach. Option A is incorrect as neither traditional or ERM approaches can ensure that an organisation's objectives will be achieved whilst both can address the management of strategic, tactical and operational risks.
4	C	Risk tolerance and risk appetite are part of the risk strategy elements of the RASP framework set out in Fig 6.2 in Hopkin. Risk reporting and roles and responsibilities are parts of the risk architecture within the same framework.
5	C	Monitoring and review is part of the ISO 31000 risk management process set out in Fig 6.4 in Hopkin. It is iterative, rather than just an extra stage or a feedback loop, because each of the stages in the process may be executed multiple times before the risk evaluation is finalised and the appropriate risk treatment agreed.
6	C	The elements of COSO's contextual business model that are set out in Fig 1 are business planning, execution, monitoring and adapting making C the correct answer.
7	C	A key consideration is where your suppliers are located, as production would be harder hit if they were located nearby and affected by the same disaster. The second consideration is what you produce as this will determine the extent to which production

		might be disrupted by a natural disaster, for example products that are reliant on just-in-time deliveries would be more impacted if deliveries could not be made. The length of time since the last disaster is not a relevant consideration as it is unlikely to impact the likelihood of another disaster occurring. Similarly modeling is of limited value when assessing the likelihood of natural disasters occurring.
8	B	One consequence of people having different risk perceptions is that the significance of some risks may be incorrectly determined and therefore treatments could be applied to less significant ones. The failure to identify risks fully is possible but this is relevant to the risk identification stage of risk assessment only and with people having different risk perceptions it is possible that more risks are identified and more fully discussed. In terms of risk assessment ratings, risk perceptions may result in an incorrect rating being applied but a rating will eventually be determined, possibly by the most senior person and even if not everybody agrees.
9	C	Historic analysis is backward looking so using it to make an assessment about future impacts implies that the future will behave much like the past. The use of models to assess the potential impact of risk events can be flawed if there are model errors, the wrong model is used or things have changed. Similarly given the fast pace of change new risks can be expected to emerge that are not captured in the historic analysis.
10	A	Quantifiable risks as per the FIRM scorecard are loss of income and financial gains, see Table 11.2. Quantifying reputational damage is much more difficult.
11	B	Upside risk can be defined in terms of gains from accepting an opportunity as well as lower costs from a positive outcome. Actions that maximize positive risk outcomes or outcomes that affect the magnitude, impact or consequences of a risk event relate to execution rather than definition of upside risk.
12	C	Captive insurance companies are able to access reinsurance markets, can provide cover to group companies that may not be available from other insurers, are able to offer insurance cover to third parties and can decide to locate their domicile in any country not simply those with favourable regulatory and accounting regimes.
13	C	Statement A is True as following pre-agreed directions once a risk event has occurred can significantly reduce impact. Statement 2 is False as BCP as is applied only where significant risks, rather than low level ones, have occurred.

14	B	An inherent risk is one that is measured and assessed before controls to minimize its impact are taken into account making B the correct option. In the other two cases controls have been put in place to reduce the inherent risk.
15	A	A corrective action or control is one that reduces the inherent level of risk to one within appetite which is option A. The other options are examples of directive controls.
16	C	Directive controls include documented procedures that staff are required to comply with, in this case wearing protective clothing and completing checklists and worksheets. Supplying protective clothing and installing cameras are examples of corrective controls.
17	B	Employers' liability insurance is a compulsory requirement in many countries so is the correct answer. Whilst it is true that workers who are off sick for work-related reasons may seek compensation that is not the main reason that employers take out this form of insurance. The number of employees is irrelevant to the decision on whether to take out insurance.