BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT

IT PROJECT MANAGEMENT

Tuesday 8th October 2024 – Afternoon

Answer <u>**any**</u> FOUR questions out of SIX. All questions carry equal marks.

Time: TWO hours

Answer any <u>Section A</u> questions you attempt in <u>Answer Book A</u>
Answer any <u>Section B</u> questions you attempt in <u>Answer Book B</u>

The marks given in brackets are **indicative** of the weight given to each part of the question.

Only **non-programmable** calculators allowed in this examination.

Section A
Answer Section A questions in Answer Book A

A1.

  a) Risk assessment and management are essential aspects of project management.

      i. Explain what is meant by the term 'Risk'.

      ii. There are different types of risk. Distinguish between business risk and project risk**.**

      iii. Give **two** examples of business risk.

      iv. Give **two** examples of project risk.

(8 marks)

  b) Before risks can be controlled, they need to be assessed and prioritised. Risk assessment can be quantitative or qualitative.

      i. Explain in detail the quantitative approach to determine risk exposure. Illustrate your answer with an example.

      ii. Explain in detail the qualitative approach to determine risk exposure. Illustrate your answer with an example.

      iii. Which is the preferred method in modern project management? Justify your answer.

(17 marks)

A2.

a) Estimation of effort and elapsed time for an activity is an essential part of project planning. Discuss the following **three** approaches to estimating, clearly stating their main features and relative advantages/ disadvantages.

    i. Expert Judgement.

    ii. Function Point Analysis.

    iii. Estimation by Analogy.

(13 marks)

b) Resource allocation is a key activity in project planning. Using an example of a software development project:

    i. Explain how staff resourcing can be determined throughout the project.

    ii. Giving suitable examples, explain what is meant by resource type.

    iii. Describe what is meant by a resource histogram and explain its role in determining resource requirements. Illustrate your answer with an example.

    iv. Discuss **one** potential resource allocation issue that may arise. Identify **one** way that it could be overcome, explaining how your suggestion impacts the project plan.
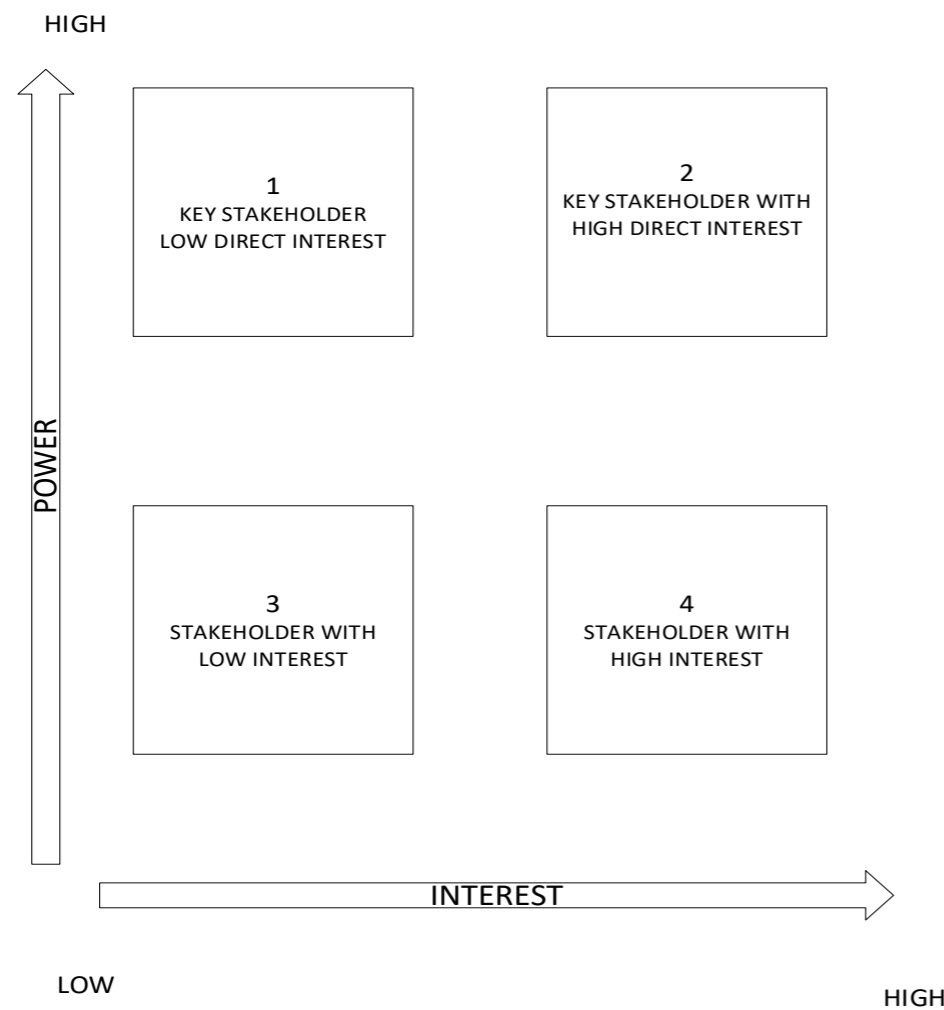
(12 marks)

A3.

a) Explain the purpose of project monitoring.

(3 marks)

b) In order to monitor a project, information is needed.

    i. Which aspects of a project are usually monitored?

    ii. Explain the role of the project plan for monitoring the project.

    iii. Monitoring can be informal or formal. Explain the formal reports that are used for monitoring projects. State who produces them and to whom they are sent.

(10 marks)

c) Discuss the advantages and possible disadvantages of **four** control strategies you might consider using to get a project back on its planned level of progress.

(12 marks)

[Turn Over]

B4.

a) An IT development team has been identified as lacking motivation and interest in carrying out their work. You have been asked to manage the team and improve performance. Explain **two** ways in which you might use work management processes to improve motivation.

(8 marks)

b) Explain why it is important for a project manager to have a good range of communication skills.

(5 marks)

c) Four categories of relationship between power of a project stakeholder and the level of interest that the stakeholder has in project outcomes is often shown in a 2x2 matrix diagram as shown below. For **each** of the **four** categories explain how you would manage the relationship between the stakeholder and project.

HIGH

POWER

| 1
KEY STAKEHOLDER
LOW DIRECT INTEREST | 2
KEY STAKEHOLDER WITH
HIGH DIRECT INTEREST |
| 3
STAKEHOLDER WITH
LOW INTEREST | 4
STAKEHOLDER WITH
HIGH INTEREST |

INTEREST

LOW

HIGH

(12 marks)

B5.

a) Explain the term 'good quality software'.

(6 marks)

b) Describe and give an example of the following five high-level quality characteristics defined in the ISO 25000 quality standards series for Software Quality and Requirements Evaluation.

   i.   Functional Suitability.
   ii.   Performance Efficiency.
   iii. Compatibility.
   iv. Reliability.
   v.   Portability.

(15 marks)

c) Explain some of the issues that would typically be considered when carrying out the peer review method on a software project design document.

(4 marks)

B6.

a) Describe **three** of the typical contents of a business case document for a project.

(7 marks)

b)
   i.   Explain the purpose of a verification testing process and state how it is used in the various stages of a traditional software project development cycle.

   ii.   Explain the purpose of a validation testing process and state how it is used in the various stages of a traditional software project development cycle.

(18 marks)

END OF EXAMINATION