

BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT

IT PROJECT MANAGEMENT

Thursday 17th April 2025 - Morning

Answer **any** FOUR questions out of SIX. All questions carry equal marks.

Time: TWO hours

Answer any Section A questions you attempt in Answer Book A
Answer any Section B questions you attempt in Answer Book B

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. One tool that is useful in this process is the risk register.

- i. Explain what is meant by a risk register and state its purpose.
- ii. Describe the typical contents of a risk register.
- iii. Each risk has an owner. Explain the role of a risk owner.

(10 marks)

- b) Once risks have been identified, they need to be managed.

- i. List and explain **five** different methods of managing risk.
- ii. How would you decide what action to take in managing a risk? Explain the process you would go through.
- iii. Give an example to illustrate your answer to part b) ii.

(15 marks)

A2.

You have been appointed as the project manager for the relocation of a company to new premises. The premises currently have no IT infrastructure. You have drawn up an outline project schedule for the IT aspects of this move with the following main activities:

	Activity	weeks
A	Inspect the new building, assess and list all required IT facilities and hardware	4
B	Identify, order and deliver PCs, printers, servers, telecoms and other hardware	2
C	Order and deliver all required office equipment	10
D	Install cabling and data cabinets	3
E	Install new IT hardware	2
F	Install server software	2
G	Test new hardware / systems software with networks	4
H	Migrate and test all applications software and databases on servers	2
I	Move all staff to new premises	1

Tasks B, C are dependent solely on task A

Tasks D, E are dependent solely on task B

Task F is dependent solely on task E

Task G is dependent solely on tasks D and F

Task H is dependent solely on task G

Task I is dependent solely on tasks H and C

- a) A colleague has suggested that a Product Breakdown Structure (PBS) or a Work Breakdown Structure (WBS) would be useful.
- Describe what is meant by a Product Breakdown Structure (PBS) and explain its purpose.
 - Describe what is meant by a Work Breakdown Structure (WBS) and explain its purpose.
 - Explain the difference between them and where they would be used in project management. **(6 marks)**
- b) It has been suggested that an **activity on node** network diagram would be useful for this project. Explain the purpose of an activity on node diagram and describe its components. **(5 marks)**
- c) Draw a full activity on node diagram for this project, showing clearly the earliest and latest start and end dates (as week numbers), and the float, for each node. Include start and end nodes.
- You should include a key showing the meaning of each field in the node. **(11 marks)**
- d) Explain what is meant by the term critical path, highlight it on your network, and state the minimum duration for the project. **(3 marks)**

[Turn Over]

A3.

a) Project monitoring and control are important activities in project management.

- i. Explain the purpose of project monitoring and control, and the relationship between monitoring and control.
- ii. Discuss the impact of deviating from a project plan.
- iii. Financial monitoring is important for any project. Explain why financial resource usage typically follows an S-curve in a software development project.

(7 marks)

b) If a report shows the project will exceed budget, the magnitude of the overspend affects the action taken.

- i. Explain how the magnitude of the overspend affects the decision-making process, including who has the responsibility to take action to control the overspend.
- ii. Identify **three** typical mitigation responses.

(8 marks)

c) Earned Value Analysis (EVA) is a technique that can be useful for monitoring the project budget.

- i. Explain what is meant by Earned Value Analysis.
- ii. Why is it useful for monitoring project budgets?
- iii. Draw an example diagram to illustrate your answer.

(10 marks)

Section B
Answer Section B questions in Answer Book B

B4.

- a)
 - i. Explain the purpose of undertaking requirements elicitation for a project.
 - ii. Describe **four** techniques that might be used in requirements elicitation.

(13 marks)
- b) Describe **three** ways in which to state well-defined project objectives.

(6 marks)
- c) Explain the types of projects that might be considered unsuited to an agile development approach.

(6 marks)

B5.

- a) Belbin has described an ideal mix of people to hold key roles in a project team. Explain the type of people who fill the following five of Belbin's key roles **and** state a potential problem if a team becomes unbalanced by having two or more of those people in the same role.
 - i. Chair.
 - ii. Shaper.
 - iii. Plant.
 - iv. Specialist.
 - v. Completer finisher.

(15 marks)
- b) You have been tasked with the set up and management of a large and highly technical development project and find there is a shortage of appropriately skilled staff within your organisation. Explain the advantages of **three** methods you might use to find external staff resources that can provide the required number of people with necessary skillsets, and state a possible disadvantage of using the methods you choose.

(10 marks)

B6.

- a)
 - i. Explain the purpose of the ISO9001 standards for a quality management system.
 - ii. Describe **five** of the quality principles on which ISO9001 is based.

(15 marks)
- b) Explain how **each** level of the maturity hierarchy in the Capability Maturity Model (CMM) defines an organisation's software process.

(10 marks)

END OF EXAMINATION