

BCS THE CHARTERED INSTITUTE FOR IT

**BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT**

IT PROJECT MANAGEMENT

Monday 27th March 2017 - 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) Explain the main purpose of using a configuration management system during an IT systems development project.

List and describe the THREE main elements of a configuration management system and explain how they would be used during the project. **(10 marks)**

- b) Identify and describe at least FIVE different details held when defining a configuration item. **(7 marks)**

- c) There are five stages in a change control system:

- submit the request for change
- investigate and review the request for change
- assess the feasibility and implications of the requested change
- consider the request, and decide whether to accept or reject
- implement the accepted change

- (i) Identify the people (or groups of people) who should be involved in each of these stages.

- (ii) Identify and explain in which of these stages the configuration management system should be referred to or affected.

(8 marks)

- A2. Your company's present offices are being closed down and it is moving to a new building nearby. An outline plan for this move has been drawn up with the following main activities.

	Activity	Weeks
A	Inspect the new building, list all required data communications facilities	3
B	Order and deliver all data communications facilities and devices	10
C	Identify, order and deliver replacement PCs, printers, servers and other hardware	8
D	Order and deliver all required office equipment	11
E	Test new hardware with all communications equipment	1
F	Test new hardware with all existing operating and applications software	2
G	Test all applications software and databases on the new hardware	2
H	Move all staff to new premises	1

Tasks B, C and D can all run simultaneously but are all dependent on task A.

Task E is dependent on tasks B and C

Task F is dependent only on task C

Task G is dependent on tasks E and F.

Task H cannot start until tasks D and G are completed.

- 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. No start or end nodes are required. Highlight and name the critical path, together with the minimum duration for the project. **(11 marks)**
- The office equipment (task D) takes two weeks longer than planned to be delivered and installed. Identify and explain briefly the resultant changes to the Activity on Node diagram and critical path. **(5 marks)**
- Draw a Gantt chart for the revised project, incorporating the change to task D as defined in part b). Show all task durations, dependencies, free float and the critical path. **(9 marks)**

- A3.

- IT project managers are expected to possess certain skills or attributes. Describe FOUR skills (things they can do) or attributes (characteristics they possess) of good IT project managers. **(8 marks)**
- IT project managers can employ a number of management styles. Two such styles are known as "autocratic", which is often preferable when most of the project staff are new to a project, and "democratic", where most of the project staff are more experienced and are able to contribute to the decision-making process. Discuss the advantages and disadvantages of each of these styles. **(10 marks)**
- An IT project has been running well for 6 months. The IT project manager then notices a decrease in the efficiency and performance of the project team. Describe the steps they could take to deal with this situation. **(7 marks)**

Section B
Answer Section B questions in Answer Book B

B4.

- a) The System Development Lifecycle (SDLC) for IT products consists of a number of individual processes. These can become the stages of a project. Explain any **FOUR** SDLC processes and the outcomes expected from them. **(20 marks)**
- b) Describe the difference between the verification and validation process in the development of a software product. **(5 marks)**

B5.

- a) Software product standards such as ISO 9126 and ISO 25010 refer to external quality characteristics. Describe any **FOUR** of these characteristics. **(12 marks)**
- b) The ISO 9001 quality management system is based on eight principles. Describe any **THREE** ways this standard differs from the ISO 9126/ISO 25010 approach. **(9 marks)**
- c) In the early stages of project development software defects can be detected using a range of review techniques. Name any **TWO** of these techniques. **(4 marks)**

B6.

- a) Explain ways in which an agile approach differs from other approaches to software development projects. **(12 marks)**
- b) Briefly explain any one of the MoSCoW rules which are used in the prioritisation of increments in an agile development project. **(4 marks)**
- c) Explain the way in which increments (or sprints) are used in task planning in an agile based project. **(9 marks)**