

BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS BCS Level 5 Diploma in IT

IT PROJECT MANAGEMENT

Thursday 31st March 2016 – 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 are allowed in this examination.

Section A

Answer Section A questions in Answer Book A

A1

- a) List and explain very briefly the FOUR main criteria for assessing the success of a project.
(4 marks)
- b) As a project manager you will normally receive several different types of reports and other recorded information to help you control the progress of a project. Your project is falling behind schedule and you need to identify the main reason for this delay. Explain which reports, or other information, you might use to identify each of the following possible reasons:
- i) staff who are intended to be working full-time on the project are taken off sometimes to help resolve emergency situations on other projects;
 - ii) the original estimates of development times were too low
 - iii) the project scope has been extended to meet additional requests from users
 - iv) staff productivity is lower than expected.
- (8 marks)
- c) Identify FOUR different options that are available for bringing such a project back on schedule when it has been found to be running late. Explain the cost implications of each of these options.
(13 marks)

- A2** Your company has decided that it needs a new sales recording system and that an off-the-shelf package is the best solution. The main tasks have been identified and durations assessed as follows:

A	Draw up a functional requirements specification	4 weeks
B	Consider various relevant software packages and select one	3 weeks
C	Identify and specify the necessary hardware and communications equipment	2 weeks
D	Order the hardware and equipment	1 week
E	Identify the key package modifications needed to meet the functionality required	2 weeks
F	Modify the software package as necessary	8 weeks
G	Accept delivery and install all hardware and equipment needed for the package	10 weeks
H	Design a training plan	3 weeks
I	Set up a testing plan	3 weeks
J	Unit test all the amended package modules	4 weeks
K	Train the users	3 weeks
L	Full integration and acceptance testing	3 weeks
M	Implement the new system	1 week

- B cannot start until A is completed
- C, E, H and I cannot start until B is completed
- D cannot start until C is completed
- F cannot start until E is completed
- G cannot start until D is completed
- J cannot start until F, G and I are completed
- K cannot start until H is completed
- L cannot start until J and K are completed
- M cannot start until L is completed

- a) Draw an activity-on-node diagram for these 13 project tasks (A to M). Calculate, display and clearly label on the diagram, the earliest and latest start and finish times and float of each task

(11 marks)

- b) Describe how each of the following changes to task durations (on their own) would affect the critical path and project duration.

- Task B - reduced to 1 week
- Task F - increased to 11 weeks
- Task G - reduced to 7 weeks

(8 marks)

- c) Identify THREE items of information regarding the planning and progress of a project that are not shown on an Activity Network but could be displayed on a Gantt Chart.

(6 marks)

A3

- a) Describe FIVE techniques a project manager could use to identify risks. **(10 marks)**
- b) Explain the difference between a project risk and a business risk. **(4 marks)**
- c) Describe FIVE different tactics for managing a project risk. **(11 marks)**

Section B
Answer Section B questions in Answer Book B

B4

- a) With the aid of suitable diagrams briefly explain
 - i) Incremental building, **(8 marks)**
 - ii) Iterative development. **(8 marks)**
- b) Prototypes can be used in iterative agile development. Outline the advantages and disadvantages of using prototypes. **(9 marks)**

B5

- a) The Capability Maturity Model Integrated (CMMI) can be used to assess the level of process maturity for an organisation. With reference to CMMI:
 - i) draw and label a diagram showing the five maturity levels, **(5 marks)**
 - ii) for EACH of the FIVE CMMI levels, outline the typical practices you would expect to find. **(10 marks)**
- b) Quality management systems such as ISO9001 are concerned with the quality of organisational process. Critically evaluate up to FIVE features of ISO9001. **(10 marks)**

B6

- a) It is possible to categorise the power and interest of a project stakeholder using a 2x2 matrix diagram.
 - i) Sketch a suitable 2x2 matrix and label each category. **(4 marks)**
 - ii) For EACH of the FOUR categories of stakeholder that you can identify outline a suitable management approach that you might take. **(12 marks)**
- b) A project manager needs to effectively deal with customer expectations. Describe any THREE steps you can use in managing expectations **(9 marks)**