

BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS BCS Level 5 Diploma in IT

IT PROJECT MANAGEMENT

Monday 30th March 2015 – 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

You have been appointed IT manager to a company that sells and fits exhaust systems from a number of different manufacturers to a wide variety of motor vehicles. This is a very competitive market. The company must be able to answer immediately any telephone enquiry concerning its current stock and prices. In addition, good management information and the strict control of costs are essential.

The existing computer-based stock system, which was developed some time ago by the in-house IT section, is no longer adequate. A decision has been made by your senior management to adopt a new, more advanced stock recording and on-line enquiry system.

Some major exhaust system manufacturers offer such systems as an off-the-shelf (OTS) package, but your management are concerned that these packages might be too restrictive and thus not suitable for the wide range of exhaust systems that your company sells. The alternative would be to design and develop a new in-house system. However, your current IT section has no experience of on-line or cost-control systems.

- a) Write a memorandum to the your senior management setting out the advantages and disadvantages of acquiring an 'off-the-shelf' system as opposed to developing a new application in-house using your own staff, bearing in mind the scenario outlined above.

(15 marks)

- b) A decision has been made to acquire an off-the-shelf package. Describe the activities that would now be needed to select and acquire the software and then to set up a fully operational stock system.

(10 marks)

A2

You work for a small software house which has won a contract with a new client to design, develop and implement a replacement database system. The client is a medical research organisation and has a very small IT section. Your company has little experience in this business area. Your company has decided to use a new rapid development method for this project, and you have been appointed project manager.

- a) Explain the difference between project and business risk. Give THREE examples of EACH of these two categories of risk that might affect your company when undertaking the IT project described above. **(8 marks)**
- b) List and explain the TWO factors used in evaluating risk exposure. Explain how each of these factors might be assessed quantitatively. **(6 marks)**
- c) Risks can be assessed both quantitatively, as above, and qualitatively. Discuss the way in which risks could be assessed qualitatively and how these qualitative assessments could then be used to prioritise risks. **(6 marks)**
- d) Draw up a table illustrating the qualitative assessment of risk exposure for the THREE **project** risks that you have identified in part (a) above. **(5 marks)**

A3

A small accounting company needs to update and extend its existing time recording system. You are the project manager and have drawn up an outline project plan for the main project activities, as follows:

Activity	Duration (weeks)	Dependent on
A. Draw up and agree requirements	4	none
B. Select and order additional hardware	4	A
C. Develop and unit test new software	12	A
D. Install and test additional hardware	4	B
E. Test hardware backup and security procedures	4	D
F. Document new software	4	C
G. Install new software and system test	6	C, D
H. Go live	2	E, F, G

- a) Draw a fully analysed activity-on-node network diagram for this project, using a standard node convention, to display the duration, the earliest and latest start and end dates and the float for each activity. Supply a node key. Name, and display on the network diagram, the critical path and state the minimum duration in weeks. **(10 marks)**

- b) As the project proceeds, activity A was completed on time but problems occurred with both activity B and activity C. At the end of week 16 activity B is only just completed and activity C is only 75% complete (with another 3 weeks' work required, meaning that it will finish at the end of week 19). You are satisfied that all these problems are now resolved and the remaining project activities can progress at the originally planned rate.

Draw a Gantt chart for the project to show clearly the progress to date (up to the end of week 16) and the revised schedule for the remaining project activities. Mark clearly, and name, the critical path for these remaining activities.

What is the new end date for the project?

(15 marks)

Section B

Answer Section B questions in Answer Book B

B4

- a) Explain the difference between quality control and quality assurance. **(5 marks)**
- b) Describe up to SIX different types of testing that might be carried out during a software development project. Explain how each type of testing contributes to the overall quality of the project's deliverables. **(12 marks)**
- c) Identify and briefly explain the FOUR activities, apart from testing, that could be used to ensure the quality of the intermediate and deliverable products of software development project. **(8 marks)**

B5

- a) One key characteristic of a successful project is that it is completed on time. Identify THREE other key characteristics of project success, explaining why they are important. **(6 marks)**
- b) Identify THREE important reports needed to monitor and control a project. For each report identify who would produce the report, to whom it would go, and its purpose. **(12 marks)**
- c) Describe the process of dealing with change requests. **(7 marks)**

B6

- a) Describe what happens in each of the FIVE stages of team formation. **(10 marks)**
- b) Name and describe briefly THREE management styles. **(9 marks)**
- c) You have been appointed project manager of a new project team that is going to develop a finance system which MUST be implemented before the end of the tax year. The team is made up of four experienced analysts who have worked on projects like this many times before in other companies and six very intelligent programmers who have recently graduated from university. The team will meet for the first time tomorrow and you want to decide on the most appropriate management style for this project.

How will the factors in this scenario influence your choice of management style and why will they influence it?

(6 marks)

