BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT

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IT PROJECT MANAGEMENT

Friday 2nd October 2015 – Afternoon

Answer **any** 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 are allowed in this examination.

Section A

Answer Section A questions in Answer Book A

A1

a) List FIVE techniques for obtaining user requirements.   **(5 marks)**

b) Once the user requirements are known you have a choice between buying an off-the-shelf package (OTS) and building a new system. Describe FIVE factors you would consider when deciding which option to take.   **(10 marks)**

c) Explain which stages of a project to build a new system and a project to implement an OTS would be the same and which ones would be different.   **(10 marks)**

A2

a) What are the FIVE key steps in the risk management planning process?   **(10 marks)**

b) Draw a template form for the entries in a risk register clearly labelling the sections.
                    (9 marks)

c) When deciding who would be a suitable risk owner for a particular risk what THREE factors might you consider?   **(6 marks)**

A3

a) Briefly describe FOUR estimating techniques that can be used on an IT project. **(8 marks)**

b) Choose an estimating approach, from the ones you have identified above, suitable for the following scenario, justifying your choice compared to the other approaches.

You are a member of a 30 person systems development department in a new IT services company. The IT Manager is a very experienced professional with many years' experience of leading IT change and new product development. You are one of four IT Project Managers in the department. The rest of the IT department is made up of people from a variety of other IT companies who have been recruited for their knowledge of programming, database design and networking. Your first assignment is a project to develop a new online booking system for a travel company. This is your biggest and newest client. The project will involve elements of design, coding, database creation and connectivity over a number of remote sites. You have been asked to estimate the effort involved in the project so a successful and profitable bid can be made. **(8 marks)**

c) Some estimating methods use input variables or parameters which are called drivers. Describe three drivers that could be used in this parametric approach. **(9 marks)**

Section B

Answer Section B questions in Answer Book B

B4

a) Define the term "quality" as applied to an IT project. **(3 marks)**

b) Identify THREE differences between quality assurance and quality control. **(6 marks)**

c) At what stage in the project should the project test plan be created and test cases prepared?

(3 marks)

d) Describe FOUR techniques for carrying out quality control on a software system during development **(8 marks)**

e) In addition to software what else can be tested on an IT project? **(5 marks)**

B5

a) Name FOUR criteria by which a project can be judged a success. **(4 marks)**

b.) Your company has decided to develop a new in-house computer system and the project plan has been prepared. Explain briefly the FOUR key steps (which might then be repeated) in the project control life cycle. **(5 marks)**

c) A project board has been set up and will meet monthly. You are the project manager and must prepare a report for each meeting.

Describe EIGHT different items of information that you might expect to include in each such monthly report. **(16 marks)**

B6

The sales department in your company, who have their own in-house sales system, are being relocated to new offices where they will also have a new server–based sales database system. The IT section have set out an outline plan for the IT aspects of the move, with 9 main tasks (with estimated durations):

A	order and deliver the new database system and server	4 weeks
B	design and install the network infrastructure	7 weeks
C	order, deliver and install new PCs and printers	9 weeks
D	test the database system, server and network	3 weeks
E	test the PCs with the server and network	2 weeks
F	copy existing sales data to the new database system	1 weeks
G	copy other existing PC software to the new PCs	3 weeks
H	test all software and database on the new PCs and server	1 weeks
I	train users	2 weeks

Tasks A, B and C can be undertaken at the same time, but A and B must be completed before D can start. Tasks C and D must be completed before E can begin. E must be completed before F and G can start. F and G can be undertaken at the same time, but both must be completed before H can start. I must follow H.

a) Draw a network diagram (Activity-on-Node) for this project, showing (on the diagram) the earliest and latest start dates, the earliest and latest finish dates, the duration and the float for each task.

Provide a node key explaining the layout and contents of the nodes used in your diagram.

Draw a Gantt chart for the same project tasks, showing each of these tasks, all dependencies and float, and each task's duration.

Highlight the critical path on each diagram.

What is the total duration of this critical path? **(17 marks)**

b) Discuss briefly the most significant differences between the two types of diagram, and highlight TWO advantages of the Gantt chart and TWO advantages of the network diagram

(8 marks)