BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT

IT PROJECT MANAGEMENT

Friday 28th September 2018 - Afternoon
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) Project managers can have a range of leadership styles that might be used in managing a development project. Describe THREE different types of leadership styles giving examples of where they might be adopted.

(12 marks)

b) You are tasked with the management of a software development team and note that the team members seem disinterested and lack motivation. Describe THREE ways in which you might change team management methods and job design to improve motivation.

(9 marks)

c) Explain why it is desirable for a project manager to have good communication skills.

(4 marks)

A2.

a) Risk reduction and risk transfer are two techniques that can be used to manage risk in a project. Using suitable examples, explain both risk reduction and risk transfer.

(10 marks)

b) Explain and give an example of how contingency planning can be used in risk management.

(6 marks)

c) Describe with the aid of a sketch, an outline of a typical project risk record template. Include within the template an example of the data it might contain.

(9 marks)

A3.

a) ISO9126 and its successor ISO25010 quality standards refer to external software product characteristics. Describe any FOUR of these characteristics.

(12 marks)

b) Discuss some of the difficulties in making an overall assessment of product quality from the combined ratings of product characteristics.

(8 marks)

c) Explain ways in which software quality is distinguished from other types of product quality.

(5 marks)

Turn Over

Section B

Answer Section B questions in Answer Book B

B4.

For a particular project it has been decided that the project manager should produce a report for the project board (or steering committee) at the end of each four-week period.

a) Describe SIX items of information that should appear on this report.

(9 marks)

b) Explain at least FOUR different ways in which the project manager could obtain the data used to generate the information in the report.

(9 marks)

c) A problem with the project is that the users keep asking for changes to the requirements. Discuss the likely reasons for this and what might be done to manage this problem.

(7 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 and describe FIVE key actions in the change management process, when dealing with change requests. Who is likely to be responsible for each action?

(8 marks)

c) One method of implementing a project is known as immediate or direct changeover. Summarise the main advantages and disadvantages of this approach. Identify THREE other possible implementation methods and describe ONE advantage and ONE disadvantage of each of these three.

(11 marks)

Turn Over

B6.

A small trading company has decided to commission a small local software house to develop a new order processing system. This will replace the existing system which is run by an external service provider. The system will be used by three different sections of the company: Order Processing (OP), Invoicing (IP) and Receipts Processing (RP), each of whom have their own specific requirements and will require online access to the new system.

The outline plan includes the following main activities:

A, B, C. Gather requirements for each of the three company sections. This can be done in parallel for each section, and will take 5 weeks for the OP section, 4 weeks for the IP section and 3 weeks for RP section.

D. Consolidate requirements. This is dependent on the completion of the activities A, B and C above and will take 2 weeks.

E. Design software. This is dependent on requirements consolidation (activity D) and will take 4 weeks.

F. Build and test software. This is dependent on software design (E) and will take 7 weeks.

G. Order and delivery of communications equipment and hardware. This is also dependent on requirements consolidation (D) but can run in parallel with the software design (E) and will take 10 weeks.

H. Install communications equipment and hardware which is dependent on order and delivery (G) and will take 2 weeks.

I. Design acceptance testing cases – also dependent on requirements consolidation (D) and will take 6 weeks.

J. Integration testing – dependent on both build and test software (F), and the installation of communications equipment and hardware (H) and takes 3 weeks.

K. Acceptance testing – dependent on acceptance test design (I) and integration testing (J) and takes 3 weeks.

a) Calculate the earliest and latest start and finish times and the floats for each of the above activities and present them in a table. Identify the critical path and state the minimum duration for the project.

(10 marks)

b) Just before the project starts, it is realised that, due to the absence of key staff, the requirements gathering for the OP section (activity B) will now take 5 weeks. Also, that the build and test software task (F) will now take 9 weeks.

Re-calculate and re-present the table that you produced for part a, and identify any other changes that might result from these changes.

(8 marks)

c) Discuss THREE advantages of using an activity-on-node network diagram and THREE advantages of a Gantt chart to display the information above.

(7 marks)