Section B
Answer Section B questions you attempt in Answer Book B

B4.

a) Belbin has described a range of different personality type roles that can be found amongst members of a project team. Describe the strengths and weaknesses of **FIVE** of these personality types.

(15 marks)

b) You have been asked to manage a project team where the team members are reported to lack motivation and staff turnover is high. You have been informed that you cannot consider offering team members extra salary or extra holiday time. Explain **THREE** other ways in which you might improve motivation and staff retention.

(10 marks)

B5.

a) Describe the typical steps used in a function point method to estimate the size of a software development project.

(9 marks)

b) Describe the purpose and contents of a highlight report for presentation to the project board.

(7 marks)

c) Monitoring progress has revealed that the project you are managing is not achieving its planned stage of progress. Describe the advantages and possible disadvantages of **THREE** control strategies you might consider using to get the project back on its planned level of progress.

(9 marks)

B6.

a) Describe **THREE** examples of the types of quality attribute which can be specified for a software product.

(9 marks)

b) Outline the general features of a quality management system.

(7 marks)

c) Describe **THREE** of the key principles of the ISO9001 quality management standard.

(9 marks)

End of Examination

BCS THE CHARTERED INSTITUTE FOR IT

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IT PROJECT MANAGEMENT

Tuesday 11th May 2021 - Morning

Answer **any** FOUR questions out of six. All questions carry equal marks.

Time: TWO hours

Answer any **Section A** question you attempt in **Answer Book A**
Answer any **Section B** question 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 you attempt in Answer Book A

A1.

A large company making windscreen wipers for a wide range of cars is updating its sales system by buying in new software. The sales director has been reluctantly convinced by his senior sales manager that it is a good idea. The company's IT manager wants responsibility for this new system but is inexperienced in project management. The lead analyst/ programmer is technically excellent and now wishes to gain experience of project management. The recently promoted chief executive of the company was previously an experienced project manager. He has a personal assistant, who is a very able administrator and has worked for the company for 20 years. The software vendor offers a full range of implementation services, including support, project management and consultancy.

a) Draw a generic project organisation diagram for a project of this type, showing **FIVE** key project roles. Briefly describe the key responsibilities of each role.

(10 marks)

b) Choose **THREE** of these roles from your diagram and identify which of the persons named in the above scenario would be best suited for each of these roles. Explain why you have chosen them to undertake this role.

(15 marks)

A2.

Your company is expanding rapidly and has decided to buy in and install an off-the-shelf (O-T-S) sales package to replace the existing in-house system.

This will need new equipment with some additional network cabling in some offices. You are to manage this project and you have identified 6 key project stages:

i) Specification of requirements;
ii) Package selection and modification;
iii) Hardware and cabling order, delivery and installation;
iv) Acceptance testing;
v) Training;
vi) Data take-on and implementation.

a) Identify at least **TWELVE** different products that could be produced at the various stages, showing them in a product breakdown structure (PBS) diagram for the project. This should illustrate how the components of products are shown.

(9 marks)

b) Draw up a work breakdown structure (WBS) for the project. This should contain at least **THIRTEEN** different activities and at least **TWO** levels of detail.

(8 marks)

c) Explain the purpose of and the main differences between a WBS and a PBS, illustrating your answer with at least **TWO** examples from this project.

(8 marks)

A3.

Your company is moving to a new building and there will be a different Wi-Fi-based communications structure. An outline plan for the IT aspects of this move has been drawn up with the following main activities:

	Activity	Weeks
A	Inspect the new building, assess and list all required Wi-Fi facilities and hardware.	3
B	Order and deliver all Wi-Fi facilities and hardware.	10
C	Identify, order and deliver replacement Wi-Fi-enabled PCs, printers, servers and other hardware.	8
D	Order and deliver all required office equipment.	13
E	Test existing and new hardware with all Wi-Fi equipment.	1
F	Test new hardware with all existing operating and applications software.	4
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 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.

a) 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)

b) The office equipment (task D) takes one week 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)

c) 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)

[Turn Over]