Information technology in a global society
Higher level
Paper 3

Tuesday 17 May 2016 (morning)

Instructions to candidates
• Write your session number in the boxes above.
• Do not open this examination paper until instructed to do so.
• Read the case study carefully.
• Answer all questions in the boxes provided.
• The maximum mark for this examination paper is [30 marks].
Answer all the questions in the boxes provided.

Refer to the Smart Homes case study and to your own related research in responding to the following questions.

1. Describe two features of a smart home that could be used to help the elderly or people with disabilities. [4]
2. (a) In addition to those provided in the case study, construct one If This Then That (IFTTT) recipe that would trigger an action by a device in a smart home. [2]

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(b) Explain two ways that an unreliable device or a network failure can cause problems in the smart home or for its occupants. [4]

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Turn over
3. As increasing numbers of people will be living in smart homes, the nature of the Human–Computer Interface (HCI), the means by which the occupants interact with the device(s), will be critical to the success of the smart home.

To what extent is the success of the smart home dependant on the usability of the HCI of the device manager (lines 46–52)?
Your response to question 4 must include evidence of independent research linked to the Smart Homes case study.

4. Brix Homes is considering whether to use a third party provider, Intelligent Homes Services, to set up a proprietary cloud-based portal service for new houses that Brix Homes builds. This will allow the owners of these smart homes to control devices using the web portal from either inside or outside of the house (lines 65–73).

Discuss whether Brix Homes should use Intelligent Homes Services to set up a proprietary cloud-based portal service for new houses. [12]