

GCE 2004

June Series



Mark Scheme

Design and Technology: Systems and Control Technology

(Subject Code 5556 Unit 3)

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The answers given in the following mark schemes are neither exhaustive nor exclusive. Candidates whose answers do not appear directly on the mark scheme, but who have demonstrated knowledge, understanding, or skills relevant to the question will receive appropriate credit for their answers.

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Design and Technology: Systems and Control Technology: Unit 3

Summer Examination 2004

Question 1

- (a) Modern lifestyle, more people snack, greater mobility therefore people go more places where they might require refreshment, higher labour costs – minimum way – more expensive to run canteen/café, cheaper electronic control for the machine, greater range of pre-packed foods, changed eating habits etc. (2 x 3 marks)
- (b) Greater flexibility, speed, close proximity, easy availability etc. (2 x 2 marks)
- (c) More outlets, cheaper running costs, lower overheads, etc. (2 x 2 marks)
- (d) Availability of electricity, water, security, number of potential customers, customer requirements, possible area for consumption etc. (3 x 2 marks)

Question 2

- (a) Could include input of money, checking of money, selection of drink type, decisions on – coffee – tea – milk – sugar, delivery of cup, delivery of ingredients, delivery of water. 6 Sequence
2 Symbols
- (b) (i) Suggest 3 for suitable storage (3 marks)
Indication of appropriate sizes (1 mark)
- (ii) Release of a single cup (2 marks)
Retention of stored cups (1 mark)
Indication of appropriate sizes (1 mark)
(2 x 4 marks)
- (iii) Release of water (2 marks)
Retention of water (3 marks)
Measuring System/Appropriate sizes (3 marks)
- (c) Identification of mark allocation
- (i) Quality of communication (8 marks)
- (ii) Development of the system (20 marks)
- (iii) Originality and innovation (4 marks)
- (iv) Appropriateness of materials and components (8 marks)
- (v) Methods of construction (8 marks)