UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2012 question paper

for the guidance of teachers

0420 COMPUTER STUDIES

0420/33   Paper 3, maximum raw mark 60

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

* Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2012 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

1 (a) Any **three** points from, max 3 marks:

- Gantt chart
- PERT (Program/Project Evaluation Review Technique) chart
- Project management software
- Spreadsheet (software)

(b) one mark for identifying why the method identified would be suitable for the holiday park [4]

one mark for a further explanation that matches chosen method.

   (i) Questionnaire for guests e.g.
- ensures that all the guests are asked the same questions
- so results from many responses can be analysed
- no need for analyst to be present
- more efficient as there are many guests
- can provide incentives for guests to return questionnaire

   (ii) interviewing for reception staff e.g.
- allows questions to be tailored to the individual members of (reception) staff
- can ask supplementary questions
- can ask for clarification
- (reception) staff may tell you things that you haven't identified as issues

Max 4 overall, max 2 for each part

   (iii) Any **one** from
- observation
- document search [1]

(c) One mark per device, one **mark** per reason why it would be suitable for the for the holiday park [4]

- Wireless adapter/Network Interface Card/NIC
- to allow a computer to access the LAN (from anywhere within the holiday park)
- Wireless Access Point/WAP/bridge
- to extend the reach of the LAN as the holiday park covers a large area
- (Wireless) router/(Wireless) hub
- to enable computers in the holiday park to connect to the LAN/….to relay signals to the computers on the LAN
- Host computer/Server
- to manage the LAN
- (hardware) firewall
- to restrict access to bookings only

(d) (i) Max **four** marks

one mark per improvement seen on screen (max two marks)
one for explanation must match screen 1 e.g.

Seen on Screen	**Explanation**
– increase size of font	– to improve readability
– use a different font	– to improve readability
– add suitable pictures	– to make the screen more attractive/ understandable
– add suitable heading	– so the user knows what this screen is for

(ii) Max **four** marks
one mark per improvement seen on screen (max two marks)
one for explanation must match screen 2 e.g.

Seen on Screen	**Explanation**
– password entry to system	– to improve security
– move instructions	– for a better start point
– change/lighten colour of box	– to attract attention better
– move box next to instructions	– to make the action clearer

(e) One mark for every correct symbol   [4]
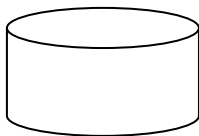
Process
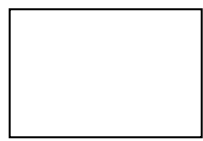
Keyboard entry

or

Sort
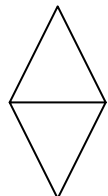
Disk storage

(f) One mark for per process, max 4:
- Guest) selection of activity (type/time)
- <u>Organiser</u> selecting a of list of participants to print
- Checking for available places
- Booking activity/Reserving places
- Updating correct holiday home account
- Checking holiday home number/password

One mark per input, max 3
- (Guest) selection of activity (type/time)
- holiday home number/password
- activity details
- participant details (number, names, ages)

One mark per data store, max 2
- activities
- participants
- holiday home accounts/guest details
- database *(only if none of the above are given)*

One mark per output, max 2
- List of Activities (screen not paper)
- Confirmation of booking (screen not paper)
- List of participants for an activity (paper)

(g) up to **three** points from: [3]
- login/password
- use of firewall
- checking of MAC addresses/station ids
- Wired Equivalent Privacy/WEP/wireless security/encryption
- Network name NOT broadcast
- anti-spyware/ anti-virus software

(h) up to **three** points from [3]
- can be tailored to the meet the requirements for activity booking
- in contact with the actual programmers if there is a problem
- software can develop as it is used
- doesn't contain unwanted features

(i) One mark per example suitable for number of participants, one mark per reason [6]

- 36 – this checks that system can accept appropriate inputs
- 50 – rejected boundary value
- 49 – accepted extreme value
- –5 – this checks that negative numbers are rejected
- w – this checks that data has the right format

(j) One mark per point, one mark per reason e.g.

One mark per point, one mark per reason

- how to load the software
- so it can be installed ready to use

- how to run the software
- so the application can be started for regular use

- frequently used general tasks
- how to save/delete/amend/update (etc.) files

- typical screen layouts
- so that users know what to expect

- typical printouts expected
- so that users know what hard copy is available

- sample runs
- provides knowledge of what to expect in everyday use

- show how to troubleshoot/what to do if errors occur
- so that common problems can be easily sorted out

- FAQs/frequently asked questions
- so that guests or reception staff can use the system without asking for help

- hardware requirements for the system
- so that there are no problems with installation

- software requirements to run the system
- so that the application works as expected

- how to carry out specific tasks
- such as printing activity lists/ booking an activity etc.

- how to use a touch screen
- for selecting an activity

etc.

(k) One mark per advantage, one mark per suitable example that exactly relate to the holiday park (the following are just examples) [6]

- more flexible booking – guests can book from many different places
- less likelihood for information to be lost – no paper lists that need to be kept at reception for a week
- fewer staff are now required – guests do their own booking not the reception staff
- fewer queues – more terminals available for guests to book from
- less storage space required – booking forms stored electronically
- greater flexibility for guests – bookings can be made up to half an hour before an activity starts instead of an hour

(I) up to **two** points from

- consider if objectives of new system have been met
- look at results from tests
- discuss with reception/activities whether or not new system works
- look at print outs etc. to see if system produced the correct outcomes
- ask the guests whether or not system was easy to use