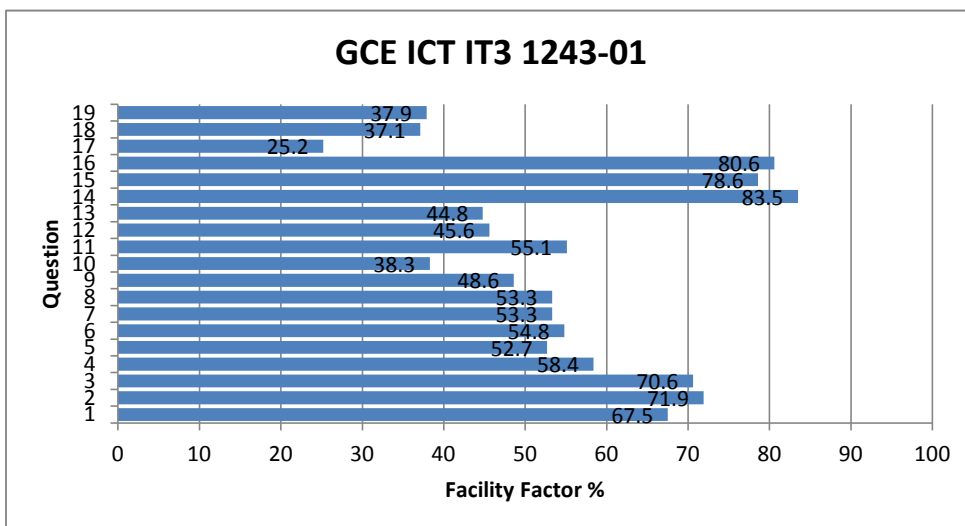


GCE ICT IT3 1243-01

All Candidates' performance across questions

| Question Title | N | Mean | SD | Max Mark | FF | Attempt % |
|----------------|------|------|-----|----------|------|-----------|
| 1 | 3159 | 3.4 | 1.3 | 5 | 67.5 | 99.9 |
| 2 | 3159 | 2.9 | 1.2 | 4 | 71.9 | 99.9 |
| 3 | 3160 | 2.8 | 1.2 | 4 | 70.6 | 99.9 |
| 4 | 3119 | 3.5 | 1.7 | 6 | 58.4 | 98.6 |
| 5 | 3082 | 2.6 | 1.3 | 5 | 52.7 | 97.4 |
| 6 | 3120 | 1.6 | 1.1 | 3 | 54.8 | 98.6 |
| 7 | 3071 | 2.7 | 1.7 | 5 | 53.3 | 97.1 |
| 8 | 3022 | 2.1 | 1.4 | 4 | 53.3 | 95.5 |
| 9 | 3070 | 1.9 | 1.3 | 4 | 48.6 | 97.1 |
| 10 | 2954 | 2.3 | 1.3 | 6 | 38.3 | 93.4 |
| 11 | 3051 | 3.3 | 2.2 | 6 | 55.1 | 96.5 |
| 12 | 2936 | 2.7 | 2.4 | 6 | 45.6 | 92.8 |
| 13 | 3024 | 2.7 | 2 | 6 | 44.8 | 95.6 |
| 14 | 3131 | 6.7 | 1.7 | 8 | 83.5 | 99 |
| 15 | 2655 | 1.6 | 0.7 | 2 | 78.6 | 83.9 |
| 16 | 2664 | 5.6 | 1.9 | 7 | 80.6 | 84.2 |
| 17 | 2497 | 0.3 | 0.4 | 1 | 25.2 | 78.9 |
| 18 | 2597 | 3 | 2.5 | 8 | 37.1 | 82.1 |
| 19 | 571 | 6.8 | 3.9 | 18 | 37.9 | 18.1 |



SECTION A

Answer all questions.

0

1

A novice user and an expert user have different needs when using a computer. Discuss these differing needs and then describe how different *Human Computer Interfaces* (HCI) can address these needs. [5]

0 1 For an expert user, he would need to perform tasks that are highly skilled. One way to address this is by using a command line. This differs from a novice user because it is a very advanced function and difficult to learn.

A novice's HCI would have to be user friendly. This can be done by using consistent signposting which would help not confuse the ~~no~~ novice user when they are operating the system.

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1.
 - A novice user is someone who has ~~no~~ no knowledge of ^{ICT facilities} ~~software~~. A need of novice user would be the use of supporting facilities, in order to give them an understanding on how to perform a task. For example, on-screen help ~~files~~ ^{are} facilities ~~to~~ that present results that are in relation to the user's queries; therefore, on-screen help facilities can support users to ~~a~~ overcome difficulties they may encounter. Another requirement from novice users would be to easily adapt to the HCI device as soon as they use it. For example, the use of tutorials in HCI devices could present how to access and use all features of the HCI device; hence, the tutorials will provide novice users with an insight on how to use each feature of the HCI device.
 - An expert ~~user~~ user is someone with vast knowledge of ICT facilities. A need of expert users would be to complete the task as ~~soon~~ as possible. For example, a HCI could enable key shortcuts, which are commands that are executed after ~~the~~ the user enters a combination of keys; therefore, ~~not~~ as long as the expert user memorises the key shortcuts, they could fulfil tasks at a high-speed (such as "CTRl + C" for copying a file and "CTRl + V" for pasting the copied file). Another requirement from the expert user is the availability of all features ~~in~~ in a HCI. For instance, in terms of "Computer Aided Design", an architect would need all features in order to create building designs. Another requirement from ~~an~~ an expert user is the capability to customise menus. ~~to~~ For example, the expert user would remove items they ^{wouldn't} ~~would~~ need and keeping features that's required.

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01) A novice user would use a Human computer interphase for the ease of learning. An expert user would use a ~~best~~ human computer interfaces to get a task done as fast as possible. A human computer interface used for a novice is on-screen help for example ~~then~~ a wizard, when using mail merge which will give a step by step approach on how to do a task. A Human Computer interface used for an expert would be ~~short~~ ~~at~~ Shortcut keys for example Ctrl+P is used to print a document, this saves time ~~same~~, ^{man} clicking on the print icon.

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SECTION A

Answer **all** questions.

0

7

Many large data processing projects now make use of distributed computing. Explain what is meant by *distributed computing* and describe an application which uses it. [5]

Q 7 Distributed computing is when a number of computers are networked together. They each work on solving the same problem. Each computer shares processing (storage) and bandwidth.

□ Use :-

1) SETI is a programme to search for Intelligent life outside earth. To do this a radio telescope is used. In order to get a narrow band-width loads of processing power is needed

~~2) It is also used~~

2) It is also used for the development of flu vaccinations

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9 7

Distributed computing is when a large number of computers in different locations are all networked together all trying to solve the same problem, using the same bandwidth.

One application of distributed computing would be the SETI project. This is where the different computers are all looking for life outside of Earth using a narrow bandwidth. Instead of using a large and expensive supercomputer many different home computers are all networked together that will all share the same narrow bandwidth to search for life outside of Earth.

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Distributed computing is where there are many computers linked together through the use of one large network ^{server}. An application which could use ~~this~~ distributed computing ~~may~~ would be ~~the~~ a doctor's surgery as they may need ~~to~~ to access certain files on patients which would be ~~useful~~ useful for another site in case the patient is transferred. ~~This is~~ With the computers linked to one network they ~~may~~ would be able to access this information through the system.

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SECTION A

Answer all questions.

| | |
|---|---|
| 0 | 9 |
|---|---|

A global market research company uses *File Transfer Protocol* (FTP). Describe in detail what is meant by FTP, state a use and give an *advantage* to the company of using FTP. [4]

0 9

FTP (File Transfer Protocol) allows the user to send ~~files~~ files through the use of the internet to any other user, ^{which would also have} ~~with~~ access to ~~internet~~ ~~which can~~ the internet. This could be the use of for example 'e-mail' which would allow a user to send multiple files and messages to another internet user ~~with~~ within a matter of seconds. ~~which can~~

A ~~company~~ global market research company may want to implement FTP as it would ~~sp~~ increase the speed of ~~com~~ communication between the users as they would be able to send messages and files to another user which could be in ~~an~~ another country in seconds. Where compared to the ~~post~~ postal service ~~is~~ the message would take days or weeks to get to another ~~country~~.

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o 9

File Transfer Protocol is a set of standard rules or protocol that people will follow when moving files from one location to another using the internet.

One use of FTP would be for a company to upload a website onto the internet or they could be downloading a video or information from the internet onto their computer.

An advantage of using FTP is that there is no file size limit, that means that they can move any size file that they like. In which if they did it by any other method there would be a restriction.

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File transfer protocol is an internet protocol by which files are transferred from one computer to another. ~~An advantage of FTP is that~~
One use of FTP may be to ~~send~~ transfer a large document, such as a database full of the company's employees details from one office to another. An advantage of this is that ~~to~~ you are not limited to file size, like you are in email. The company would be able to send a ~~much~~ larger amount of files than they would when they previously used emails alone.

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