SUBSIDIARY ICT S850/1
S.6 REVISION QUESTIONS

1. What is Information Technology?
Explain the merits and demerits of IT

2. Give **two** examples of IT applications in **each** of the following areas.

a. Home
b. School
c. Office
d. Bank
e. Entertainment
f. Industry

3. Give **two** advantages and **two** disadvantages of computer-based training.

4. Describe briefly the differences between data and information.

5. Give **one** example for each of these concepts.

6. What is meant by information processing cycle?

7. Give **two** advantages and **two** disadvantages of using computer for information processing.

8. Suggest **four** considerations before using computer for information processing.

9. Describe briefly the differences between batch processing and real-time processing. Give **one** real life example for each of these information processing methods.

10. Suggest **two** ways to improve the speed of a personal computer system.

11. Describe briefly the difference between a server and a client computer on a network.

12. Give **two** examples of mobile users.

13. Suggest **two** additional hardware devices that a mobile user may need in addition to the notebook computer for communications.

14. Suggest **two** real-life applications that may need the processing power of a supercomputer.

15. What is a Personal Digital Assistant (PDA)?

16. State **two** differences between a PDA type computer and a desktop computer.

17. Suggest **two** advantages of a notebook computer over a desktop computer. Then, suggest **two** disadvantages of a notebook computer when compared with a desktop computer.

18. What is a workstation? What is a server?

19. Suggest **one** public service that you can use a workstation to access the information stored on a server.

20. Describe briefly System Software and Application Software

21. Give **two** examples for each of the following hardware types.
Input devices
Output devices

Storage devices

22. What is a driver program?
23. Give **one** example of hardware device that may serve more than one purpose (e.g., input and output).
24. Give **one** advantage of serial connection over parallel connection.
25. Give **one** advantage of parallel connection over serial connection.
26. Suggest a reason why the transmission speed of standard serial connection is usually slower than that of parallel connection.
27. Suggest **two** kinds of connection ports, in addition to serial and parallel ports, that can be found in newer computers today.
28. State whether the following are hardware or software.

    a) Floppy drive
    b) Floppy disk
    c) Hard disk
    d) A PowerPoint presentation
    e) A game program stored on a CD-ROM
    f) The CD-ROM that stores a game program
29. Describe **two** occasions that people have to fill in forms.
30. Suggest **two** characteristics for a well-designed data capture form.
31. Suggest **one** suitable input device for each of the following tasks:
    a. To enter instructions in a command line user interface.
    b. To move the pointer in a graphical user interface.
    c. To input text or graphics from hard copies into electronic format.
    d. To convert characters from graphic format back to editable text format.
    e. To mark multiple-choice type answer sheets in an examination.
    f. To process cheques in a bank.
    g. To read the bar codes of products in a supermarket.
    h. To record human voice into the computer.
32. Give **two** advantages of using a digital camera over a traditional film camera.
33. Name **two** factors that determine the quality of a scanner.
34. Name **two** input devices that are necessary for conducting a videoconference.
35. Give **two** advantages of using an automatic input device (e.g., a OMR reader) over manual input.
36. Give **two** advantages of using a barcode reader at a point of sale terminal (POS).
37. Give **two** advantages and **two** disadvantages of using voice recognition for input.
38. Give **two** real life applications of sensors for detecting external changes in an environment.
39. What is a dumb terminal? Give **two** examples of a dumb terminal.

40. Give **two** examples of input devices and **two** examples of output devices on a desktop computer.
41. Give **two** advantages of a LCD monitor over a CRT monitor, and then give **two** advantages of a CRT monitor over a LCD monitor.
42. Give **two** advantages and **two** disadvantages of display devices (e.g., a monitor).
43. Give **two** advantages of dot-matrix printers over laser printers and inkjet printers.
44. Give **two** advantages of printers over display devices, and then give **two** advantages of display devices over printers.
45. Give **one** advantage and **one** disadvantage of a multifunction device.
46. Suggest **one** output device for each of the following tasks:
    a. To print a high volume of hard copies.
    b. To print a color photograph at home.
    c. To print multi-part forms in a department store.
    d. To print a large-size architectural drawing.
    e. To produce music or voice output.
47. What is a peripheral? Give **two** examples of peripheral devices for a desktop computer.
48. Describe briefly the functions of the control unit and the arithmetic/logic unit inside the CPU.
49. Describe briefly the **four** basic operations of the machine cycle in the control unit.
50. What are the **three** operations carried out in the arithmetic and logic unit? Describe briefly about these three kinds of operations.
51. What are registers? Describe briefly about **two** kinds of registers in the CPU.
52. Name **four** home appliances that contain a microcontroller.
53. How is parallel processing different from pipelining?
54. Give **one** advantage of serial port over parallel port, and then give **one** advantage of parallel port over serial port. Name **one** hardware device that is connected to the serial port, and another that is connected to the parallel port.
55. How is data bus different from address bus?
56. How is system bus different from expansion bus?
57. How is bit different than byte? How many bytes are there in one megabyte (MB)?
58. How is volatile memory different from non volatile memory? Give **one** example for each of these memory types.
59. Describe **two** differences between RAM and ROM.
60. How does memory cache speed the process of computing?
61. Name **two** kinds of devices that usually have to use flash memory.
62. Name **two** kinds of configuration information stored inside the CMOS on the motherboard.

63. Give **two** reasons why secondary storage is necessary.
64. Give **four** examples of secondary storage medium.
65. Give **four** examples of secondary storage device.
66. Give **two** advantages and **two** disadvantages of using floppy disk.
67. Give **two** advantages and **two** disadvantages of using hard disk.
68. Give **two** advantages of floppy disk over hard disk.
69. Give **two** advantages of hard disk over floppy disk.
70. Suggest **two** reasons why the access time of a hard disk is generally faster than a floppy disk.
71. Give **two** advantages of compact disc over floppy disk.
72. Suggest **two** ways to protect data stored on a floppy disk.
73. Describe briefly the differences between CD-ROM, CD-R, and CD-RW.
74. Give **two** advantages of the CD-ROM version of a 12-volume set Encyclopedia. Give **two** advantages of the book version of the same set of Encyclopedia.
75. Give **two** distinctions between using a magnetic disk and a magnetic tape as a storage medium.
76. Explain briefly why increasing the main memory may improve the performance (e.g., speed) of a computer system.
77. What is a memory address?
78. How is volatile memory different from nonvolatile memory? Give **one** example for each of these memory types.
79. Why main memory is often called "Random Access Memory (RAM)"?
80. Explain briefly how memory cache helps to speed up computer operations.
81. What kind of program is normally contained in a ROM chip? Explain briefly the main purpose of such a program.
82. What does 'bit' stands for? Explain briefly what is a bit? What is a 'byte'? Explain briefly why a byte is more informative than a bit. How many bytes are there in a Kilobytes?
83. Describe the differences between freeware, shareware, and public-domain software based on their costs and copyright restrictions.
84. How is system software different from application software?
85. Give **two** advantages and **two** disadvantages of a command line user interface.
86. Give **two** advantages and **two** disadvantages of a graphical user interface.
87. How is a cold boot different from a warm boot? Describe how to perform a warm boot under the Windows environment?
88. Describe briefly the booting process of a personal computer using the Windows operating system.
89. Name **four** functions that are normally carried out by an operating system.

90. What kind of information do the BIOS of a personal computer contain?
91. Name **four** kinds of configuration information stored in the CMOS of a personal computer.
92. What is a device driver? Name **two** devices that may require the installation of device driver to work properly.
93. Name **two** kinds of information normally required to log on to a multiuser operating system.
94. Describe briefly why virtual memory is slower than physical memory.
95. Give **two** advantages of using a print spooler.
96. How is multitasking different from multiprocessing?
97. Explain briefly why system software is also important for application software to work properly.
98. Name **two** kinds of jobs that are most appropriate to use a word processor.
99. Name **four** special features that are normally provided with a word processor.
100. State **two** ways how a word processor works differently when compared with a mechanical typewriter.
101. Give **two** advantages of using a word processor over a mechanical typewriter.
102. How is moving text different from copying text?
103. How is relative addressing different from absolute addressing in a spreadsheet program?
104. Name **two** special features that are normally provided with a spreadsheet program.
105. Give **two** advantages of using a spreadsheet program over a manual worksheet.
106. Suggest a suitable chart type for each of the following presentations.
    a. Monthly expenditures on different categories of a family
    b. Number of car accidents in each month throughout a year
    c. Distribution of heights of students in a school
    d. Body temperatures of a patient recorded every two hours on a particular day
107. Give **two** examples of paper databases and **two** examples of computerized databases.
108. Give **two** applications of using a database management system (DBMS) in each of the following environments. a) School
    b) Office/Factory
109. What is the purpose of the key field in a database management system (DBMS)? Suggest the most appropriate field to be used as the key field in an electronic library system.
110. Give **two** advantages and **two** disadvantages of a specially written database application.
111. Give **two** examples of specially written database applications.

112. Give **two** advantages of using presentation software over the traditional chalk-and-talk approach in a school environment.
113. How is a software suite different from integrated software? Give **two** advantages of using a software suite.
114. Give **two** advantages of desktop publishing software over word processing software for publication jobs.
115. Name **four** features that are normally provided with personal information management software.
116. How is bit-mapped graphics different from vector graphics? Give **two** advantages of vector graphics over bit-mapped graphics.
117. Name **four** features that are normally included in graphics software. 112. Give **two** advantages of using multimedia for teaching and learning.
113. Give **two** advantages of using computer simulations in teaching and learning.
114. Give **two** advantages of computer-based training (CBT). Can CBT replace teachers completely? Give **one** reason to support your argument.
115. Suggest the kind of application software that would best fit the jobs of the following persons:
    a) A writer
    b) A SOHO accountant
    c) An accountant of an international firm
    d) A personnel and resource manager
    e) A teacher delivering his/her lesson
    f) An engineer
    g) An architect
    h) A publisher
    i) A graphic designer
    j) A movie editor
    k) A Webmaster
    l) A student taking cyber classes
116. Describe briefly the meaning of electronic banking (E-banking). Suggest **one** advantage of E-banking.
117. Suggest **two** kinds of services that can be provided by an Automatic Teller Machine (ATM). Give **one** example of services that cannot be provided by an ATM.
118. What is WAP? Give **two** examples of WAP devices. Name **two** kinds of services that can be accessed by such devices.
119. Give **three** examples of IT applications in business.
120. Name **three** kinds of employee data that can be found in a payroll system. Give **two** advantages of a payroll system.

121. Give **one** advantage and **one** disadvantage for a ticket reservation system.
122. Name **two** places where Point-of-Sale (POS) systems are commonly found. Give **two** advantages of a POS system.
123. Give **two** examples of IT applications for each of the following systems.

    A. Monitoring and Control System
    B. Embedded System
    C. Artificial Intelligence (AI) System
    D. Robots
    E. Expert System
124. Suggest **two** types of jobs that are most suitable for robots.
125. Give **four** examples of IT applications in education.
126. Give **two** advantages and **two** disadvantages of computer-assisted learning (CAL).
127. Describe briefly the differences between data and information.
128. Give **one** example for each of these concepts. Suggest **four** methods to collect raw data.
129. Give **two** examples of unlawful Internet activities and suggest **one** solution for each unlawful activity.
130. Give **two** examples of unethical Internet activities and suggest **one** solution for each unethical activity.
131. State **four** kinds of materials on the Internet that are not suitable for the youth and the children.
132. What are repetitive stress injuries (RSI)? Describe briefly **one** example of repetitive stress injuries.
133. What is ergonomics? State **three** examples of ergonomics.
134. Suggest **two** possible causes of eyestrain due to prolonged use of computers. Give **two** remedies for reducing such injuries.
135. What is electromagnet radiation (EMR)? Suggest **two** remedies to reduce the risk of EMR when using computers.
136. Explain briefly why the advancement of computer technology has caused environmental hazards.
137. Give **one** advantage of using electronic money for purchasing. State **two** forms of electronic money.
138. What is a digital certificate? What information is contained in a digital certificate?
139. Some people have to face unemployment due to computerization of their posts. Suggest **two** solutions for such people to secure their jobs in the information age. Name **four** types of IT jobs.
140. What is telecommuting? State **four** benefits of telecommuting.
141. Give **two** daily examples of IT applications in each of the following areas.

A. Doing homework
B. Entertainment
C. Communications with friends

142. Suggest **two** kinds of people who may not benefit from IT applications.
143. How is computer-assisted learning (CAL) different from computer-assisted instruction (CAI)?
144. Mr Wong always need to use CAI during his lessons. Suggest **one** kind of application software for Mr Wong.
145. Suggest **two** advantages for learning through virtual campuses. Name **one** hardware and **one** application software that may be required to access a virtual campus.
146. What is Internet? State **four** reasons why people want to access the Internet.
147. State **four** kinds of information that can be accessed through the Internet.
148. State **two** differences between Internet and intranet.
149. Name **four** kinds of jobs created by using IT and computers.
150. Give **two** examples of traditional jobs that have disappeared because of less demand for manual labour. Describe briefly how such jobs are replaced by using IT and computers.
151. Give **four** examples how jobs have altered as a result of IT and computers.
152. Give **two** advantages and **two** disadvantages of telecommuting (i.e., working away from a company's standard workplace).
153. Describe briefly how credit cards different from debit cards.
154. Give **two** advantages and **two** disadvantages for a cashless society.
155. State **two** services that are normally supported by online banking.
156. Give **two** advantages and **two** disadvantages of e-commerce.
157. What are the advantages of e-commerce over traditional transactions?
158. Describe briefly the **three** basic e-commerce models.
159. Give **two** reasons that stress may arise due to jobs and work.
160. How is computer-based training different from Web-based training? Suggest **one** advantage of Web-based training over computer-based training.
161. Suggest **two** advantages of computer-based training over traditional training in education. Give **two** advantages of distance learning.
162. Give **two** reasons why simulations are used often in education.
163. Give **four** examples of computer applications in health care.
164. Suggest **two** possible causes of repetitive strain injuries due to using computers. Give **two** remedies for reducing such injuries.
165. Suggest **two** possible causes of eyestrain due to prolonged use of computers. Give **two** remedies for reducing such injuries.
166. Suggest **two** criteria for choosing a monitor in order to reduce eyestrain.

167. Suggest **two** remedies for reducing lower back pain due to prolonged use of computers.
168. What is ergonomics? Describe briefly **two** examples of hardware that have employed ergonomic design.
169. What is electromagnet radiation (EMR)? Explain briefly how to reduce the risk of EMR when using computers.
170. Describe briefly the following types of virus:
    a) Boot sector virus
    b) File virus
    c) Macro virus
    d) Worm
    e) Trojan horse
171. What is a computer virus? Suggest **three** ways that computer viruses may be activated on a computer.
172. Suggest **four** precautions to prevent computer virus infections.
173. What is SPAM? Why is the sending of SPAM disruptive to a business?
174. How is unauthorized use different from unauthorized access? Give **four** examples of unauthorized use of a computer system in an office environment.
175. Suggest **two** ways how a company might avoid unauthorized use of computer resources by employees.
176. Explain briefly **identification** and **authentication** in computer access control. Name **four** methods of identification and authentication.
177. Suggest **four** guidelines for creating a good password.
178. Suggest **four** precautions to prevent hardware theft.
179. What is a personal identification number (PIN)? Suggest **two** guidelines for creating a good PIN.
180. Give **four** examples of biometric devices used for access control. Give **two** disadvantages of using biometric devices for access control.
181. What is software piracy? Suggest **three** negative effects of software piracy.
182. What is a license agreement? Describe briefly the difference between a single-user license, a site license, and a network site license.
183. Give **two** possible reasons for information theft. Suggest **two** preventions for information theft.
184. What is an encryption key? Describe briefly the difference between **private key encryption** and **public key encryption**.
185. Suggest **two** reasons why information obtained from the Internet is not always correct.

186. What is intellectual property? Describe briefly how copyright is different from trademark.
187. Explain briefly how an uninterruptible power supply (UPS) may help to protect a computer system and its data?
188. What is electronic commerce (e-commerce)? How is e-commerce different from ebusiness? Describe briefly the **five** basic components of an e-commerce system.
189. Describe briefly the **three** main types of e-commerce models and give **one** example for each of the models. State **two** advantages of e-commerce.
190. Explain briefly the functions of the following components in the central processing unit (CPU).
    a) *Control Unit (CU)*
    b) *Arithmetic and Logic Unit (ALU)*
    c) *Register*
191. The following table shows the specifications of three computer systems.

	Computer A	Computer B	Computer C
Processor	Intel Celeron 700 MHz	Intel Pentium 4 1.6 GHz	Intel Pentium III 650 MHz
RAM	128 MB	128 MB	192 MB

    a. Which of the computers in the table has the slowest CPU?
    b. Suggest **one** way to improve the performance of Computer B based on the table above.
192. What is a bus in a computer system? How is an internal bus different from an expansion bus?
193. Describe briefly the following three types of buses.
    a. *Address Bus*
    b. *Control Bus*
    c. *Data Bus*
194. Explain briefly why the following factors are also important. [2 marks]
    a. *The width of a bus*
    b. *The clock speed of a bus*
195. Name **four** kinds of expansion cards that can be found in most desktop computers today.
196. What is pipelining? What is an integrated CPU? How does parallel processing work?

197. What is computer communications? Suggest **two** advantages of using computer communications over traditional ways of communications (e.g., postal mails and telephone calls).
198. State **four** methods of communications with others on the Internet.
199. Name **two** Web browsers that are commonly used to access the Internet.
200. Suggest **two** advantages of e-mail over postal mail.
201. Suggest **two** advantages of teleconference (i.e., videoconference) over traditional faceto-face conference.
202. Explain briefly the following terms concerning computer communications.
    a) *The World Wide Web (WWW)*
    b) *Electronic mail (E-mail)*
    c) *File transfer protocol (FTP)*
    d) *Telnet*
    e) *Message Board*
    f) *Newsgroup*
    g) *Chat room*
    h) *Instant messaging*
    i) *Teleconferencing (i.e., Videoconferencing)*
    j) *Video on demand (VOD)*
203. Suggest **four** advantages of computer networking.
204. How is a local area network (LAN) different from a wide area network (WAN), based on the area covered? Give **one** example for each of them.
205. Describe briefly how TCP/IP works. Why is a TCP/IP connection often referred to as "point-to-point"?
206. What is a network operating system (NOS)? Give **two** examples of NOS. State **four** tasks that are normally performed by a network operating system.
207. How is peer-to-peer network different from client/server network, considering how programs, data and information are stored?
208. What is meant by network topologies? State **three** commonly used network topologies.
209. Give **three** examples of wire-based communications channels. Give **four** examples of wireless-based communications channels.
210. Suggest **two** advantages of coaxial cables over twisted-pair wires. Suggest **three** advantages of optical fibers over twisted-pair wires and coaxial cables. Suggest **two** disadvantages of optical fibers.
211. Give **three** advantages of land-based microwave antennas over twisted-pair wires, coaxial cables, and optical fibers. Suggest **two** disadvantages of land-based microwave antennas.

212. Give **one** advantage and **one** disadvantage of communications satellites when compared with land-based microwave antennas.

213. _____ refers to converting digital signals to analogue signals while _____ is the process of converting analogue signals to digital signals. The device required for such a task is called a _____.What is the difference between digital signal and analog signal?
214. Describe the functions of a modem for transmitting data between two computers through a standard telephone line. If a 56K modem is operating at full speed, how long does it take to download a 1-MB file?
215. An _____ (ISP) is a business that has a permanent Internet connection and provides temporary connections to individuals and companies for free or for a fee. Name **two** ISPs in Uganda. Besides providing Internet connection, state **two** other services normally provided the ISPs in Uganda.
216. Describe briefly the following connections.
    a. Dial-up Line
    b. Dedicated Line
    c. Leased Line
    d. ISDN Line
    e. DSL Line
    f. ADSL Line
    g. T-1 Line
217. Give **two** advantages of the database approach over manual file processing.
218. Describe briefly the difference between a flat file database and a relational database. Give **two** advantages of a relational database over a flat file database.
219. Describe briefly the following terms in a DBMS:
    a) Record
    b) Field
    c) File/Table
    d) Database
220. Give **two** advantages of coding data in a DBMS.
221. What is a query? What is a query language? What is SQL?
222. What are the **five** commonly used elements in a multimedia presentation?
223. Describe briefly the term "**multimedia**".
224. Suggest **two** advantages of using multimedia in presentation.
225. Suggest **two** disadvantages of using multimedia in presentation.
226. What is HTML? How is HTML different from a programming language (e.g., Pascal)?
227. Apart from text, name **four** items that can be added to a Web page. What is the purpose of creating a hyperlink on a Web page?

228. Suggest **two** ways to reduce the download time of a Web page (i.e., to display a Web page) during the Web authoring process.
229. State **three** considerations for good Web design.
230. What is a search engine?
231. State the URLs for **two** popular search engines on the Internet below.
232. Peter and Mary use the same keyword to search for information. Suggest **two** reasons why their search results are different.
233. State **two** services that can be obtained from an e-library through the Internet. What is a virtual campus? State **three** advantages of learning through a virtual campus.
234. State **two** methods for students to communicate with each other and their faculties when taking online distance learning courses.
235. State **one** advantage of electronic books (e-books) over paper books. State **one** advantage of Web-based learning over paper books and e-books.

ICT we go, we go, and we go!!!!!!!!!!!!!