IBO

IB DIPLOMA PROGRAMME
PROGRAMME DU DIPLÔME DU BI
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INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY
STANDARD LEVEL
PAPER 1

Thursday 22 May 2003 (afternoon)

1 hour

INSTRUCTIONS TO CANDIDATES

* Do not open this examination paper until instructed to do so.
* Answer all the questions.
* For each question, choose the answer you consider to be the best and indicate your choice on the answer sheet provided.

1.   Which **one** of the following is an example of a device which can serve as both an input and output device?

     A.   Scanner

     B.   Flat-screen monitor

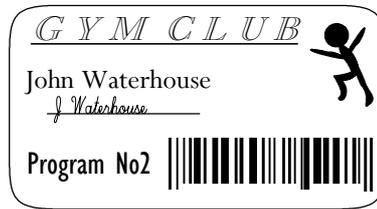   C.   Virtual-reality helmet

     D.   Keyboard

2.   What action is considered a computer crime?

     A.   An employee accesses the company's intranet from home using his/her password to retrieve a file.

     B.   A person withdraws money from a bank counter using a false identity.

     C.   An ATM repairman withdraws $1 000 from an ATM by using a customer's password.

     D.   A student participates in an essay contest, submitting a document copied from a book.

3.   In which situation is it better to use a human rather than an information system?

     A.   Counting the number of vehicles using a road

     B.   Interviewing a future employee

     C.   Locating books in a library

     D.   Registering attendance through a sports stadium gate

4.   A member of the sales staff leaves a company to become self employed. Which **one** of the following would cause an economic problem for the company which is difficult to solve?

     A.   She does not return the laptop the company has lent her.

     B.   She takes a copy of the customer file off the network.

     C.   She knows the network administrator's password.

     D.   She was trained to use a particular piece of software.

5.   Why is it more practical to use a spreadsheet rather than a calculator to prepare a budget?

    A.   Spreadsheets use only numerical data.

    B.   Spreadsheets calculations will always be correct.

    C.   Spreadsheets allow the use of formulae.

    D.   Spreadsheets allow you to vary numbers to see the effects.

6.   Which **one** of the following is a purpose of a sensor attached to a computer?

    A.   Scanning pictures

    B.   Monitoring temperature

    C.   Inputting text

    D.   Reading fingerprints

7.   Why do companies often monitor employees' use of computers?

    A.   To protect the employees from hackers

    B.   To ensure productivity within the company

    C.   To back up vital information from the employee's hard disk

    D.   To determine if the employee's computer is faulty

8. A gym uses a barcode reader to read information on a customer's membership card. Which piece of data will be recorded in the barcode?

    A.   The customer's age

    B.   The number of times the customer uses the gym

    C.   The customer's membership number

    D.   The membership fee

9. Which statement related to *storage devices* is true?

    A.   A magnetic tape can store only small amounts of information.

    B.   A magnetic tape is a random access medium.

    C.   Zip disks are used for exchanging large data files between machines.

    D.   A floppy disk is a sequential access medium.

10. Which system would locate lost pets equipped with a collar which sends signals?

    A.   An expert system

    B.   A global positioning system (GPS)

    C   A geographical information system (GIS)

    D.   A computer simulation system

11. Which **one** of the following is an important ethical consideration when installing new software on the network?

    A.   The amount of RAM needed to load the software

    B.   The compatibility of the new software with the operating system

    C.   The amount of free space on the file server hard disk

    D.   The licensing requirements of the software

12. What is the purpose of a "plug-in" placed inside an application folder?

    A.   To ensure copyright is observed

    B.   To prevent viruses

    C.   To increase functionality of the program

    D.   To record the computer activity of the user

13. Which term describes the flooding of a web server to stop it working?

    A.   A denial-of-service attack

    B.   Spamming

    C.   A macro virus

    D.   A logic bomb

14. Which **one** of the following is a way of preventing hacking?

    A.   Installing a defragmentation program

    B.   Using a disk utility program to recover corrupted data

    C.   Installing a firewall

    D.   Upgrading the system software to the newest version

15. What file format is used to store manuals on a CD-ROM so that they retain the same appearance as the original printed version?

   A. ASCII

   B. jpeg (jpg)

   C. pdf

   D. sylk

16. Which application requires object-oriented (vector) graphics?

   A. Photo editing software

   B. Video editing software

   C. Architectural drawing software

   D. Scanning software

17. A student wished to use a picture from the world wide web in her own work. Which **one** of the following is the procedure she should use?

   A. She should e-mail the artist for permission to use the picture and state the source in her work.

   B. She should modify it with a graphics editor and tell the artist she has used it.

   C. She should modify it with a graphics editor and state the source in her work.

   D. She may use it freely because there is no copyright on pictures on the web.

18. In which **one** of the following situations would a spreadsheet be used?

   A. Creating a mathematical model

   B. Creating 3-dimensional rotating images

   C. Creating different layouts for the same data

   D. Downloading mathematical data from the Internet

19. Which **one** of the following techniques is never used in the preparation of weather forecasts?

A. Virtual reality

B. Simulation

C. Modelling

D. Databases

20. Which **one** of the following field types could be used to store phone numbers in a database?

A. Calculation

B. Date

C. Text

D. Multimedia

21. In a school, students' personal details are stored in a library database and also in the administration database. Which **one** of the following terms describes this situation?

A. Data integrity

B. Data redundancy

C. Data security

D. Data validity

22. Which **one** of the following situations involves an ethical consideration?

A. Tuning your guitar to a digitised note

B. Digitizing your own guitar compositions

C. Accompanying a song heard on a digital radio with your guitar

D. Digitizing your parents' record collection and sending it to your friend

Turn over

23. A common criticism of computer-aided learning packages is that they are too superficial. Which **one** of the following could be added to encourage their use as serious teaching tools to support learning in high school education?

    A.   Modern, high-resolution graphics to aid excitement and realism

    B.   Links to web sites to give the students hints

    C.   Open-ended questions which encourage discussion and further research

    D.   An answer key to provide instant feedback

24. What is the main function of an MP3 file?

    A.   To enhance the quality of a sound file

    B.   To ensure that it is easily compatible with computer systems world-wide

    C.   To reduce the size of a sound file

    D.   To break the copy protection placed on a sound file

25. What is the Turing Test?

    A.   An expert system

    B.   A test to determine if responses are being given by man or machine

    C.   A test to determine the MHz of different models of computers

    D.   A test to determine the amount of fragmentation on a hard disk

26. Which **one** of the following statements is true about e-learning (online)?

    A.   It is always taught through videoconferencing.

    B.   Students' learning is always easy to monitor.

    C.   Continuous updates can be provided through the Internet.

    D.   Students find it easy to learn through distance learning.

27. Which **one** of the following is an advantage of presenting information on a web page rather than in a desktop publishing document?

A. It is impossible to plagiarize information.

B. It is simple to view all the information at once.

C. There is greater accessibility to a wider audience.

D. It is easy to place text and images anywhere on a web page.

28. Which service on the Internet can be regarded as being unethical?

A. A server periodically delivers information requested by a subscriber.

B. News headlines on subjects of the user choice scrolls along the top of his/her screen.

C. A subscriber receives up-to-the-minute weather maps displayed in a small window of his/her screen.

D. Advertisements can be placed to collect user information.

29. Which **one** of the following is the result of publishing encyclopedias on a CD-ROM?

A. Encyclopedias are now more expensive to buy.

B. The information is presented with sound as well as visually.

C. Encyclopedias are more accurate on CD-ROM.

D. It is now legal to use material from an encyclopedia in school essays without acknowledgement.

30. Which **one** of following allows business people in different countries to see and hear each other in real time?

A. Chat rooms

B. Teleconferencing

C. News groups

D. Videoconferencing

31. Which feature is available with digital television but not with analogue television?

    A.   A mixed screen of news via teletext and a movie

    B.   Fifty or more television channels available using a remote control

    C.   The ability to choose a different camera angle during a concert

    D.   Receiving radio channels through the television set

32. Which **one** of following is an ethical consideration of networking the computers in a school?

    A.   Extra technical staff may be employed.

    B.   Students can log on to their home directory from any networked computer.

    C.   Internet usage can be tracked and monitored.

    D.   Students can access pornography on the Internet.

33. How can companies using a LAN ensure total privacy within that network?

    A.   Use an encryption key.

    B.   Use a firewall.

    C.   Register with a data protection agency in their country.

    D.   They can't.

34. Where are cookies stored?

    A.   On the hard disk of the client's computer

    B.   On the server of the ISP

    C.   On the host computer of an e-commerce site

    D.   In the e-mail log file of the client's computer

35. Which **one** of the following statements about intranets is false?

    A.   An intranet uses Internet protocol.

    B.   An intranet requires a server and client browser.

    C.   An intranet may use HTML format.

    D.   An intranet must be opened to the Internet community.

36. Which **one** of the following is a valid format for a URL?

    A.   info@tourist.com

    B.   http@tourist.biz

    C.   http://tourist.biz

    D.   http://tourist@com

37. Which situation describes an instance where copyright has been violated?

    A.   An art teacher uses a web browser to show paintings from the Louvre.

    B.   A student uses the web to research ITGS portfolio pieces.

    C.   A film studio places a movie trailer on the web.

    D.   A graphics artist makes a collage by using images from the Internet.

38. Which of these features was **not** available before the arrival of the Internet?

    A.   Instant communication with a person in another country

    B.   Shopping from home

    C.   World-wide news on the day it happened

    D.   The facility to chat to a group of people anonymously in real time

Turn over

39. Which **one** of the following would allow a computer technician to access a computer system when the end-user forgot their password?

    A.   Encryption key

    B.   Back door

    C.   Firewall

    D.   Browser

40. Which **one** of the following is a situation where robots are used instead of humans?

    A.   Accessing a computer system through a trap door

    B.   Retrieving items from the ocean floor

    C.   Entering vast amounts of data into a database

    D.   Supervising the assembling of automobiles