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INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY
STANDARD LEVEL
PAPER 1

Monday 12 November 2001 (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 of the following is the definition of *information*?

    A. Facts and numbers which can be stored

    B. Data combined with units of measure or accompanying meaning

    C. An analysis of events or experiments

    D. Knowledge which assists us in our work

2. Universities now use computers extensively. Which situation could be regarded as having ethical consequences?

    A. Using information from the Internet in research papers

    B. Using an expert system to guide students on course selection

    C. Giving students an email address to communicate with their lecturers

    D. Using a computer program to select multiple choice questions

3. What is the advantage of providing access to a database over a network?

    A. At any moment several people may open the same record for editing.

    B. At any moment several people may view the contents of the same record.

    C. Passwords are required to open the database files.

    D. Database files are encrypted for security.

4. Which statement describes a disadvantage of computer networks?

    A. They encourage work outside company offices.

    B. They require physical connections using cables or telephone wires.

    C. They make data less secure from unauthorised access.

    D. They do not support multimedia applications.

5. In which situation is an ethical issue involved?

    A.   Companies which create computer action games increasingly use better graphics to attract more users.

    B.   A person installs a virus on a computer network.

    C.   A person enters their own PIN number for their bank account in an automatic teller machine (ATM).

    D.   A secretary updates a database containing confidential information.

6. A barcode reader allows for fast input of data. Why must barcode numbers sometimes be input manually?

    A.   The barcode is not read properly by the machine.

    B.   The barcode has a check digit in it.

    C.   The numeric code printed under the bar code is different to the one stored in the bar code.

    D.   There is no numeric code printed under the bar code.

7. Which statement applies to CD-ROMs?

    A.   They cannot be used to store a slideshow presentation.

    B.   They cannot be used to store music files.

    C.   They cannot be used to store a desktop publishing (DTP) document.

    D.   They cannot be used to store analog data.

Turn over

8. Which of the following software applications can you legally copy only once?

    A.   Freeware

    B.   Public Domain software

    C.   Commercial software

    D.   Shareware

9. What item is often included in software packages to train the new user in how to use the software?

    A.   Copyright agreement

    B.   A search engine

    C.   A utility program

    D.   Tutorial program

10. Which task is included in application software?

    A.   File compression

    B.   Formatting page layout

    C.   Renaming of files

    D.   File copying

11. What would prevent the loss of data damaged by fire, storm or flood?

    A.   Having a regular hardware maintenance plan

    B.   Having a multi-user system

    C.   Having an Uninterrupted Power Supply (UPS) unit

    D.   Having the media used for backup stored in another location

12. Which software is protected by intellectual property rights?

       I.   Public Domain software

      II.   System software

      III.   Application software

   A.   I only

   B.   I and II

   C.   II and III

   D.   I, II and III

13. What is the difference between a document saved in RTF (Rich Text Format) and one which is saved in ASCII (text) format?

   A.   The size of the RTF file is smaller than the ASCII file.

   B.   An RTF file can be opened by any word processor and an ASCII file cannot.

   C.   An RTF file retains the size and style of characters and an ASCII file does not.

   D.   ASCII files can be sent as attachments in emails and RTF files cannot.

14. What is an advantage of using a spell checker?

   A.   Students can produce documents without any grammar and spelling errors.

   B.   Students do not have to proofread their work.

   C.   Students can select the spellchecker according to the language they are using.

   D.   Students can easily reformat their documents.

15.   What is a disadvantage of using desktop publishing (DTP)?

    A.   Many fonts are available for DTP projects.

    B.   Novice DTP users have little formal training in DTP design.

    C.   Graphics must be scanned in 72 dpi.

    D.   Backup of a DTP file is not possible because the files are huge.

16.   Which statement describes the storage of a picture which is scanned at 144 dpi compared to 72 dpi?

    A.   The 144 dpi file is four times larger than the file saved with 72 dpi.

    B.   The 144 dpi file is twice as large as the file saved with 72 dpi.

    C.   The 144 dpi file is half the size of the 72 dpi file.

    D.   The files are the same size.

17.   An ITGS student uses graphics copied from the World Wide Web in creating an ITGS Project. Which statement describes an acceptable use policy?

    A.   Any graphics can be used freely from the World Wide Web.

    B.   Any graphics from different Web pages can be combined to make new images.

    C.   Any graphics can be used if they are edited and modified.

    D.   Any graphics used must cite the source.

18.   Which information will result from the calculation shown in cell D 13?

	A	B	C	D
1	CHOCOHOLIC INC			
2	Item	Quantity	Cost per unit	Total Cost
3	Chocolates			
4	Caribbean bar	10	3	30
5	Birthday packs	20	1	20
6	Total			50
7				
8				
9	Biscuits			
10	Teddy biscuits	10	5	50
11	Smileys	20	5	100
12	Total			150
13				Sum (D6, D12)

A.   The average cost of all products

B.   The total cost of the order

C.   The quantity of products ordered

D.   The maximum cost of the order

19.   What type of software is used to predict the production of crops under different weather conditions?

A.   Simulation

B.   CAD

C.   Model

D.   Virtual reality

20. A school stores information about students in a database. What action would the school take to update the address of a student who has moved to a new location?

    A.   The address will be inserted.

    B.   The address will be deleted.

    C.   The address will be edited.

    D.   The address will be duplicated.

21. Data stored in a computer may be incorrect for several reasons. What procedure can be used to ensure the integrity of data?

    A.   Lock the door to any computer installation.

    B.   Change passwords regularly.

    C.   Check for input data falling within acceptable ranges.

    D.   Use a disk drive lock to prevent the use of diskettes.

22. Which statement would **not** appear in an IT policy regarding the collection, maintenance and access of data?

    A.   Data must be relevant for the purpose for which it is collected.

    B.   Data must be up-to-date.

    C.   Data must be accurate.

    D.   Data may be revealed to any individual upon request.

23. As hardware and network capabilities have developed, new software applications have emerged. Which list indicates the chronological order of software development (earliest to latest)?

    A.   Spreadsheet, word processor, desktop publishing, web publishing, multimedia

    B.   Word processor, spreadsheet, multimedia, desktop publishing, web publishing

    C.   Word processor, spreadsheet, desktop publishing, multimedia, web publishing

    D.   Spreadsheet, word processor, desktop publishing, multimedia, web publishing

24.   Which action protects the intellectual property of the creator?

   A.   Downloading images from the Internet and citing the URL

   B.   Downloading an essay from the Internet

   C.   Scanning an image from a book and making it available on a network

   D.   Scanning a graph from the newspaper and inserting it in a financial report

25.   Which training would be most effective for employees when new software is installed?

   A.   Watching a video

   B.   Reading a manual

   C.   Attending a course on the new software

   D.   Using the Help menu

26.   Which statement describes a feature of expert systems?

   A.   They use data from public surveys.

   B.   They use random data.

   C.   They use the combined knowledge of specialists.

   D.   They use spreadsheet models.

27.   What social effect arises from the widespread use of automated machines?

   A.   Some employees are replaced in manufacturing processes.

   B.   Employees do not need to be trained.

   C.   The need for technical support decreases.

   D.   The company's cost for employee benefits increases.

28. Which area of information technology is used in the software designed to play a chess game against a human opponent?

    A.   Robotics

    B.   Virtual Reality

    C.   Simulation

    D.   Artificial Intelligence

29. Which statement is true about a relational database compared to a flat-file database?

    A.   Data redundancy is best avoided by using a relational database.

    B.   Relational databases are more secure than flat-file databases.

    C.   Privacy of personal data is best protected in a flat-file database.

    D.   More data is contained in a relational database.

30. Which statement applies to video conferencing?

    A.   Video conferencing needs a LAN for transmission.

    B.   Video conferencing is the simultaneous transmission of sound.

    C.   Video conferencing is the simultaneous transmission of both sound and video.

    D.   Video conferencing needs analog signals for transmission.

31. What is the advantage of sending a fax rather than an email?

    A.   Fax messages are cheaper to send than email.

    B.   Fax messages are received with the same font and style as the original document.

    C.   Fax messages can be sent easily to many addresses at the same time.

    D.   Fax messages can be received as editable text.

32. What personal characteristics should apply to teleworkers?

    A.   They require self-discipline and organisation to keep on task.

    B.   They require frequent contact with fellow workers.

    C.   They require a relaxed attitude towards working hours and meeting deadlines.

    D.   They require skill in writing software programs.

33. Which statement describes how computer networks have affected business practice?

    A.   They have reduced time lost from work due to illness.

    B.   They have increased customer involvement in company policy making.

    C.   They have reduced the need for technical support.

    D.   They have increased JIT ('just in time') manufacturing processes.

34. Which statement explains the increase in WANs?

    A.   The amount of information with economic value has increased.

    B.   Networks make data more secure.

    C.   The need to share information has decreased.

    D.   The processing of data within a building has increased.

35. What is the advantage of networks over stand-alone systems?

    A.   Networked computers are more secure than stand-alone computers.

    B.   Networks allow the use of groupware.

    C.   Networks require less technical support.

    D.   Networks allow the use of single user licences.

36. Many people now purchase books using the Internet rather than a local bookstore. Which statement applies to buying a book on the Internet?

    A.   Books should only be purchased from secure sites.

    B.   The book from the Internet may be different from the one in the bookstore.

    C.   There is only one Internet site for buying books.

    D.   The author may object to Internet sales of the book.

37. How can a company keep their internal network secure from a hacker who is using the Internet to gain unauthorised access?

    A.   Use a firewall.

    B.   Use encryption software.

    C.   Use virus detection software.

    D.   Use a backup system.

38. Which situation involves an ethical consideration when students are given access to the Internet?

    A.   Teaching students efficient ways of searching for information

    B.   Limiting disk space for downloading files from the Internet

    C.   Monitoring Internet sites visited by students

    D.   Helping students to set up an Internet browser

39. Which social impact has resulted from the availability of global access to the Internet?

    A.   The number of people worldwide who have learned to speak a foreign language has increased.

    B.   The speed of the Internet has increased.

    C.   The copying of intellectual property has become more difficult.

    D.   People have access to worldwide information.

40. Which is an example of pull technology?

    A.   Sending catalogues to customers by email

    B.   Requesting travel information from a company Web site

    C.   Receiving unrequested emails with prices of computers

    D.   Displaying online advertising banners on several sites