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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: DIPLOMA IN AGRICULTURAL EDUCATION I
DIPLOMA IN AGRICULTURE I
DIPLOMA IN HOME ECONOMICS I
DIPLOMA IN HOME ECONOMICS EDUCATION I
REMEDIAL YEAR IN AGRICULTURE
MASTER OF SCIENCE

COURSE CODE: AEM 102

TITLE OF PAPER: INTRODUCTION TO COMPUTERS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS:

1. ANSWER <u>ALL</u> QUESTIONS IN <u>ALL</u> SECTIONS.

2. ANSWER <u>ALL</u> QUESTIONS ON THE QUESTION PAPER. YOU DO <u>NOT</u> NEED AN EXAMINATION ANSWER FOLDER. SUBMIT THIS QUESTION PAPER. <u>DO NOT</u> REMOVE IT FROM THE EXAMINATION ROOM.

3. QUESTIONS CARRY MARKS AS INDICATED IN THIS PAPER.

Candidate's Examination Number   : _____ .

Time of Examination   : _____ .

Date of Examination   : _____ .

Venue of Examination   : _____ .

DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR

SECTION I: **Multiple Choice:** For each item, circle the <u>one</u> letter corresponding to the choice that best completes/answers that item. Read all choices before you circle one.

(2 marks each)   [50 marks total]

1. In contrast to early computers, todays computers are:
   a.   larger.
   b.   available to fewer people.
   c.   less expensive.
   d.   a and b.
   e.   a and c.
   f.   b and c.
   g.   a, b, and c.

2. A person using a computer must be sure that the information they give to the computer is correct, or the information they get back may also be incorrect. An acronym common among computer users to express this truth is:
   a.   RIRO
   b.   GIGO
   c.   TITO
   d.   DITO

3. The FORMAT command in MSDOS:
   a.   divides each disk surface into tracks.
   b.   divides each disk surface into sectors.
   c.   creates subdirectories.
   d.   a and b.
   e.   a and c.
   f.   b and c.
   g.   a, b, and c.

4. Formatting is necessary:
   a.   for coating the diskette with magnetic material.
   b.   to ready the diskette for use.
   c.   to enable the computer to store.
        information where it can locate it later.
   d.   a and b.
   e.   a and c.
   f.   b and c.
   g.   a, b, and c.

5. Of the programs we used in class, the one that used A:> as the prompt was a/an:
   a.   database management system.
   b.   expert system.
   c.   function wizard.
   d.   operating system.
   e.   spreadsheet.
   f.   word-processor.

6. A directory within a directory (that is, one that is part of another directory) is called a:
   a.   minidirectory.
   b.   microdirectory.
   c.   macrodirectory.
   d.   sidedirectory.
   e.   subdirectory.
   f.   superdirectory.

7. A set of programs that controls all of the functions of the computer and its auxiliary devices is referred to as a/an:
   a.   database management system.
   b.   expert system.
   c.   function wizard.
   d.   operating system.
   e.   spreadsheet.
   f.   word-processor.

8. In handling diskettes, one must remember to:
   a.   store them away from magnets.
   b.   store them at a temperature between 10°C and 60°C.
   c.   insert them carefully.
   d.   a. and b.
   e.   a. and c.
   f.   b. and c.
   g.   a., b., and c.

9. The operating system found in the ROM of the computers we used in the course is:
   a.   PC DOS.
   b.   OS-2.
   c.   Windows 2000.
   d.   MS-DOS.
   e.   small permanent operating system.
   f.   Windows XP.

10. If both files relate to the same data, the amount of data stored in a sorted file:
    a. is the same as that stored in an index file.
    b. is less than that stored in an index file.
    c. is more than that stored in an index file.
    d. may be more or less than that stored in an index file.

11. When compared to a manual typewriter, a microcomputer used as a word-processor:
    a. makes it easier to underline text.   e. a. and c.
    b. makes it harder to make corrections.   f. b. and c.
    c. makes it harder to number pages.   g. a., b., and c.
    d. a. and b.   h. none of the above.

12. An MSDOS command that is only loaded into internal memory when it is needed is referred
to as: a. access on.
        b. access off.
        c. ephemeral.
        d. external.
        e. internal.

13. DISKCOPY A: B:
    Assuming the diskettes in drive A: and drive B: are of the same capacity, the MSDOS
    command at the start of the question will:
    a. not have any effect, because DISKCOPY is not an MSDOS command.
    b. not have any effect, because this is not the way DISKCOPY should be stated.
    c. copy all files and blank spaces from the diskette in drive B: to the diskette in drive
        A:
    d. copy all files and blank spaces from the diskette in drive A: to the diskette in drive
        B:
    e. copy only non-hidden files from the diskette in drive B: to the diskette in drive A:
    f. copy only non-hidden files from the diskette in drive A: to the diskette in drive B:
    g. copy only hidden files from the diskette in drive B: to the diskette in drive A:
    h. copy only hidden files from the diskette in drive A: to the diskette in drive B:

14. In this course, symbols or facts that help us answer questions were referred to as:
    a. data.   d. forms.
    b. icons.   e. fonts.
    c. statistics.   f. information.

15. The "heart" or "brain" of the computer is the:
    a. RAM.   d. CPU
    b. keyboard.   e. monitor.
    c. diskdrive.

16. A group of eight binary digits is referred to as a/an:
    a. bit.   d. access.
    b. byte.   e. byt.
    c. address.

17. Computer flight simulators are an example of using simulation in the area of:
    a. Training/Teaching.
    b. Research.
    c. Exploring Alternatives/Planning.
    d. Predicting Events.

18. Plant growth models designed to learn previously unknown information about the plants are an example of using simulation in the area of:
     a.   Training/Teaching.
     b.   Research.
     c.   Exploring Alternatives/Planning.
     d.   Predicting Events.

19. The pattern of 0's and 1's in a memory location can represent:
     a.   a command to the microprocessor.   e.   a and c.
     b.   an ASCII letter character.   f.   b and c.
     c.   an ASCII number character.   g.   a, b, and c.
     d.   a and b.

20. Which of the following types of computer languages is (are) machine independent?
     a.   assembly language.   e.   a and c.
     b.   high level language.   f.   b and c.
     c.   machine code.   g.   a, b, and c.
     d.   a and b.

21. A bar code on a product contains information on:
     a.   the manufacturer of the product.   e.   a and c.
     b.   the store where the product is being sold.   f.   b and c.
     c.   the identity of the product.   g.   a, b, and c.
     d.   a and b.

22. In sound processing analysis is more difficult than synthesis:
     a.   because output can be standardized in analysis.
     b.   because there are more possible inputs in synthesis.
     c.   both a. and b.
     d.   neither a. nor b.

23. In using a computer to regulate the temperature in the greenhouse, the sensor(s) could include:
     a.   a fan.   e.   a. and c.
     b.   a thermometer.   f.   b. and c.
     c.   a window opener.   g.   a.,b. and c.
     d.   a. and b.   h.   none of the above.

24. In the central processing unit, the part responsible for storing the number of the next instructions is the:
     a.   control unit.
     b.   instruction register.
     c.   program counter.
     d.   arithmetic and logic unit.
     e.   none of the above.

25. The elements of an information system include:
     a.   procedures.   e.   a. and c.
     b.   people.   f.   b. and c.
     c.   machines.   g.   a.,b. and c.
     d.   a. and b.   h.   none of the above.

SECTION II: **A. FILL IN THE BLANK:** In each blank, write the one word that best completes the sentence.   (1 mark each blank)   [10 marks total]

1.   The bar code contain information about the _____, _____, and _____, in addition

to the control number.

2.   A network with relatively few users within a radius of about 10 km, with private lines is

referred to as a/an

_____   _____   _____.

3.   The major limitation of simulation is that it is only as good as the _____ that

underlie it.

4.   A binary digit is referred to as a/an _____, a group of eight of these as a/an _____,

and the location of the group of eight in the memory as a/an _____.

SECTION II: **B. MATCHING:** In the blank next to each item on the left, place the letter of the **one** step in system analysis/development on the right in which that item fits. Read all listed steps **before** you start to answer. You may need to use some letters more than once. (N.B.: The steps are listed in alphabetical order, not necessarily in the order in which they are done.)
                            (2 marks each)   [10 marks total]

_____ 1.   Purchase equipment.   a.   Choosing the right system.

_____ 2.   How could the present system be improved?   b.   Feasibility study

_____ 3.   What are the costs of changing?   c.   Implemen-tation

_____ 4.   Get quotations of costs of possible new options.   d.   System definition.

_____ 5.   Adapt the new system.   e.   System maintenance.

SECTION III. **SHORT ANSWER:** Answer each question in the space provided.

1. Describe what a computer virus is and list three ways of avoiding virus infection of your diskettes.   [10 marks]

2. Distinguish between ANALYSIS and SYNTHESIS in image processing and compare their difficulty.   [10 marks]

3. Describe the capabilities and special features of a spreadsheet program.   [10 marks]

FOR EXAMINERS' USE ONLY :

Section	Internal Examiner		External Examiner	
	Mark	Signature	Mark	Signature
I.				
II.A				
II.B				
III.1				
III.2				
III.3				
TOTAL				