PROGRESSIVE COMPREHENSIVE HIGH SCHOOL (PCHS) MANKON, BAMENDA

SPECIAL MOCK GCE EXAMINATIONS

DECEMBER 2013 **ADVANCED LEVEL**

Subject/Code:	Computer Science 795
Paper N°	1
Examiner	DZEUGANG Placide

795 COMPUTER SCIENCE 1: MULTIPLE CHOICE QUESTIONS PAPER

TIME ALLOWED: 90 MINUTES

INSTRUCTIONS TO STUDENTS

Read the following instruction carefully before you start answering the questions on this paper. Make sure you have a soft HB pencil and an eraser for this examination

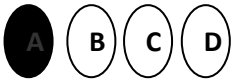
1. USE A SOFT HB PENCIL THROUGHOUT THIS EXAMINATION
2. This paper consists of FIFTY multiple choice questions to be completed by students.
3. Answers should be marked on the answer sheet provided.
4. Each item in this paper has four suggested answers lettered (A), (B), (C), (D). Read each item carefully then choose the best answer.
5. Mobile phones are **NOT ALLOWED** in the examination room.

Sample Item

Which of the following pairs represents general-purpose software tools?

(A) Spreadsheet and database software
(B) Word processor and accounting software
(C) Students record system and database software
(D) Insurance processing and spreadsheet software

Sample Answer



The best answer to this item is "spreadsheet and database software", so answer space (A) has been shaded.

DO NOT TURN THIS PAGE UNTIL YOU ARE ADVISED TO DO SO

1. The ASCII code of A is:
(A) 1100011 (B) 1000001 (C) 1111111 (D) 0010011

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2. The term 'Pentium' is related to what?
(A) Mouse (B) Hard Disk (C) Microprocessor (D) DVD

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3. Memory management is a feature of
(A) Processor (C) Operating System
(B) Applications software (D) MS Word

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4. The content of a 4-bit register is initially 1101. The register is shifted 2 times to the right with the serial input being 1011101. What is the content of the register after each shift?

(A)1110, 0111 (B) 0001, 1000 (C)1101, 1011 (D) 1001, 1001

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5. Which is true for a typical RISC architecture?

(A) Micro programmed control unit.
(B) Instruction takes multiple clock cycles.
(C) Have few registers in CPU.
(D) Emphasis on optimizing instruction pipelines.

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6. When an instruction is read from the memory, it is called

(A) Decode cycle (B) Fetch cycle
(C) Instruction cycle (D) Execute

---

7. Which activity does not take place during execution cycle?

(A) ALU performs the arithmetic & logical operation.
(B) Effective address is calculated.
(C) Next instruction is fetched.
(D) Branch address is calculated & Branching conditions are checked.

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8. _____ is concerned with the way the hardware components operate to form computer system.
(A) Computer architecture. (C) Computer organization.
(B) Computer design. (D) Computer implementation

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9. Which of the memory holds the information when the Power Supply is switched off?
(A) Static RAM (B) Dynamic RAM (C) EEROM (D) None of the above

---

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10. In Boolean expression A+BC equals storage is _____.

(A) (A+B)(A+C) (B) (A'+B)(A'+C) (C)(A+B)(A'+C) (D) (A+B)C

---

11. Which of the following is not a characteristic of a RISC architecture.

(A) Large instruction set
(B) Simple addressing modes
(C) One instruction per cycle
(D) Register-to-register operation

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12. Let $x = 0.125E+01$, $y = (1.01)_2$ and $z = (1.2)_8$. Which of the following is true?

(A) *x*, y and z are equal
(B) Only *x* and y are equal
(C) Only *x* and z are equal
(D) All *x*, y and z are different

---

13. Consider the following algorithm segment

```
x, i, j : integer
x = 0
for i from 0 to 19 do
    for j from i + 1 to 20 do
        x ← x + 1
    endfor
endfor
```

The value of x after the execution of the segment is

(A) 171 (B) 190 (C) 342 (D) 210

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14. Consider the following C statements:

$P: for\ (i = 0;\ i < 8;\ i\ +\!= 3)\ \{printf\ (" * ");\}$
$Q: for\ (i = 5;\ i > 0;\ i\!-\!= 2)\ \{printf\ (" * ");\}$
$R: for\ (i = 0;\ i <\!= 9;\ i\ +\!= 3)\ \{printf\ (" * ");\}$
$S: for\ (i = 0;\ i < 7;\ i\!+\!= 3)\ \{printf\ (" * ");\}$

Which of the following statement is true?

(A) P, Q, R and S give the same output
(B) P and S give the same output
(C) Q and R give the same output
(D) P, Q and S give the same output.

---

15. The Boolean expression $(x + y)(y + \bar{z})(z + \bar{x})$

(A) xyz (B) $xy\bar{z}$ (C) $(\bar{x} + z)y$ (D) $(x + \bar{z})y$

---

16. The In signed-magnitude binary division, if the dividend is $(11100)_2$ and divisor is $(10011)_2$ then the result is

(A) $(00100)_2$ (B) $)(10100)_2$ (C) $(11001)_2$ (D) $(01100)_2$

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17.

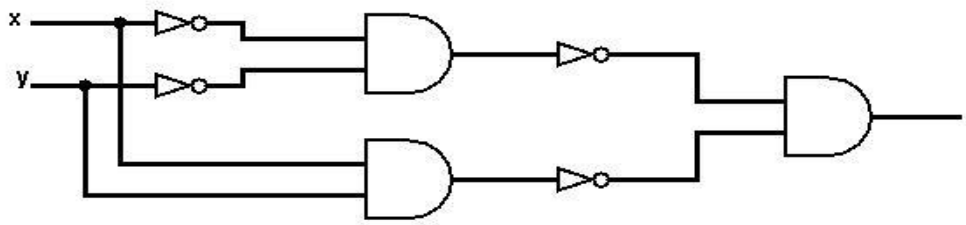

Figure 1

The logic circuit diagram given in figure 1 is equivalen to:

(A) AND gate (B) OR gate (C) NAND gate (D) XOR gate

18.

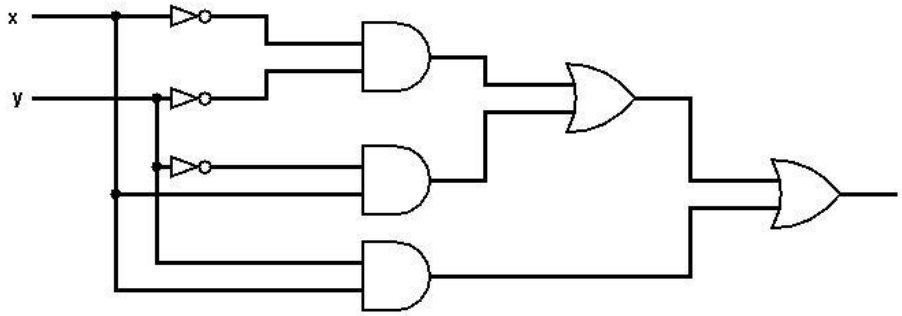

Figure 2

The logic circuit shown in Figure 2 is equivalent to the Boolean expression

(A) $x + y$ (B) $x + \bar{y}$ (C) $\bar{x} + y$ (D) $\bar{x} + \bar{y}$

19. Consider the following program written in pseudocode

function swap(a, b: integer)
begin
temp: integer
temp ← a
a ← b
b ← a
end
	algorithm
	begin
	x, y : integer
	x ← 2
	y ← 3
	swap(x,y)
	print("x=", x," y= ",y);
	end

The output of the program is

(A) *x=2 y=2* (B) *x=2 y=3* (C) *x=3 y=2* (D) *x=3 y=3*

20. n bits in operation code imply that there are _____ possible distinct operators

(A) 2n (B) 2^n (C) n/2 (D) n^2

21. Match the file extenxions in List 1 with the corresponding application in List 2

List 1	**List 2**
1. mp3	P. image
2. xls	Q. music
3. jpeg	R. database
4. mdb	S. spreadsheet

(A) (1,Q), (2,S), (3,R), (4,P)
(B) (1,Q), (2,S), (3,P), (4,R)
(C) (1,Q), (2,P), (3,S), (4,R)
(D) (1,Q), (2,R), (3,P), (4,S)

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22. Match the items in **List A** with the items in **List B**

List A	**List B**
1. Operating systems	P. Pentium
2. System software	Q. Linux
3. Processor	R. Router
4. Network	S. Antivirus

(A) (1,Q), (2,S), (3,P), (4,R)
(B) (1,Q), (2,R), (3,P), (4,S)
(C) (1,P), (2,S), (3,Q), (4,R)
(D) (1,P), (2,R), (3,S), (4,Q)

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23. What action is taken when the processor under execution is interrupted by a non-maskable interrupt?

(A) Processor serves the interrupt request after completing the execution of the current instruction.
(B) Processor serves the interrupt request after completing the current task.
(C) Processor serves the interrupt request immediately.
(D) Processor serving the interrupt request depends upon the priority of the current task under execution.

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24. Buffering is

(A) the process of temporarily storing the data to allow for small variation in device speeds
(B) a method to reduce cross talks
(C) storage of data within transmitting medium until the receiver is ready to receive.
(D) a method to reduce routing overhead.

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25. During the execution of a program, temporary result is stored in

(A) AR (Address Register)
(B) PC (Program Counter)
(C) IR (Instruction Register)
(D) AC (Accumulator)

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26. Cache memory acts between

(A) CPU and RAM (C)RAM and ROM

(B) CPU and Hard Disk (D)None of these

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27. Virtual memory consists of

(A) Static RAM (C) Dynamic RAM

(B) Magnetic memory (D) None of these

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28. The communication between the components in a microcomputer takes place via the address and

(A) I/O bus (B) Data bus (C) Address bus (D) Control lines

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29. An instruction pipeline can be implemented by means of

(A) LIFO buffer (C) FIFO buffer

(B) Stack (D) None of the above

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30. An address in main memory is called

(A) Physical address (C) Logical address

(B) Memory address (D) Word address

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31. $(-27)_{10}$ can be represented in a signed magnitude format and in a 1's complement format as

(A) 111011 and 100100 (C)100100 and 111011

(B) 011011 and 100100 (D) 100100 and 011011

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32. The 2s compliment form (Use 6 bit word) of the number 1010 is

(A) 111100. (B) 110110. (C) 110111. (D) 1011.

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33. A page fault

(A) Occurs when there is an error in a specific page.

(B) Occurs when a program accesses a page of main memory.

(C) Occurs when a program accesses a page not currently in main memory.

(D) Occurs when a program accesses a page belonging to another program.

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34. Indicate which of the following is not true about an interpreter

(A) Interpreter generates an object program from the source program

(B) Interpreter is a kind of translator

(C) Interpreter analyses each source statement every time it is to be executed

(D) None of the above

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35. CISC machines

(A) have fewer instructions than RISC machines

(B) use more RAM than RISC machines

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(C) have medium clock speeds
(D) use variable size instructions

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36. Multiprogramming refers to
(A) having several programs in RAM at the same time
(B) Multitasking
(C) writing programs in multiple languages
(D) Sharing processor time between many processes

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37. The scheduling in which CPU is allocated to the process with least CPU-burst time is called
(A) Priority Scheduling
(B) Shortest job first Scheduling
(C) Round Robin Scheduling
(D) Multilevel Queue Scheduling

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38. A program in execution is called
(A) Process (B) Instruction (C) Procedure (D) Function

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39. Interval between the time of submission and completion of the job is called
(A) Waiting time
(B) Turnaround time
(C) Throughput
(D) Response time

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40. set of techniques that allow to execute a program which is not entirely in memory is called
(A) demand paging
(B) (C)auxiliary memory
(C)virtual memory
(D)secondary memory

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41. _____ is a technique of temporarily removing inactive programs from the memory of computer system
(A) Swapping (B) Spooling (C) Semaphore (D) Scheduler

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42. A driver which has been incorporated in to the ROM of a hardware is called
(A) Device (B) BIOS (C) Firmware (D) CMOS

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43. An Operating System
(A) Links a program with the subroutine it references
(B) Provides a layered user interface to the hardware
(C) Enable a programmer use software procedure
(D) Can develop other operating systems

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44. Which of the following is NOT often used during car assembly?
(A) CAD/CAM system
(B) Stock control and order processing
(C) Microprocessor
(D) Simulation and modelling

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45. A record data structure is

(A) A collection of objects of possibly different data types that are processed together
(B) A collection of objects of the same data type
(C) A collection of objects which must not be of the same data type
(D) A collection of objects which must be on the same data type and process separately

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46. What is the purpose of software presentation tools?

(A) To design a good webpage for an audience
(B) To design a good software package for an audience
(C) To provide a good multimedia experience to an audience
(D) To give a good delivery of information to an audience

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47. The memory allocation strategy in which the memory manager places the process in the first unallocated block that is large enough to accommodate the process is called.

(A) Best Fit (B) Worst Fit (C) First Fit (D) FIFO

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48. Before proceeding with its execution, each process must acquire all the resources it needs is called

(A) No pre-emption (B) circular wait (C) starvation (D) hold and wait

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49. The following processor can be dual core or quart core processor

(A) Pentium (B) core i3 (C) core i5 (D) core i7

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50. The ascending order or a data hierarchy is _____

(A) bit -bytes - fields - record - file - database.
(B) bit - bytes- record - field -file - database.
(C) bytes - bit - field- record - file - database.
(D) bytes- bit -record - field - file -database

I prophesize your success in Jesus name!!!

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