



LITTORAL COMPUTER SCIENCE TEACHERS ASSOCIATION (LICSTA)

GENERAL CERTIFICATE OF EDUCATION MOCK EXAMINATION

ADVANCED LEVEL

SUBJECT TITLE	0795 – COMPUTER SCIENCE	MARCH 2023
PAPER NUMBER	1	

Mobile phones are NOT allowed in the examination room

Time Allowed : One Hour Thirty Minutes (1H: 30M)

INSTRUCTIONS TO CANDIDATES

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

- 1 USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION
- 2 DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

Before the examination begins

- 3 Check that this question booklet is headed “795 – COMPUTER SCIENCE 1”
- 4 Insert the information required in the space provided above
- 5 Insert the information required in the spaces provided in the answer sheets using your HB pencil:

Candidate Name, Centre Number and Name, Subject Code Number and Paper Number

How to answer the questions in this examination

- 6 Answer ALL the 50 questions in this Examination. All Questions carry equal marks
- 7 Non-programmable calculators may be used
- 8 Each question has FOUR suggested answers A, B, C, D) Decide on which answer is correct, find the number of the question on the Answer Sheet and Draw a horizontal line across the corresponding letter to join the square brackets for the answer you have chosen. For example, if your correct answer is D, mark D as shown below
[A] [B] [C] [D]
- 9 Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about answer, erase the first mark carefully and then mark your new answer.
- 10 Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to the question later.
- 11 Do all rough work in this booklet, using, where necessary, the blank spaces in the question booklet.

You must not take this question booklet out of the examination room.

ALL QUESTIONS BOOKLETS AND ANSWER SHEETS WILL BE COLLECTED AT THE END OF THE EXAMINATION

1. What is the kernel of an Operating System?
 - A. The central components of an operating system
 - B. The part of the OS that are not loaded into the memory
 - C. The start-up instructions for the computer
 - D. The parts of the OS that interact with peripherals.
2. In the memory Hierarchy, the fastest memory is?
 - A. Cache Memory
 - B. Hard Drive
 - C. RAM
 - D. Floppy Disk
3. What is multitasking in computing
 - A. A CPU core that can run more than one process at a time
 - B. A computer that can handle multiple input devices
 - C. Multiple users can be logged in at the same time.
 - D. All of the above
4. Using a system to represent real world situations during system development is known as:
 - A. Modeling
 - B. Prototyping
 - C. Simulation
 - D. Designing
5. One function of the Operating System in terms of memory management is:
 - A. Spoofing
 - B. Booting
 - C. Synchronization
 - D. Queuing
6. Which of the following is not a state that a process in memory can be in?
 - A. Read to run
 - B. Running
 - C. Blocked
 - D. Fixed
7. Which technique is used to coordinate the speed difference between 2 devices in communication?
 - A. Synchronization
 - B. Scheduling
 - C. Spoofing
 - D. Buffering
8. A CPU has 16-bit program counter. This means that the CPU can address:
 - A. 32K Memory locations
 - B. 64K Memory locations
 - C. 16K Memory locations
 - D. 256K Memory locations
9. A reserved section of memory which stores frequently accessed files is known as:
 - A. RAM
 - B. Hard Drive
 - C. Buffer
 - D. Cache
10. It controls all peripherals connected to a computer system
 - A. Bus
 - B. OS
 - C. Mother Board
 - D. Device Drivers
11. In mesh topology, relationship between one device and another is:
 - A. Peer to Peer
 - B. Server to Peer
 - C. Client – Server
 - D. Peer to Server
12. The OSI layer that contains Routers is?
 - A. Transport Layer
 - B. Network Layer
 - C. Session Layer
 - D. Presentation Layer
13. The process of converting plain text to cypher text is known as:
 - A. Authentication
 - B. Decryption
 - C. Encryption
 - D. Data Security
14. Communication between a receiver and a radio station
 - A. Full duplex
 - B. Half duplex
 - C. Simplex
 - D. None of the above
15. The best security backup location to ease data access at any time is:
 - A. Hard drive
 - B. CD-ROM
 - C. Cloud Storage
 - D. USB Drive

16. A mathematical model with a collection of operations defined over its values is called?
- Data Structures
 - Algorithm
 - Primitive Data Types
 - Abstract Data Types
17. A sort which searches through a list to exchange the first element with any element less than it and then repeat with a new element at subsequent positions is called?
- Quick Sort
 - Bubble Sort
 - Insertion Sort
 - Selection Sort
18. Which of the following data structures is used to hold jobs waiting to be run by the computer?
- Binary Tree
 - Linked List
 - Stack
 - Queue
19. Which of the following data structures CANNOT be used to store non-homogenous data elements?
- Pointers
 - Records
 - Arrays
 - None of the above.
20. Which of the following algorithm is best for searching for an item in an ordered list of numbers?
- Binary search
 - Quick search
 - Bubble search
 - Sequential search
21. When a code is compiled, the outcome is known as
- Executable Code
 - Object Code
 - Output results
 - Source Code
22. A factor to consider when choosing a programming language for a given task is:
- Programming skills
 - Language availability
 - Program compatibility with others
 - All of the above
23. An example of universal gate is:
- AND
 - OR
 - NOR
 - XOR
24. The representation of the design of the solution to a computer problem is
- Flow Chart
 - Pert Chart
 - Pseudo code
 - Algorithm
25. The feature of object oriented programming paradigm which makes use of code reuse is
- Class
 - Polymorphism
 - Inheritance
 - Encapsulation
26. The values returned by a programming language function are often passed into other functions or procedures
- As output
 - As parameters
 - By value
 - By reference
27. Algorithm or problem solved is sometimes described as hard or intractable. This is often a measure of:
- How much time is needed to produce the program
 - How much time a computer needs to execute the program
 - How complex a program can be to the programmer
 - How complex the program can be to the computer
28. What is the output of the following code fragment

```

1. y = 0
2. k = 2
3. For y=0 To 10 Do
4.   IF k>9 Do
5.     Output WELCOME
6.     k=k+3
7.   EndIF
8. EndFor

```

- A. Welcome

- B. No Output
C. Welcome Welcome Welcome
D. 5
29. The complexity of an algorithm is measured in terms
A. Size
B. Cost
C. Space and Time
D. Run time
30. A mathematical notation used to evaluate the efficiency of an algorithm
A. F notation
B. S notation
C. Big-O notation
D. Algorithm notation
31. Which of the following languages support multi paradigm?
A. Java
B. PASCAL
C. Python
D. C
32. Which activity is common to all stages of the SDLC?
A. Design
B. Coding
C. Testing
D. Documentation
33. Which system development methodology is best for small scale projects whose requirements are not clearly defined
A. Water Fall
B. SCRUM
C. KANBAN
D. Prototyping
34. It is a characteristics of the traditional system development methodology
A. Straight forward
B. Simple and ideal
C. Too much documentation
D. Good for small scale projects
35. A detailed study of an existing system when developing an information system is referred to as
A. Feasibility
B. System Design
C. System Planning
D. System Analysis
36. Which phase of the SDLC does cost-benefit analysis take place
A. Design
B. Coding
C. Feasibility study
D. None of the above
37. Which of the following testing is done by the end user
A. Unit Testing
B. Integration testing
C. Acceptance testing
D. None of the above
38. When a programmer test source code for efficiency during software development this is known as:
A. Gray box testing
B. White box testing
C. Black box testing
D. None of the above
39. An object encapsulates
A. Data
B. Behavior
C. State
D. Data and behavior
40. What is the binary equivalent of the decimal number 368
A. 10110000
B. 11011000
C. 11101000
D. 11110000
41. The hexadecimal number for $(19.5)_{10}$ is:
A. 5F.8
B. 5A.4
C. 9A.B
D. 2E.F
42. What is the minimum number of bits required to address a 32K memory?
A. 16bits
B. 12bits
C. 14bits
D. 10bits
43. Two components of the Von Neuman Architecture are:
A. Memory and processor
B. Hard disk and RAM
C. Processor and CPU
D. ALU processor
44. A relational database table that is atomic is in

- A. 1NF
- B. 2NF
- C. 3NF
- D. 4NF

45. Another name of a database table record is known as

- A. Attribute
- B. Column
- C. Tuple
- D. Filed

46. Which data type is best for holding numeric, characters and numbers

- A. Number
- B. Date/Time
- C. Text
- D. Auto number

47. What are the conditions to create a relationship in database?

- A. The two tables must have a primary key
- B. The primary key of the parent table must be created in the secondary table
- C. The two tables must have a foreign key
- D. The two tables must be atomic

48. Which application software is best for a blue print designer

- A. CAM
- B. MS publisher
- C. CAD
- D. MS Word

49. One of the economic and business benefits of social media today is

- A. Use for entertainment
- B. For marketing
- C. For research
- D. For storing information

50. The unauthorized copying and distribution of software is called?

- A. Stealing
- B. Duplication
- C. Piracy
- D. Privacy

END

GO BACK AND CHECK YOUR WORK