Level: 4
Course Title: Software Security
Course Code: CS 354
Time: 2 Hours
Date: 11- 1 - 2023

Arab republic of Egypt
Ministry of Higher Education
Tanta University
Faculty of Computers and Information Science

Model: (1)

Final Exam – 1st Term 2022/2023	**Total Assessment Marks: 60**

Part 1: Choose the correct answer among the choices (only one answer for each question)

1. **In computer security, _____ means that computer system assets can be viewed only by authorized parities.**
   a) Integrity. b) Confidentiality.
   c) Availability. d) Non-repudiation.

2. **…….means that some unauthorized party (person, program) has gain access to an asset**
   a) Interruption. b) Interception.
   c) Modification. d) Fabrication.

3. **The term "<u>Interruption threat</u>" means:**
   a) Changing values in database or modifying data being transmitted
   b) An asset of the system becomes lost, unavailable or unusable
   c) Counterfeit objects on a computing system
   d) Some unauthorized party has gain access to system assets

4. **In the context of computing security, <u>Modification</u> means:**
   a. Changing the values in a database modifying a program so that it performs an additional computation.
   b. Counterfeit objects on a computing system.
   c. An asset of the system becomes lost.
   d. Unauthorized disclosure of the stored values in a database.

5. **If an unauthorized user inserts extra records in a database, this causes……security threat.**
   a) Fabrication. b) Interception.
   c) Modification. d) Interruption.

6. **Which of the following is the best securing solution among the listed alternatives to mitigate the security risk of passwords being disclosed to an unauthorized individual?**
   a. Adding to the password a unique generated number before hashing it
   b. Encrypting passwords using conventional encryption.
   c. Encrypting passwords using one-way encryption.
   d. Only some operating system modules that really need access to password list can access it.

7. **Which of the following passwords is the strongest?**
   a) Ahmed1980 b) 20111981
   c) EG2030 d) 3_ASuy'W?

8. The number of keys needed for 10 users to communicate using symmetric cryptosystem is:

a) 25 b) 10

c) 50 d) 45

9. ……. is verification that the credentials of a user or other system entity are valid.

a) Adequacy b) Audit

c) Authorization d) Authentication

10. Authentication done by the user's voice is a type of authentication the user ……..

a) has b) knows c) is d) Context related to

11. Triple-DES with two keys is defined by C = $E_{K1}(D_{K2}(E_{K1}(P)))$, if K1 equals K2 , the triple-DES becomes:

a) Double DES. b) Useless, data is not encrypted

c) Single DES. d) Useless, data cannot be decrypted.

12. Which of the following is correct regarding asymmetric cryptography?

a) Encryption and decryption take the same amount of time.

b) The same key is used for encryption and decryption.

c) Different keys are used for encryption and decryption.

d) Cryptographic operations are one-way, and not reversible.

13. …….. separates subjects and objects, enforcing that a subject can access only those objects expressly allowed by security policy.

a) Access control directory. b) The Reference monitor.

c) Access control list. d) Both a) and c).

14. ……. is the one who studies encryption and encrypted message with the goal of finding hidden meaning of the message.

a) Cryptology b) Cryptanalyst

c) Cryptography d) Cryptosystem

15. DES encrypts data as:

a) 64-bits blocks using 64-bits key. b) 64-bits blocks using 56-bits key.

c) 56-bits blocks using 64-bits key. d) 56-bits blocks using 56-bits key.

16. The basic mechanism for protection in OS is ……..

a) Cryptography b) Modularity

c) Separation d) Firewall

17. In ……. attack the cryptanalyst has access not only to the ciphertext of several messages, but also to the plaintext of the messages, and trying to deduce the encryption key.

a) Ciphertext only b) Chosen plaintext

c) Known plaintext d) Adaptive-chosen plaintext

18. Which of the following is classified as benign virus?

a) A virus that exhausts some resources.

b) A virus that deletes some system files.

c) A virus that displays a message on the screen.

d) A virus that locks the user's data with cryptographic keys

19. …….is a secret entry point into a program that allows someone that is aware of it to gain access without going through the usual access procedure.

a) A logic bomb
b) A Trojan horse
c) A trapdoor
d) A password

20. Which one of the following sentences is not true?

a) Malicious code can do harm to program and data.
b) Malicious code can lie dormant until some events trigger it to cause harm.
c) Malicious code can be triggered by time or condition
d) Malicious code runs under the user's authority, with his/her permission and knowledge.

21. Which of the following isn't correct regarding biometric authenticators?

a) They are something the user is.
b) They can't be simply forged.
c) They are cheap compared with passwords.
d) Fingerprint is the least accurate one among them.

22. Example of block cipher is ……

a) Caesar cipher
b) RC4
c) One time pad
d) AES

23. State whether true of false for the following two statements:

i. It is impossible for antivirus programs to detect a polymorphic virus.
ii. Asymmetric encryption is faster than symmetric ones.

a) True, False.
b) False, True.
c) True, True.
d) False, False.

24. In the context of OS; Logical separation approach ……

a) Increases the resource sharing compared to physical separation.
b) Reduces the resource sharing compared to physical separation.
c) Increases the security level compared to physical separation.
d) is the worst one among physical, temporal, and logical approaches

25. Assume A would like to initiate a session with B, when A send a request to the public key authority, then the authority will respond with …….

a) B's public key, request and time encrypted with the authority's private key.
b) B's public key, request and time encrypted with the authority's public key.
c) A's publick key, request and time encrypted with the authority's public key.
d) B's publick key, request and time encrypted with A's private key.

Part 2: Answer the following questions:

1. How many different password permutations you can generate under the following system requirements:

   a. A string of length 4 can be formed of lowercase English letters.

   b. A string of length 4 can be formed of lowercase English letters start and end with letter x.

   Hint: there are 26 letters in the English alphabets and repetition of characters is allowed.

2. List two advantages of biometrics authenticators over passwords.

3. Compare between Stream ciphers and Block ciphers.

4. Compare between Symmetric and Asymmetric encryption.

With best wishes

Dr. Moustafa El-Ashry

Level: 4
Course Title: Selected Topics in AI
Course Code: CS 467
Date: 6 – 6 - 2023

Model 1

Arab republic of Egypt
Ministry of Higher Education
Tanta University
Faculty of Computers and Information Science

Final Exam – 2nd Term 2022/2023	**Total Assessment Marks: 60**

Choose the correct answer among the choices (only one answer for each question)

1. **In Turing test, If the interrogator can distinguish the machine from the human then ……**
   a. The machine is intelligent b. The machine is not intelligent
   c. The interrogator is intelligent d. The interrogator is not intelligent
2. **……..involves knowing how to do something - for example How to install a window.**
   a. Heuristic knowledge b. Procedural knowledge
   c. Structural Knowledge d. Meta-knowledge
3. **To rate a search technique, what are the four criterion used?**
   a. Speed, optimality, size, and space b. Speed, time, space and optimality
   c. Completeness, speed, space and time d. Completeness, optimality, time, and space
4. **Which is the best way to go for Game playing problem?**
   a. Random approach b. Linear approach
   c. Optimal approach d. Heuristic approach
5. **If given the node and goal below for 8-Puzzle Problem:**
   Then the sum of distances out of the place is:
   a. 6 b. 5 c. 4 d. 7

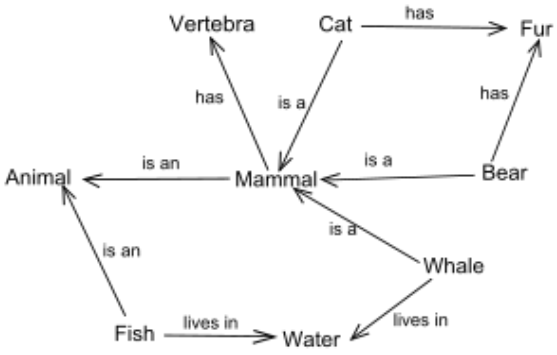
2	8	3
1		4
7	6	5

Node State

1	2	3
8		4
7	6	5

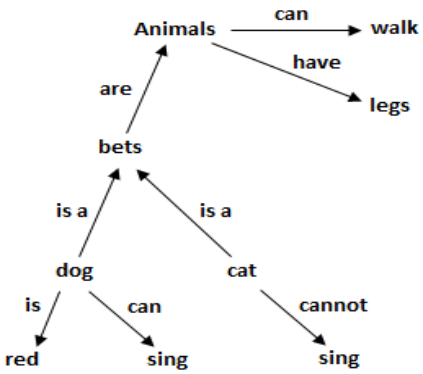
Goal State

6. **…….is a science of translating actual knowledge into a format that can be used by the computer?**
   a. Intelligence b. Knowledge Representation c. Planning d. Search
7. **In knowledge type, if you want to know about heart attack, please read this book is example of……..:**
   a. Meta-knowledge b. Declarative knowledge
   c. Procedural knowledge d. Heuristic knowledge
8. **In the following 'Semantic Network' example, what piece of knowledge cannot be inferred?**
   a. Cat is an animal
   b. Whale has Vertebra
   c. Fish is an animal
   d. Bear lives in water



9. **Rational agent is the one who always does the right thing.**
   a. True b. False
10. **Authors think AI falls into ……. main approaches**
    a. 2 b. 4 c. 6 d. 8

11. **Planning .....**
    a. is very much knowledge-intensive
    b. does not have a role in expert systems
    c. has many applications in manufacturing
    d. is important for designing a robot controller
12. **The two most fundamental concerns of AI researchers are .....**
    a. Intelligence and Knowledge
    b. Search and Intelligence
    c. Knowledge and Search
    d. Computer Science and Mathematics
13. **In the following semantic Network, which sentence is true?**
    a. Animals are bets and can walk
    b. A dog is a bet and can not sing
    c. A dog can sing, but a cat cannot
    d. Animals cannot walk and have legs



14. **In the following semantic Network, which sentence is not true?**
    a. A dog can sing, but a cat cannot.
    b. Animals can walk and have legs.
    c. Animals are bets and can walk.
    d. A dog is a bet and is red.
15. **In a two-player games, the static evaluation function is defined as:**
    a. f (n) = lose positions – win positions.
    b. f (n) = win positions – lose positions.
    c. f (n) = the path cost from the start node to node n.
    d. f (n) = estimated cost of the cheapest path from the state at node n to a goal state.
16. **In Minimax with Alpha Beta Pruning search, what does Beta define?**
    a. The best move that can be made to maximize
    b. The best move that can be made to minimize
    c. Any move that is taken away from the goal.
    d. Any move that is taken toward the goal.
17. **The search algorithm which is similar to the minimax search, but removes the branches that don't affect the final output is known as.....**
    a. Depth-first search
    b. Breadth-first search
    c. Alpha-beta pruning
    d. None of the above
18. **The maximum depth to which the alpha-beta pruning can be applied.**
    a. 8 states
    b. 6 states
    c. 10 states
    d. Any depth
19. **Which value is assigned to alpha and beta in the alpha-beta pruning?**
    a. Alpha = max & Beta = max
    b. Alpha = min & Beta = min
    c. Alpha = min & Beta = max
    d. Alpha = max & Beta = min
20. **In AI game search problems, a move is classified as not beneficial if_____**
    a. The lose position < win positions
    b. Alpha ≥beta
    c. It is a minimum value for the opponent's moves
    d. It is a maximum value for your moves
21. **Which search is similar to minimax search?**
    a- Hill-climbing search
    b- Breadth-first search
    c- Depth-first search
    d- All of the above
22. **In conceptual graph, if a graph contains two duplicate relations, then one of them may be deleted, along with all its arcs. What this operator is called .....**
    a- Copy
    b- Restrict
    c- Join
    d- Simplify.
23. **In robot's world, which one of the following is not a true relation for clear (X), ontable (X), and gripping ().**
    a. (∀ X)(∀ Y) (unstack(X,Y) → ((clear(Y) ∧ gripping(X)) ← (on(Y,X) ∧ clear(X) ∧ gripping( ))).
    b. (∀ X) (putdown(X) → ((gripping( ) ∧ ontable(X) ∧ clear(X)) ← gripping(X))).
    c. (∀ X) (pickup(X) → (gripping(X) ← (gripping( ) ∧ clear(X) ∧ ontable(X))))
    d. (∀ X) (∀ Y) (stack(X,Y) → ((on(X,Y) ∧ gripping( ) ∧ clear(X)) ← (clear(Y) ∧ gripping(X)))).
24. **Frames are representation technique that evolved from .....**
    a. semantic networks
    b. Predicate calculus
    c. Scripts
    d. Trees

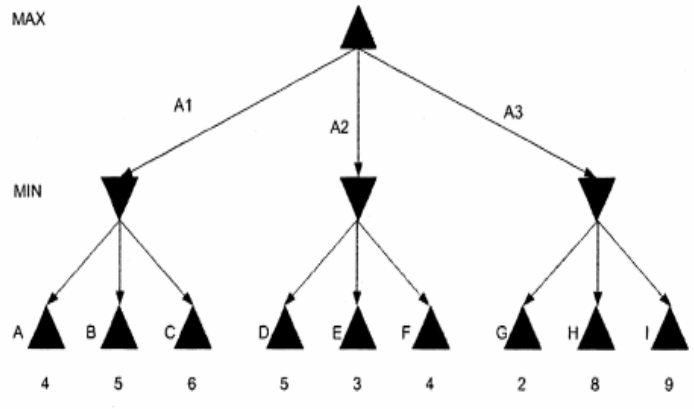
Consider the following graph of a two player game tree for questions 25 & 26

25. The value of the top MAX node will be:

a. 3 b. 4
c. 6 d. 9

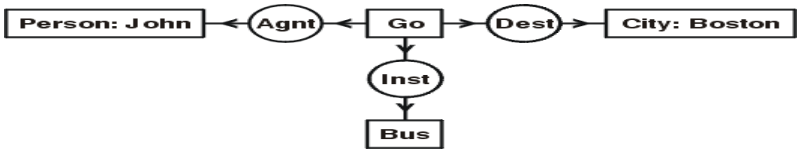
26. The first node will cut by using alpha beta pruning is:

a. C b. E
c. H d. I



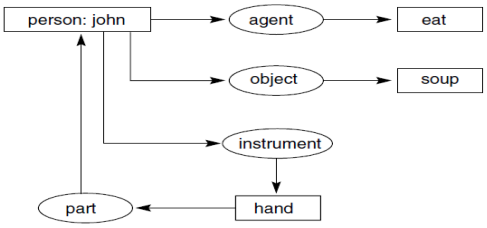
27. Following simple conceptual graph represents a sentence in English. What it is?

a. John goes to City by Bus
b. John goes to Boston by Bus
c. John goes to Bus by Boston
d. John goes to Bus by City



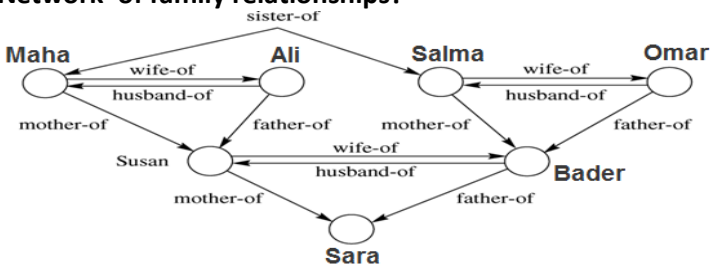
28. In the following conceptual graph, represents as predicate calculus as ….

a. Eat(john, soup) ^ ¬ use (john, hand)
b. Eat(john, soup) V ¬ use (john, hand)
c. Eat(john, soup) ^ use (john, hand)
d. Eat(john, soup) **V** use (john, hand)



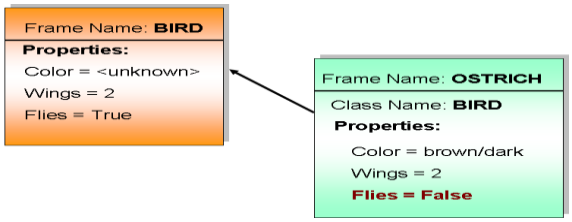
29. What can be inferred from the following 'Semantic Network' of family relationships?

a. Maha is a sister of Omar
b. Sara is a granddaughter of Omar
c. Bader and Ali are brothers
d. Susan is a daughter of Sara



30. In the following 'Frame' example, what piece of knowledge can be inferred?

a. All birds with wings fly
b. Some birds have two wings
c. Some birds with wings do not fly
d. All birds are brown or dark in color



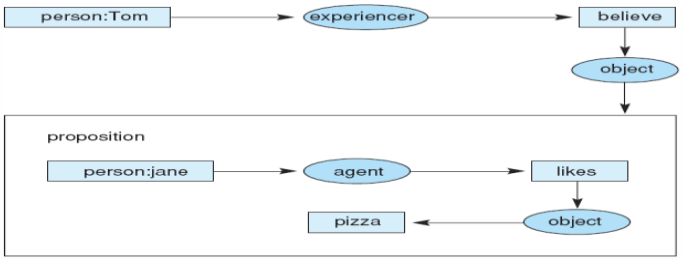
31. In triangle table, the set of preconditions of each of some actions are ……

a. In the column before that action
b. In the row before that action
c. In the row after that action
d. In the column after that action

32. Which of the following are correct?

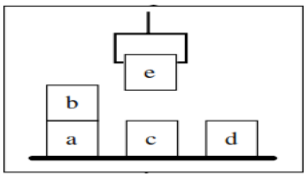
a. (∀ X) (clear(X) ←¬(∃ Y) (on(Y,X)))
b. (∀ Y) gripping( ) ↔¬(gripping(Y))
c. (∀ X) (pickup(X) → (gripping(X) ← (gripping( ) ∧ clear(X) ∧ontable(X))))
d. All of the above

33. The below graph is the conceptual representation for which of the following statements:



a. Jane likes pizza
b. Tom likes Jane
c. Tom believes that Jane likes pizza
d. Jane believes that Tom likes pizza

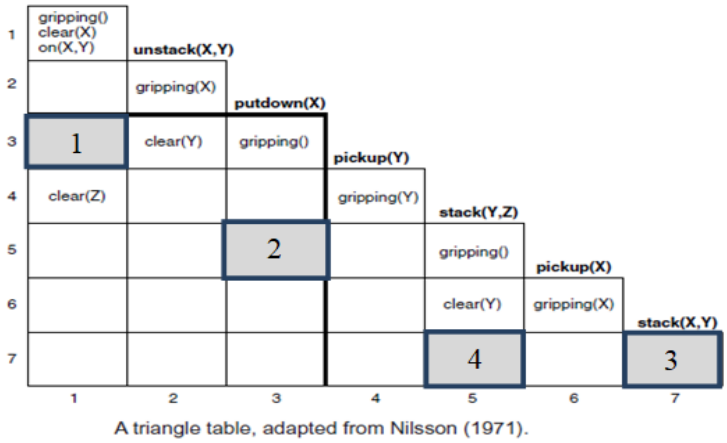
34. Determine the predicate which does not describe the state on the right.



a. gripping(e)
b. clear(d)
c. ontable(b)
d. on(b, a)

***In the Triangle table below for the macro action stack(X,Y) ∧ stack(Y,Z) of blocks world.**

Answer the following three questions:



A triangle table, adapted from Nilsson (1971).

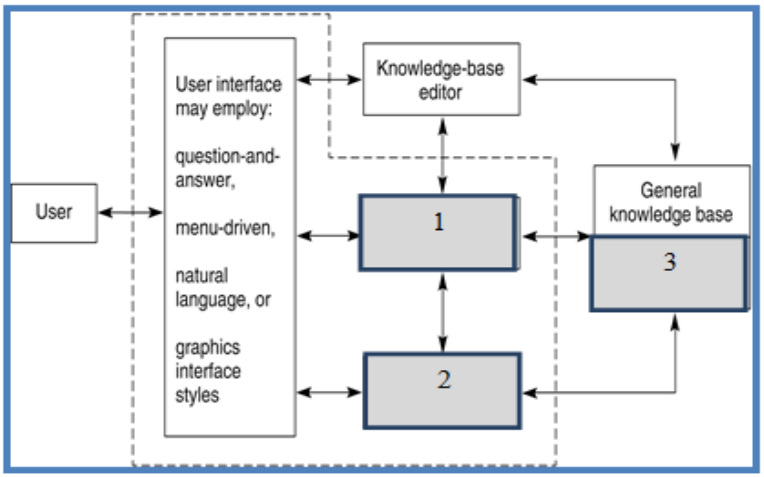
35. The blank number 1 is……
a. (clear(X) & on(Y,X)
b. gripping( ) & clear(X)
c. clear(X) & ontable(X)
d. ontable (Y)

36. The blank number 2 is……
a. (clear(X) & on(Y,X)
b. gripping( ) & clear(X)
c. clear(X) & ontable(X)
d. ontable (Y) & gripping( )

37. The blank number 3 is……
a. (clear(X) & on(Y,X)
b. gripping( ) & clear(X) & on(X,Y)
c. clear(X) & ontable(X)
d. ontable (Y) & gripping( )

***The following architecture of a typical expert system for a particular problem domain.**

Answer the following three questions:



38. The blank number 1 is……
a. Explanation System
b. Inference Engine
c. Case specific data
d. None of the above

39. The blank number 2 is……
a. Explanation Subsystem
b. Inference Engine
c. Case specific data
d. All of the above

40. The blank number 3 is……
a. Explanation System
b. Inference Engine
c. Case specific data
d. None of the above

With best wishes
Dr. Moustafa El-Ashry

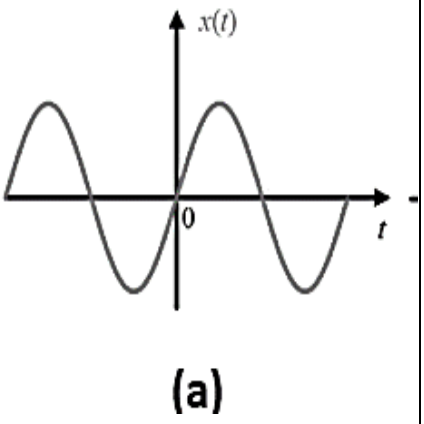
TANTA UNIVERSITY
FACULTY OF COMPUTERS AND INFORMATICS

EXAMINATION FOR (LEVEL 3)

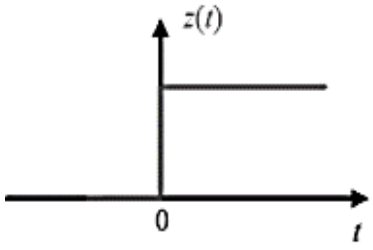
COURSE TITLE: SIGNALS AND SYSTEMS | COURSE CODE: IT341

DATE:10/1/2022 | TOTAL ASSESSMENT MARKS: 60 | PAGES : 2 TIME ALLOWED: 2HOUR

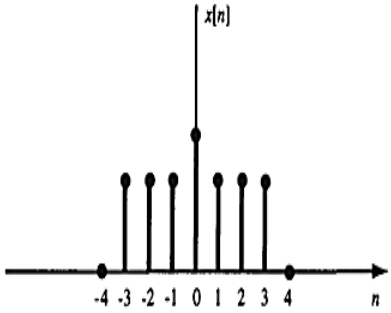
Q1)Check whether the following signals are even, odd, or neither even nor odd (12 marks)



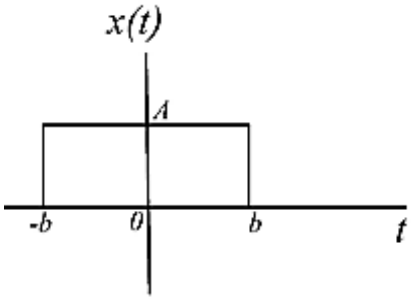
(a)



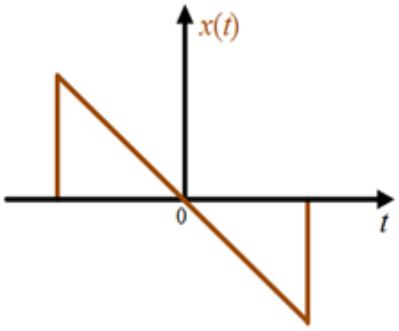
(b)



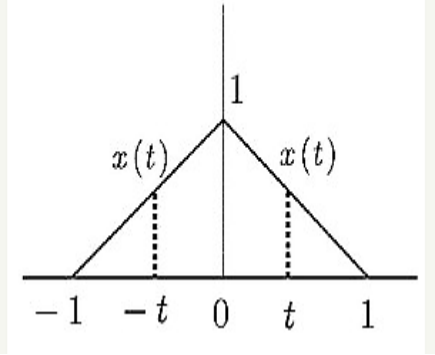
(C)



(d)



(e)



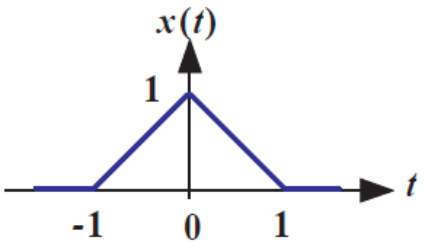
(f)

Q2)A CT signal *x*(*t*) is shown in the next Figure sketch and label each of the following functions: (4 marks)

1- **Y(t)=x($\frac{1}{2}$t)**
2- **Y(t)=x(2t)**

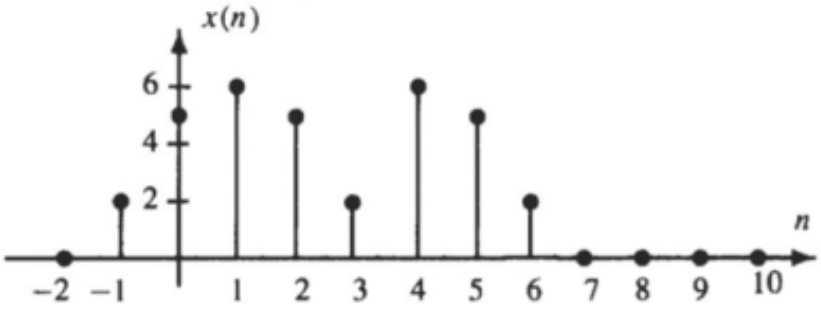
Q3)- Q4) Determine whether each of the following systems are causal with input x(t) and output y(t): (4 marks)

1- **Y(t)=X(3t)**
2- **2-Y=X(-t)**

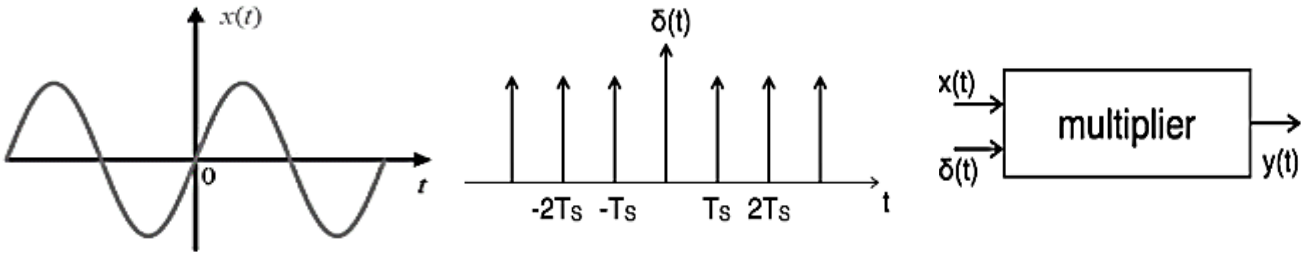


Q4)Sketch and carefully label each of the following signals: (8 marks)

(i) x[n - 2] (ii) 2x[2-n]



Q5) Apply the impulse sampling technique on the input signal x(t) to get y(t): (4 marks)



<u>Q6) Answer the following questions (28 Marks)</u>

1-What is the classification of a system?

2-State the properties of convolution

3-What is the main objectives of using fourier transformation

4-Find the lablace transform and Z-Transform of:

A) $\delta(t)$ **b) u(t)**

5-State the types of Z-Transform

Good luck

Dr. Aida Nasr

TANTA UNIVERSITY
FACULTY OF COMPUTERS AND INFORMATICS

EXAMINATION FOR (LEVEL 2)

COURSE TITLE: OPERATING SYSTEM | COURSE CODE: CS213

DATE:27/11/2022 | TOTAL ASSESSMENT MARKS: 20 | PAGES : 3 TIME ALLOWED: 2HOUR

Question 1: Complete the following:

1- ---------- is a guided medum type, while ---------- is a type of unguided medium

2- Wireless Personal Area Network (WPAN) uses ---------- IEEE standard

3- ---------- and ---------- are two ways to establish Virtual circuits

4- Segment is the output data unit of ----------layer

5- ---------- OSI model provides host to host communication

Question 2: Choose True (T) or False (F) for the following:

1. Microwaves use omnidirectional antennas that send out signals in all directions	
2. Frame Relay is a high-performance WAN protocol that operates at the physical and Data Link layers of the OSI reference model	
3. Infrared signals can be used for short-range communication	
4. CSMA/CD listens whether the shared channel for transmission is busy or not, and defers transmissions until the channel is free	
5. Collection occurs in ethernet and tokenring network	
6. Microwaves use omnidirectional antennas that send out signals in all directions	
7. Ethernet and token ring use CSMA/CD for error detection	
8. DHCP - Dynamic Host Configuration Protocol is used for allocation of dynamic IP addresses to computers in a network using multicast method	

Question 3: Answer the follwing questions

1. **Determine the dvices in each layer:**
   A. Physical layer
   B. Data link layer
   C. Network layer
2. **Compare between tree and mesh network topology**
3. **What is FDDI and when can we use it?**

TANTA UNIVERSITY
FACULTY OF COMPUTERS AND INFORMATICS

EXAMINATION FOR (LEVEL 1)

COURSE TITLE: OPERATING SYSTEM | COURSE CODE: CS341

DATE:11/1/2023 | TOTAL ASSESSMENT MARKS: 60 | PAGES : 4 TIME ALLOWED: 2HOUR

النموذج (1)

Q1) Choose the correcte answers:

1. **In Operating Systems, which of the following is/are CPU scheduling algorithms?**
   a) Priority b) Round Robin c) Shortest Job First d) All of the mentioned
2. **Amount of time to execute a particular process is called ----------_____.**
   A. Cpu Utilization B. Turn Around Time C. Throughput D. Dispatch Latency
3. **In a timeshare operating system, when the time slot assigned to a process is completed, the process switches from the current state to?**
   a) Suspended state b) Terminated state c) Ready state d) Blocked state
4. **Which one of the following is <u>not</u> true?**
   a) kernel remains in the memory during the entire computer session
   b) kernel is made of various modules which can not be loaded in running operating system
   c) kernel is the first part of the operating system to load into memory during booting
   d) kernel is the program that constitutes the central core of the operating system
5. **Cascading termination refers to the termination of all child processes if the parent process terminates _____**
   a) Normally or abnormally b) Abnormally c) Normally d) innrmal
6. **When a process is in a "Blocked" state waiting for some I/O service. When the service is completed, it goes to the _____**
   a) Terminated state b) Suspended state c) Running state d) Ready state
7. **When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place is called _____**
   a) dynamic condition b) race condition c) essential condition d) critical condition
8. **If a process is executing in its critical section, then no other processes can be executing in their critical section. What is this condition called?**
   a) mutual exclusion b) critical exclusion c) synchronous exclusion d) asynchronous exclusion
9. **To access the services of the operating system, the interface is provided by the _____**
   a) Library b) System calls c) Assembly instructions d) API
10. **CPU scheduling is the basis of _____**
    a) multiprogramming operating systems b) larger memory sized systems
    c) multiprocessor systems d) none of the mentioned
11. **Operating System manages-----**
    a. Memory b. Processor c. I/O devices d. All of the above
12. **GUI means --------**
    a. Graphic user interface b. Geographic user interface c. Graphical user interface
13. **If a process fails, most operating system write the error information to a _____**
    a) new file b) another running process c) log file d) none of the mentioned
14. **The _____ presents a uniform device-access interface to the I/O subsystem, much as system calls provide a standard interface between the application and the operating system.**
    a) Device drivers b) I/O systems c) Devices d) Buses
15. **Which of the following operating system runs on the server?**
    a)Batch OS b)Distributed OS c)Real-time OS d)Network OS

16. What type of memory stores data in a swap file on a hard drive?

a) Secondary memory b) Virtual memory c) Low memory d) RAM

17. What is the paging in the operating system?

a) Memory management scheme b) Network management c) Internet management scheme

18. Which of the following programs is loaded first when starting a computer?

a) Window desktop b) Network connection program C) Operating system d) CMD

19. Which of the following scheduling algorithm is non-preemptive scheduling?

a) SJF scheduling b) Round-Robin scheduling c) SRTF scheduling d)None of these

20. In Non-Uniform Memory access system, there is-----

a)shared memory b)one memory for each cpu c)no memory d)none

21. -------is finding and fixing errors, or bugs

a)Scheduling b) Debugging c)Profiling d) sequential

22. Parent may terminate the execution of children processes using the ----system call

a)close() b)exite() c) abort() d)delete()

23. ---- is the solution of data inconsistency when the processes modify the shared data concurrently

a) synchronization mechanism b) Mutual Exclusion c) consumer problem

24. In------ approach, the system keeps extra information of all the requests of all the processes in advance

a) Deadlock Prevention b) Deadlock Avoidance c) Deadlock Detection d) Deadlock Recovery

25. ------is a situation in which more than one process is blocked because it is holding a resource

a) synchronization mechanism b) Mutual Exclusion c) deadlock

26. A ---------is a type of bar chart that visualizes a work schedule

a)flowchart b) Gantt chart c)c_chart d)O_chart

27. Process synchronization can be done on which of the following levels-------

A. hardware B. software C. both hardware and software D. application

28. A process may spawn a new process. If it does, the creating process is called _____.

A. Child Process B. Parent Process C. Wakeup A Process. D. None

29. In the_____ the communicating processes exchange messages with one another to transfer information.

A. Message Passing Model B. Shared Memory Model C. Linker D. Compiler

30. _____is a type of computing that delivers computing, storage, and even applications as a service across a network.

A) Private network B. Hybrid NW C. Cloud Computing D. Google Drive

31. _____is a technology that allows operating systems to run as applications within other operating systems.

A. Cloud Computing B. Hybrid NW C. Virtualization D. Google Drive

32. The advantage of Linux OS_____

a)Open source b) Free Section c) Software Updates d) All of the above

33. A process can be _____

a)single threaded b. multithreaded c. both single threaded and multithreaded

34. Which one of the following is not a valid state of a thread?

a) running b) parsing c) ready d) blocked

35. Thread synchronization is required because _____

a. all threads of a process share the same address space

b. all threads of a process share the same global variables

c. all threads of a process can share the same files

d. all of the above

36. In _____ thread, each user-level thread maps to kernel thread

a)one to one b)many to one c)many to many d)one to many

37. Time it takes for the dispatcher to stop one process and start another running _____.

A. Cpu Utilization B. Turn Around Time C. Throughput D. Dispatch Latency

38. By _____the number of processors, we expect to get more work done in less time.

A. Increasing B. Decreasing C. Dual Core D. Batching

39. ____requires a mechanism to allow the failure to be detected, diagnosed, and corrected.

A. Fault Tolerance B. Graceful Degradation C. Asymmetric Multiprocessing

40. A _____manages the execution of user programs to prevent errors and improper use of the computer.

A. Control Program B. Kernel level C. System Programs D. Cpu

برجاء اجابه الاسئله من 44 الى 52 بداخل جزء MCQ

41. Rejester is larger than RAM

a)True b)false

42. there is no effect of applying premetive or non-primitive techniques on utilization

a)True b)false

43. scheduling means allocate resources to active processes

a)True b)false

44. All operating system types are open source

a)True b)false

45. In Mutual exclusion, one or more processes at a time can use a resource

a)True b)false

46. The service time of a process is the total amount of time it uses on the processor

a)True b)false

47. waiting time is a total time that a process spends in the ready queue waiting for a processor

a)True b)false

48. windows support many to many model threads

a)True b)false

49. P-threads is a parallel execution model

a)True b)false

process	Arrival time	Service time
P1	0	10
P2	2	2
P3	3	3
P4	5	7
P5	7	5
P6	8	1
p7	10	3

According to the table, answer the next questions

50. The results of applying SJF is :---------

51. The results of applying FIFO is :--------

52. The results of appling round robin with Q=5 is :--------

53. The results of applying the priority with primitive SJF is:----------

54. The results of applying the priority with non-primitive SJF is:----------

a)

p1		p6	p2	p3	p7	p5	p4
0	10	11	13	16	19	24	31

b)

p1		p2	p3	p4	p5	p6	p7
0	10	12	15	22	27	28	31

c)

p1		p2	p3	p4	p5	p6	P7	p1	p4
0	5	7	10	15	20	21	24	29	31

d)

p1	p2	p3	p5	p6	p5	p7	p4	p1
0 2	4	7	8	9	13	16	23	31

55. the average time of SJF is ---------

a) 6 b)8.3 c)11.3 d)7.5

56. the average time of RR is ----------

a) 6 b) 8.3 c) 11.3 d) 7.5

57. The finish time of RR is --------

a)30 b)29 c)31 d)22

58. the average of waiting time of FIFO is ----

a) 6 b)8.3 c)11.3 d)7.5

59. From the results of each scheduling algorithm, what is the best algorithm

a) FIFO b) SJF c) RR d) priority

60. The number of roundes of RR results is---

a) 2 b)3 c)4 d)1

Q2)Choose true T or false F according to the sentences meaning :

برجاء إجابة هذا الجزء بداخل جزء T or F

1. Dual mode consists of user mode and kernel mode
2. Round robin is a non-premitive algorithm
3. Developers should use real systems in embedded systems
4. Protection is a mechanism for controlling access of processes or users to resources defined by the OS
5. One of advantages of operating system is resource allocation
6. FIFO is a premetive algorithm
7. The instructions are designed as privileged, only executable in kernel mode
8. In hold and wait deadlock method: a process holding at least one resource is waiting to acquire additional resources held by other processes
9. Round robin is used for multiprogramming
10. The OS of multiprogramming can be used for multiprocessors system
11. Process may be passive entity or active entity
12. Interpreter has the function of the emulator
13. Amazon EC2 is one of cloud computing providers
14. Scheduling algorithm is considered as a mechanism
15. Operating system is considered as a policy
16. Concurrent modification of shared data may result in data inconsistency
17. Security – defense of the system against internal and external ttacks
18. ROM is Non-volatile memory
19. File management is the same concept of mamory management
20. A process is a running programm

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