Course #1: Operating system and System Programming

1. What are the types of distributed operating systems?

A. Zone based Operating system

B. Level based Operating system

C Network Operating system

D. All of the mentioned

2. Which of the following system software resides in main memory?

A. Text editor B. Linker C. Loader D. Compiler

3. Producer consumer problem can be solved using?

A. Event counters B. Semaphore

C Monitors

D. All of the above

4. What is bootstrapping?

A. A language interpret other language pro

B. A language compiling other langur

C. A language compile itself

D. All of the above

5. Which one of the following program is not belong to utility program

A. Spooler B. Editor

C. Debugger D. All of the above

6. Which command is used to bring the background process to foreground?

A. bg

B. fg

C. background

D. foreground

7. Which file system can be used to change certain kernel parameters at runtime using

sysctl command?

A. Ext3

C. Ext4

B. Sysfs

D. Procfs

8 . The permission -rwxr-r-represented in octal expression will be:

A. 777

B. 666

C. 744

D. 711

9. Process Id(Pld) of init process is:

A. 0

B. 1

C. 3232

D. None of the above

10. Which one of the following system call is used to return parent process

ID with in child process function?

A. waitpid

B. getpid()

C. getppid)

D. parenteid())

Course #2: Mobile Application Development

1. Under which of the following Android is licensed?

A. OSS

B. Sourceforge

C. Apache/MIT

D. None of the above

1, ...... is a matrix that maps the work of the project, as described in the WBS, to the people responsible for performing the work, as described in the OBS

A. Responsibility assessment matrix

B. Responsibility Index matrix

C Responsibility assignment matrix

D. Responsibility addition matrix

2 . What kind of estimation approach is Parkinson's Law.....

A. Expert Judgment

B. Estimation by Analogy

C. Adhoc Approach

D. Emperical approch

6. Delphi approach is also called …. group consensus technique.

A Consultative

B Non-Consultative

C. Fully Consultative

D. Partially Consultative

7. Expand SMART

C. Adhoc Approach D. Empirical Model

A. Specific, Measurable, Activity, Realistic, Time-framed

B. Specific, Measurable, Activity, Resource, Time-framed

C. Specific, Measurable, Assignable, Resource, Time-framed

D. Specific, Measurable, Assignable, Realistic. Time-framed

8. is a hierarchical and incremental decomposition of the project into phases, Deliverables and work packages

A. Task Integration Structure B. Bottom-up Integration Structure

C. Work Integration Structure D. Work Breakdown Structure

9. Expand DSDM

A. Development Systems Dynamic Method B. Database Systems Development Method

C. Dynamic Systems Development Method D. Development Systems Database Method

10.involves organizing and managing projects and programs as a portfolio of investments that contributes to the entire enterprise's success.

A. Program portfolio

B. Program Management Course

C. Project Management

D. Project portfolio

The statement you provided describes portfolio management. Portfolio management involves organizing and managing projects and programs as a portfolio of investments that contributes to the entire enterprise's success. A portfolio is a collection of projects and/or programmes used to structure and manage investments at an organisational or functional level to optimise strategic benefits or operational efficiency¹.

Therefore, the answer is A. Program portfolio.

1. The IT department is reporting that a company web server is receiving an abnormally high number of web page requests from different locations simultaneously

A. Nonrepudiation

B. Confidentiality

C. Availability

D. Integrity

2. In 2018, scammers send emails and took personal information of ticket-hungry fans saying that the email is from FIFA and fans have won lottery for world cup in Russia.

What type of threat/attack is this?

A. Eavesdropping

B. DOS

C Masquerading

E. None

D. Repudiation

3. Liya is applying access controls to ensure that employees in her company are not able to read files that are not directly related to their job functions. What goal of information security is Liya enforcing? A. Nonrepudiation

B. Confidentiality

C. Availability

D. Integrity

4. A type of virus that can take different form to itself and using a different key for each copy of the virus is known as

A. Public key virus

B. Polymorphic virus

C. Metamorphic virus

D. Macro virus

5. The property that certain records or transactions not to be attributable to any individual

A. Anonymity B. Authenticity

C. Assurance

D. Cryptography

E. None

6. The term "backdoor" is used to represent an entry point into a program that provides illegal access

A. True

B. False

7. A firewall passes or blocks traffic based upon

A. IP address

B. Port number

C. All of the above

D. None of the above

8 Which security measure allows to verify whether you have a permission to access the specific resources?

A. Authentication

B. Authorization

C. Nonrepudiation

D. Accountability

9. A process or a device that is designed to detect, prevent, or recover from a security

attack.

A. Security Attack

B. Security Mechanisms

C. Security Service

D. Threat

31. Here is the general syntax for method definition: accessModifierreturnTypesethodName(parametertist ){

Java statements

return returnValue;

}

What is true for the access Modifier?

A. It must always be private or public

B. It can be omitted, but if not omitted it must be private or public.

C. It can be omitted, but if not omitted there are several choices, including private and

public

D. The access modifier must agree with the type of the return value.

E All of the above

32, What is the output of the following Java code?

class FinalExam{

int num;

public FinalExam() {

num= 4;

}

void display() {

System.out.println(num);

}

class Finall extends FinalExam{

Int num=3;

public Finall() {

this(5);

num=num;

}

public Final1(int num) this.num=num\*num

}

public class Main{

public static void main(String[] args) {

Final1 f =new final();

f.display();

}

}

A. 4

B. 25

C. 12

D. 20

33. Which one of the following is important to implement dynamic Polymorphism?

64. In PHP, which function initiates a session?

A. start()

B. s\_start()

C. session\_start()

D. session\_str()

65. In php, which one of the following is a super global varible?

A. $\_GET

B. $\_POST

C. $\_SERVER

D. All of the above

66 One is not the goal of I/O software

A Buffering

B. Device independence

C. Uniform naming

D. Error handling

E. None of the above

67. Hardware device that maps physical address to logical address is

A. MMU

B. IRQ

C. DMA

D. Cache

E. Relocation Register

68. In terms of speed and storage utilization,

A. First fit algorithm is better

B. Best fit algorithm is better

C. Worst fit algorithm is better

D. All of the above

69. Assuming process execution time is known in advance, for which of the following algorithm(s)

can the maximum wait time for a given process be computed at the time the job is submitted?

A. Shortest job first

B. Shortest remaining time

C. Priority based

D. Round Robin

E. All of the above

70) One is not a problem caused by concurrency of processes

A. Race condition

B. Starvation

C. Deadlock

D. Mutual exclusion

E. None

71. Which of the following methods can be used to recover deadlock

A. Kill the process

B. Rollback

C. Non-preempt the resource

D. Lock the process

72. One deadlock prevention method says, "if a process must wait for a needed resource it drops all of its previously held resources and tries to acquire all resources gain." These ..tacks

A. Circular wait condition

B. No preemption conditions

C. Mutual exclusion condition

E. None of the above

D. Hold and wait condition

73. The data structure used in the standard implementation of Breadth First Search is

A. Stack B. Array

C. Linked List

D. Queue

74. The data structure used in the standard implementation of Depth First Search is

A. Stack

B. Array

C. Linked List

D. Queue

75. Recursion is a method in which the solution of a problem depends on …..

A. Larger instances of different problems

B. Larger instances of the same problem

C. Smaller instances of the same problem

D. Smaller instances of different problems

76. In recursion, the condition for which the function will stop calling itself is

A. Best case B. Worst case C. Base case D. There is no such condition.

77.If an optimal solution can be created for a problem by constructing optimal solutions for its subproblems , the problem possesses ........ property

A. Overlapping subproblems B. Optimal substructure C. Memoization D. Greedy

78. If a problem can be broken into subproblems that are reused several times, the problem possesses ...... property

A Overlapping subproblems B. Optimal substructure C. Memoization D. Greedy

79 If a problem can be solved by combining optimal solutions to non-overlapping problems,the strategy is called......

A. Dynamic programming B. Greedy C. Divide and conquer D. Recursion

80. Among the following which kind of algorithm is used in the Game tree to make decisions of win/Lose?

A. Depth First Search B. Breadth First Search Algorithm C. Heuristic Search Algorithm D. Min/Max Algorithm E. Greedy Search Algorithm

81. Agents' behavior can be best described by .....

A Perception sequence B. Agent function C. Sensors and Actuators D. Environment in which agent is performing

82. Which type of agent deals with happy and unhappy states?

A. Simple reflex agent B. Model based agent C. Utility based agert D. Learning agent.

83. What is the purpose of "Agent" in Artificial Intelligence?

A. Mapping of goal sequence to an action B. Work without the direct interference of the people C. Mapping of environment sequence to an action D. Mapping of precept sequence to an action

84. Which of the following is also called as exploratory learning?

A. Supervised learning B. Active learning C. Unsupervised learning D. Reinforcement learning E. None of the Above

85, Suppose the predicate F(x, y, t) is used to represent the statement that person x can fool person y at time t. which one of the staternents below expresses best the meaning of the formula for all x there is y there is t(not F(x, y, t))?

A. Everyone can fool some person at some time B. Everyone cannot fool some person all the time C. No one can fool some person at some time D. No one can fool everyone all the time

86. What one is the main challenge/s of NLP?

A. Handling Tokenization B. Handling Ambiguity of Sentences C. Handling POS-Tagging D. Handling Semantics of Sentences E. All of the mentioned

87. Based on the predefined policy of Network management, controlling access to the network is the task of

A. Fault Management B. Performance Management C. Security Management D. Configuration Management E. None

88. A Unix utility which used for checking and repairing file system inconsistencies.

A. init B. halt D. C. inittab. fsck

89. Which one of the following authentication procedures is bounded to user's body?

A. One-factor authentication B. Two-factor authentication C. Three-factor authentication D. Forth-factor authentication

90. A PC obtains its IP address from a DHCP server. If the PC is taken off the network for repair, what happens to the IP address configuration?

A. The configuration is permanent and nothing changes. B. The address lease is automatically renewed until the PC is returned. C. The address is returned to the pool for reuse when the lease expires D. The configuration is held by the server to be reissued when the PC is rem E. None of the above

91. Which command in Microsoft Windows will allow you to verify your IP address, sidner mask, default gateway, and MAC address?

A) Cipconfig B) Cipstatus C) Cipconfig /all D) Coping E) None of the above

92. A system that monitors traffic into and out of a network and automatically alerts personnel when suspicious traffic patterns occur, indicating a possible unauthorized intrusion attempt is called a (n)

A) IDS B) Firewall C) Router D) Anti-Virus Software E) None of the ab

93. You are the administrator of an active directory domain. A user complains that he cause of the problem? is unable to change his password. No other users have this issue. What is the most likely

A. Insufficient login credentials B. He is a member of the Administrators group

C .He is not a member of the domain

D.The property "User cannol change password" has been enabled when it was created

94.Which one of the following languages over alphabet (0,1) is described oy" sgular

expression (0+1)\*0(0+1)\*0(0+1)\*

A.Strings with substring 00

B. Strings with at least two O's

C. Strings with at most two 0's

D. Strings with postfix 1.

95.Transition function in FSA maps which pair?

A.QandΣto2

C.Eand Σto Q

B.Q andQ1oΣ

D.Q and Σ to Q

96.A grammar has the following productions:

A→aB|bA|bBa

B→bB|cA|b

Which one of the following strings is in the language generated by the grammar?

A.abbcabbcbbbcbbaca

C.acbcbbbbcaba

B. bcbbbcabbcbaa

D.bbbbcbbbbcab

97.When we can say two grammars are cquivalent?

14/29 H9bcbA

A.When the languages represented by both grammars are the same

999

B.When the language derived from one of the grammars become the subset of the other

C. When the alphabets of the two grammars are the same

D. When a single string is member of the language represented by both grammars

98.IfLI and L2 arc two regular languages,which one of the following is true

A. LiU L2 is a regular language only if empty string is not a member

B. Ly\* is thé same with L2\* and are both regular languages

C.LiL2 is also a regular language

D.LiR is a regular language and is equivalent to Li

111002500DA

99.Let G = {N, T, P, S} be a grammar where:

A.111011110S

C.0000111001AS

111

N={S,A},T={0,1},S={S} and P= {S→11S|0A|1A, A→011|0S}.Which one of the following is a sentential form?

B.11111101

D.00001110A

100.Which one of the following properties of a graph represents the derivation stepsperformed to gencrate a valid string?

A.Root of the graph

B. Degree of the vertex

QA 00S 000A 00009Sllaaaa

C. Path of a vertex from the root

115112A.1110S 1

D.Parent vertex