is caused by allocates and deallocates of memory in varying s

(A) Stack overflow (B) Memory leak (C) Dynamic memory a

19. The ..... cache replacement policy evicts the cache line with the

(A) LRU (B) FIFO (C) LIFO (D) MRU

20. ..... makes different memory technologies look like a contiguous

(A) Virtual memory (B) Contiguous allocation (C) Paging

21. In order to write a machine learning program to solve handwritt

(A) Computer (B) Rules (C) Data (D) Patterns

22. ..... is the type of learning where the training data includes a

(A) Supervised learning (B) Unsupervised learning (C) Semi-supervised learning (D) Reinforce

23. ..... subset of machine learning in which artificial neural networks adapt and learn from data.

(A) Artificial Intelligence (B) Deep learning (C) CNN (D) Expert System

24. In a robot driving learning problem we use a sequence of images and steering commands recorded while observing human driver to perform .....

(A) task (B) performance measure (C) classification (D) training experiences

25. ..... tries to handle the semantic gab between what we see and what computer sees.

(A) Image Classification (B) Training on images (C) Testing on unseen images (D) Regression

26. ..... receives some type of control signal and triggers a physical effect.

(A) Sensors (B) Things (C) Actuators (D) All the previous mentioned

27. ..... performs computing on the local area network (LAN) level of the network architecture.

(A) Cloud Computing (B) Fog Computing (C) Edge Computing (D) Micro Computing

28. ..... is an internet phase that extends the internet to include video and social media

(A) Digitize access (B) Digitize interactions (C) Digitize business (D) Digitize the world

29. As more and more devices are added to IoT networks, the data generated by these systems becomes overwhelm known as .....

(A) Data Analytics (B) Data Mining (C) Big Data (D) Database

30. ..... Is a type of sensor that measures velocity (speed of motion).

(A) Barometer (B) Potentiometer (C) Viscometer (D) Accelerometer

31. ..... consist of an input layer and an output layer that are fully connected.

(A) Single-Layer Feedforward Networks (B) Multi-Layer Feedforward Networks (C) Perceptrons (D Networks

32. In brain, ... has a set of neurons (simple cells) that are sensitive to particular simple visual forms lik corners

(A) Visual Cortex (B) AIT (C) V4 (D) V1

33. In a typical neural network, each connection link has ....., multiplies the signal transmitted.

(A) activation function (B) weight (C) neurons (D) processing unit

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Medical Informatics Program

Embedded Systems
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Final Exam (60 Points) - Model (1)

Question 1 (20 Points): Determine whether the statement is true

1. Cache memories present hard to predict variability in timing. T
2. Stack overflow occurs when a program allocates memory that is never freed. F
3. The use of mutex lock increases the risk of deadlock.
4. PWM is a technique for delivering a variable amount of power efficiently to external hardware devices
5. A signal is a set of sampled measurements of the physical world. T
6. Von Neuman Architecture separates memories for code and data. f
7. A tilt sensor allows for detecting orientation or inclination. T
8. A large jiffy results in more task switching that can degrade the performance. T
9. Speculative execution is a solution to data hazard in instruction pipelining. f
10. Sampling interval is the number of samples per second. F
11. The sigmoid function is computationally efficient, allows the network to converge very quickly. f
12. Clustering finds a group structure in the data. T
13. In image classification, the testing images are used to estimate the model parameters. T
14. Discriminative models directly construct the model posterior probability. T
15. In Backpropagation, activation results propagate from input to output layer. f
16. The goal of ML is to learn a mapping function from input to output. T
17. In deep learning, features are extracted manually and require domain knowledge of the data that we a
18. IoT require human-to-human or human-to-computer interaction. f
19. Neural networks can solve nonlinearly separable problems. f
20. In CNN, hidden units within a feature map connected to all positions of the input image.