ARTIFICIAL INTELLIGENCE PROFESSIONAL CERTIFICATE

Sample Exam (V092021)

1. Tensorflow Operations and Computation Graph are not - run in the Session

A. True
B. False

2. What is in the category of artificial intelligence? (Multiple choice)

A. Action
B. Perception
C. Cognition
D. None of the above

3. Traffic agent can achieve () Hour full time/Global traffic awareness?

A. 7×24
B. 5×24
C. 5×12
D. 7×12

4. The perceptron can be displayed in space as?

A. Line
B. Flat
C. Hyperplane
D. Point

5. In random forest, what strategy is used to determine the outcome of the final ensemble model? (Multiple choice)

A. Cumulative system
B. Find the average
C. Voting system
D. Cumulative system

6. What are the scenarios or industries that are suitable for using Python? (Multiple Choice)

A. Artlfic1al intelligence
B. web development
C. Game development
D Hardware development

7. In a convolutional neural network, different layers have different functions. Which of the following layers can play the role of dimensionality reduction? (Multiple choice)

A. Input layer
B. Fully connected layer
C. Convolutional layer
D. Pooling layer

8. Vector is a number.

A. True
B. False

9. Among the following properties TensorFlow2.0 Does not support creation tensor. The method is?

A. Zeros
B. Fill
C. Create
D. Constant

10. What is the English abbreviation for AI?

A. Automatic Intelligence
B. Artificial Intelligence
C. Automatic Information
D. Artificial Information

11. Which of the following are included in the application scenarios of TensorFlow? (Multiple choice)

A. Speech recognition
B. Face recognition
C. Image style changes
D. Autopilot

12. In neural networks, which of the following methods are used to update the parameters when training the network to minimize the loss function?

A. Forward propagation algorithm
B. Pooling calculation
C. Convolution calculation
D. Backpropagation algorithm

13. On the premise of ensuring data privacy and security, federated learning utilizes different data sources to cooperatively train models to improve breakthroughs in data bottlenecks.

A. True
B. False

14. What are the implementation modes of TensorFlow? (Multiple choice)

A. Stand-alone mode
B. D1stnbuted mode
C. Reverse mode
D. Forward mode

15. By the end of 2019, Tensorflow versions released to the market are:

A. 1
B. 3
C. 2
D. 0.1

16. In TensorFlow 2.0, the way to view tensor dimensions is in:

A. dimens
B. dtype
C. ndim
D. device

17. On-Device Execution, that is, the entire image is offloaded and executed, and the computing power of the Yiteng chip can be fully utilized, which can greatly reduce the interaction overhead, thereby increasing the accelerator occupancy rate.

On-Device, the following description is wrong:

A. MindSpore Realize decentralized autonomy through adaptive graph optimization driven by gradient data A11 Reduce, Gradient aggregation is in step, and calculation and communication are fully streamlined
B. Challenges of model execution under super chip computing power: Memory wall problems, high interaction overhead, and difficulty in data supply. Partly in Host Executed, partly in Device Execution, interaction overhead is even much greater than execution overhead, resulting in low accelerator occupancy
C. MindSpore Through the chip-oriented depth map optimization technology, the synchronization wait is less, and the "data computing communication" is maximized. The parallelism of "trust", compared with training performance Host Side view scheduling method is flat
D. The challenge of distributed gradient aggregation under super chip computing power:ReslNet50 Single iteration 20ms Time will be generated The synchronization overhead of heart control and the communication overhead of frequent synchronization. Traditional methods require 3 Synchronization completed A11 Reduce, Data-driven method autonomy A11 Reduce, No control overhead

18. Who is known as the Father of AI?

A. Fisher Ada
B. Alan Turing
C. John McCarthy
D. Allen Newell

19. PyTorch all existing versions support Python2 with Python3?

A. True
B. False

20. It is known that the total parameter of a certain layer of the fully connected neural network is 330. The number of neurons in the previous layer and this layer may be? (Multiple choice)

A. 32 with 10
B. 10 with 33
C. 33 with 10
D. 9 with 33

21. What model is not a cyclic neural network?

A. RNN
B. LSTM
C. GBOT
D. GRU

22. The current technology application directions of artificial intelligence mainly include? (Multiple choice)

A. Natural language processing
B. Control System
C. Computer vision
D. Speech Recognition

23. Which of the following are the characteristics of TensorFlow? (Multiple choice)
A. Open source
B. Convenience
C. Mature
D. Flexible

24. Which of the following statements about the number of rows and columns in a matrix is correct?

A. The number of rows 1s greater than the number of columns
B. The number of rows 1s equal to the number of columns
C. The number of rows is less than the number of columns
D. The number of rows has no relationship with the number of columns

25 The Feedforward neural network is a simple neural network and is currently one of the most widely used and fastest growing artificial neural networks where each neuron is arranged hierarchically. The following statement about Feedforward neural networks is correct:

A. Neurons with computing power are connected to the upper and lower layers
B. Its input node has computing power
C. Connecting neurons in the same layer
D. Information only along-Pass through

26. In the Atlas 300 AI Accelerator Card (model 3000), Which command should be used if the accelerator card driver is installed successfully?

A. npu-sim info
B. npu info
C. atlas-driver info
D. atlas info

27. In the face of industry research, comprehensive AI scenarios and the huge gap between applications, the MindSpore AI framework is adaptable to a range of scenarios and provides on-demand cooperation between them. Its "AI Algorithm As Code" design concept enables developers to bridge the gap between applications and develop advanced AI applications with ease and train their models faster to help AI inclusion, but does not include which of the following aspects?

A. New ways of collaboration
B. New programming language
C. New programming paradigm
D. New execution mode

28. X. Y are random variables. C is a constant. Which of the following description about the nature of the mathematical expectation is incorrect?

A. E(C) = CA. E(C) = C
B. E(X+Y) = E(X)+E{Y)
C. E(CX) = CE(X)
D. E(XY) = E(X)E{Y)

29. Which of the following schools does the neural network study belong to?

A. Symbolism
B. Connectionism
C. Behaviorism
D. None of the above

30. Artificial Intelligence is the research and development of theories, methods and application systems used to simulate, extend and expand human intelligence of a new technological science.

A. True
B. False

31. Which method is not supported in TensorFlow to define variables?

A. Random number
B. Constant
C. Calculated from the initial values of other variables
D. Null

32. Deflated AI The logical architecture of the processor does not include which of the following options?

A. DVPP
B. GPU
C. AI Calculation engine
D. Chip system control CPU

33. There are many commercial applications for machine learning services. What are the main business scenarios covered? (Multiple choice)

A. Financial product recommendation
B. Predictive maintenance
C. Telecom customer retention
D. Retailer grouping

34. In the process of training the neural network, we use the gradient descent method to continuously update which value, which makes the loss Function minimization?

A. Number of samples
B. Eigenvalues
C. Hyperparameter
D. Parameter

35. In the process of deep learning model training, what are the common optimizers?

A. Adam
B. Adagrad
C. SGD
D. Momentum

36. Python tuples are identified by "()" and internal elements are separated by ":".

A. True
B. False

37. Only matrix A and matrix B have the same number of rows and columns. A and B can be added.

A. True
B. False

38. Which of the following can improve the computational efficiency of the neural network model? (Multiple choice)

A. TPU
B. GPU
C. FPGA
D. Large-scale distributed cluster

39. " print" in Python 3 must be used with "()"

A. True
B. False

40. What are the mainstream deep learning open source tools? (Multiple choice)

A. TensorFlow
B. Caffe
C. Torch
D. Theano
E. Scikit..Jeam

ANSWERS

1. B
2. A, B, C
3. A
4. C
5. B, C
6. A, B, C
7. B, C, D
8. B
9. C
10. B
11. A, B, C, D
12. D
13. A
14. A, B
15. A, C, D
16. C
17. C
18. C
19. B
20. B, C
21. C
22. A, C, D
23. A, B, C, D
24. D
25. D
26. A
27. B
28. D
29. B
30. A
31. D
32. B
33. A, B, C, D
34. D
35. A, B, C, D
36. B
37. A
38. A, B, C, D
39. A
40. A, B, C, D