

1. TensorFlow Operations and Computation Graph are not run in the Session
  - a. True
  - b. False**
  
2. What are the categories of artificial intelligence?
  - a. Action**
  - b. Perception**
  - c. Cognition**
  - d. None of the above
  
3. Traffic agent can achieve \_\_\_\_\_ hour full time/global traffic awareness?
  - a. 7X24**
  - b. 5X24
  - c. 5X12
  - d. 7X12
  
4. The perceptron can be displayed in space as \_\_\_\_\_.
  - a. line
  - b. flat
  - c. hyperplane**
  - d. point
  
5. In Random Forest algorithm, what strategy is used to determine the outcome of the ensemble model?
  - a. Cumulative system
  - b. Find the average**
  - c. Voting system**
  - d. Find the max
  
6. What are the scenarios or industries for which Python is suitable?
  - a. Artificial 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?
  - a. Input Layer
  - b. Fully Connected Layer**
  - c. Convolutional Layer**
  - d. Pooling Layer**
  
8. Vector is a number.
  - a. True
  - b. False**

9. Which of the following tensor creation method is not supported in TensorFlow2.0?
- a. zeros
  - b. fill
  - c. **create**
  - d. constant
10. What is AI stands for?
- a. Automatic Intelligence
  - b. **Artificial Intelligence**
  - c. Automatic Information
  - d. Artificial Information
11. Which of the following are TensorFlow application scenarios?
- a. **Speech Recognition**
  - b. **Face Recognition**
  - c. **Image Style Changes**
  - d. **Autopilot**
12. In neural networks, which of the following methods is 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. **Distributed mode**
  - c. Reverse mode
  - d. Forward mode
15. By the end of the year 2019, the released TensorFlow versions are?
- a. **1**
  - b. 3
  - c. **2**
  - d. **0.1**
16. In TensorFlow 2.0, the way to view tensor dimensions is?
- a. **dims**
  - b. dtype

- c. **ndim**
- d. device

17. Which module of HUAWEI HiAI is supported by Huawei's chip?

- a. HiAI Engine
- b. **HiAI Foundation**
- c. HiAI Framework
- d. HiAI Service

18. All of the existing versions of PyTorch support Python 2 and Python 3.

- a. True
- b. **False**

19. 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?

- a. 32 with 10
- b. **10 with 33**
- c. **33 with 10**
- d. 9 with 33

20. What model is not a cyclic neural network?

- a. RNN
- b. LSTM
- c. **GBOT**
- d. GRU

21. The current technology application directions of artificial intelligence mainly include

- a. **Natural language processing**
- b. Control System
- c. **Computer vision**
- d. **Speech Recognition**

22. Which of the following are the characteristics of TensorFlow? (Multiple choice)

- a. **Open source**
- b. **Convenience**
- c. **Mature**
- d. **Flexible**

23. Which of the following description of the number of rows and columns of the matrix is correct?

- a. The number of rows is greater than the number of columns
- b. The number of rows is 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.**

24. Feedforward neural network is a simple neural network, each neuron is arranged hierarchically, it is currently one of the most widely used and fastest growing artificial neural networks. Which of 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. Neurons in the same layer are connected
  - d. **Information only along-pass through**
25. To view Atlas300 (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
26. MindSpore is bridging the huge gap between industry research of AI technology and application scenarios in the following ways except:
- a. New ways of collaboration
  - b. **New programming language**
  - c. New programming paradigm
  - d. New execution mode
27. X, Y are random variables. C is a constant. Which of the following descriptions 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.  **$E(XY) = E(X)E(Y)$**
28. Which of the following schools does the neural network study belong to?
- a. Symbolism
  - b. **Connectionism**
  - c. Behaviourism
  - d. None of the above
29. 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
30. 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**

31. Which of the following logical architectures of the processor is not included in deflated AI?
- DVPP
  - GPU**
  - AI Calculation engine
  - Chip system control CPU
32. There are many commercial applications for machine learning services. What are the main business scenarios covered? (Multiple Choice)
- Financial product recommendation**
  - Predictive maintenance**
  - Telecom customer retention**
  - Retailer grouping**
33. 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?
- Number of samples
  - Eigenvalues
  - Hyperparameter
  - Parameter**
34. In the process of deep learning model training, what are the common optimizers?
- Adam**
  - Adagrad**
  - SGD**
  - Momentum**
35. Python tuples are identified by "()" and internal elements are separated by ":".
- True
  - False**
36. Matrix A and matrix B can be added only when they have the same number of rows and columns.
- True**
  - False
37. Which of the following can improve the computational efficiency of the neural network model? (Multiple choice)
- TPU**
  - GPU**
  - FPGA**
  - Large-scale distributed cluster**
38. "print" in Python 3 must be used with "()".
- True**

b. False

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

- a. **TensorFlow**
- b. **Caffe**
- c. **Torch**
- d. **Theano**
- e. Scikit..Jeam

40. TensorFlow It is one of the most popular deep learning frameworks.

- a. **TRUE**
- b. FALSE

41. Which of the following is the computing model of TensorFlow?

- a. **Calculation chart**
- b. Tensor
- c. Conversation
- d. Variable

42. In neural networks, weights are often shared. Which of the following neural networks will share weights?

- a. Sensor
- b. **Convolutional Neural Network**
- c. Fully connected neural network
- d. **Recurrent neural network**

43. Deep learning makes it easy to derive simple mathematical functions from a large amount of high-dimensional data to describe complex decision interfaces.

- a. True
- b. **False**

44. Traditional machine learning and deep learning are the core technologies of artificial intelligence. There is a slight difference in the engineering process. Which of the following steps can be done automatically in deep learning?

- a. Model evaluation
- b. **Feature engineering**
- c. Data cleaning
- d. Model building

45. The Python dictionary is identified by "{}", and the internal data consists of the key and its corresponding value.

- a. **True**
- b. False

46. Convolutional neural networks are more suitable for image recognition problems than cyclic neural networks.
- a. **True**
  - b. False
47. Where is the main foothold of symbolism?
- a. The foothold is in neuron networks and deep learning.
  - b. **The foothold is reasoning, symbolic reasoning and machine reasoning.**
  - c. The foothold is perception and action.
  - d. The foothold is behaviour control, adaptive and evolutionary computing.
48. When training the network, we often encounter many problems. For the problem of gradient vanishing, we can alleviate the problem by choosing which of the following activation functions?
- a. Softsign function
  - b. **Relu function**
  - c. tanh function
  - d. Sigmoid function
49. During application development, which of the following operations is not a typical network definition?
- a. Network definition
  - b. Network execution
  - c. **Knowledge distillation**
  - d. Weight initialization
50. Which of the following description of the validation set is wrong?
- a. **The verification set can coincide with the test set.**
  - b. The test set can coincide with the training set
  - c. The subset used to pick hyperparameters is called a validation set
  - d. Typically 80% of the training data is used for training and 20% is used for verification.
51. Which of the following functions can numerically stabilize overflow and underflow?
- a. Softminus function
  - b. Softplus function
  - c. **Softmax function**
  - d. Softmin function
52. The loss function of logistic regression is the cross-entropy loss function.
- a. **TRUE**
  - b. FALSE
53. What are the common clustering algorithms?

- a. **Density clustering**
  - b. **Hierarchical clustering**
  - c. **Spectral clustering**
  - d. **Kmeans**
54. Python script execution mode includes interactive mode and script mode
- a. **True**
  - b. False
55. The loss function reflects the error between the target output and actual output of the neural network. The commonly used loss function in deep learning is:
- a. Exponential loss function
  - b. **Mean square loss function**
  - c. Log loss function
  - d. Hinge Loss function
56. The model composed of machine learning algorithms cannot represent the true data distribution function on a theoretical level. Just approach it.
- a. **TRUE**
  - b. FALSE
57. What models support HUAWEI HiAI?
- a. **P30**
  - b. **Mate 20**
  - c. **glory V20**
  - d. iPhone10
58. The meaning of artificial intelligence was first proposed by a scientist in 1950, and at the same time a test model of machine intelligence was proposed. Who is this scientist?
- a. Minsky
  - b. Zade
  - c. **Turing**
  - d. Von Neumann
59. Which of the following services belong to Huawei EI Service family?
- a. **Dialogue robot**
  - b. **EI Basic services**
  - c. **Natural language processing**
  - d. **EI Big data service**
60. Which of the following descriptions of the deep feedforward network is correct?
- a. **Deep feedforward network is a kind of neural network.**
  - b. The deep feedforward network has only one hidden layer.
  - c. The units on the hidden layer of the deep feedforward network are countless.
  - d. Deep feedforward network is used to deal with linear problems.
61. What statement is incorrect about the relationship between neural networks and deep learning?



- a. The concept of deep learning stems from the study of artificial neural networks.
  - b. A neural network algorithm with multiple hidden layers is a deep learning algorithm
  - c. **Single layer neural networks are also a type of deep learning**
  - d. Convolutional neural networks are a type of deep learning.
62. What is the performance of artificial intelligence in the stage of perceptual intelligence?
- a. Machines begin to understand, think and make decisions like humans
  - b. Machines begin to calculate and transmit information just like humans
  - c. **The machine starts to understand and understand, make judgments, and take some simple actions**
63. In which year was the first introduction of "artificial intelligence"?
- a. 1946
  - b. 1960
  - c. 1916
  - d. **1956**
64. Which of the following is true about unsupervised learning?
- a. **Unsupervised algorithm only processes "features" and does not process "tags"**
  - b. Dimensionality reduction algorithm is not unsupervised learning
  - c. K-means algorithm and SVM algorithm belong to unsupervised learning
  - d. None of the above
65. Which of the following characteristics belong to TensorFlow2.0?
- a. **Introduce Keras interface**
  - b. Support static image mechanism
  - c. **Support more platforms and more languages**
  - d. **Continue to be compatible Tensorflow1.x Related modules**
66. The training error will continue to decrease as the model complexity increases.
- a. **TRUE**
  - b. FALSE
67. What are the advantages of HiAI mobile computing platforms?
- a. **Quick source code**
  - b. **Diverse tool chain**
  - c. **Complete documentation**
  - d. **plentiful API**
68. Which of the following statement about the matrix is incorrect?
- a. The arbitrary matrix is multiplied by the unit matrix and will not change.
  - b. The transpose of the symmetric matrix A is also A itself.
  - c. The transpose of the orthogonal matrix A is equal to the inverse of A .
  - d. **There is no inverse matrix for the diagonal matrix.**
69. In the environment preparation for invoking HUAWEI CLOUD services, which of the following does not require confirmation of installation?

- a. requests
- b. setuptools
- c. websocket-client
- d. Jieba**

70. In the classic convolutional neural network model, what layer does the Softmax function follow?
- a. Convolutional layer
  - b. Pooling layer
  - c. Fully connected layer**
  - d. All of the above
71. The combination of ModelArts services and \_\_\_\_\_ can easily deploy the model to "end"?
- a. OBS
  - b. OCR
  - c. ECS
  - d. HiLens**
72. With a lot of sales data but no labels, the company wants to identify VIP customer, which of the following models is suitable?
- a. Logistic regression
  - b. SVM
  - c. K-Means**
  - d. Hierarchical clustering**
73. The Naive Bayes algorithm does not require independent and identical distribution of sample features.
- a. TRUE
  - b. FALSE**
74. Which of the following statements about supervised learning is correct?
- a. Decision tree is a supervised learning**
  - b. Supervised learning cannot use cross-validation for training
  - c. Supervised learning is a rule-based algorithm
  - d. Supervised learning can be trained without labels
75. The commonly used functions for mathematical operations in Python are basically in the math module and the cmath module.
- a. True**
  - b. False
76. The constituent elements of the Python identifier include: numbers, letters, and underscores.
- a. True**
  - b. False
77. Jobs that are repetitive and require weak social skills are the easiest to be replaced by AI.

- a. TRUE
- b. FALSE

78. What are the commonly used loss functions? (Multiple choice)

- a. Mean variance**
- b. Sigmoid cross entropy**
- c. Soft max cross entropy**
- d. Sparse cross entropy**
- e. Weighted Sigmoid Cross Entropy**

79. If the deep learning neural network has the problem of gradient vanishing or gradient explosion, our common solutions are

- a. Gradient shear**
- b. Random undersampling
- c. use Relu Activation function**
- d. Regularization**

80. In deep learning tasks, when encountering data imbalance problems, which of the following methods can we use to solve the problem?

- a. batch deletion
- b. Random oversampling**
- c. Synthetic sampling**
- d. Random undersampling**

81. In deep learning, if the neural network has a large number of layers, the problem of gradient disappearance is more likely to occur. Strictly speaking, in which of the following links does the sample disappearance problem occur?

- a. Backpropagation update parameters**
- b. Forward the dream and update
- c. Backpropagation calculation result
- d. Forward calculation results

82. The number or matrix is stored in the tensor

- a. True
- b. False

83. For bagging in ensemble learning, the relationship between each base learner is?

- a. Additive relationship
- b. No relationship**
- c. The latter model must be built on top of the previous model
- d. Independent**

84. Generating a confrontation network (GAN) is like a game system. The generator generates fake samples, and the discriminator judges whether it is true or false. Our ideal result is?

- a. The generator produces roughly the same samples

- b. The discriminator efficiently distinguishes the true and false samples generated by the generator
  - c. The discriminator cannot distinguish the true and false samples generated by the generator**
  - d. The generator produces different samples
85. What quotation marks can the Python language use? (Multiple Choice)
- a. Single quotes**
  - b. Double quotes**
  - c. Three quotes**
  - d. Four quotes
86. How does MindSpore handle the challenge of achieving efficient distributed training for ultra-large-scale models
- a. Automatic parallel**
  - b. Serial
  - c. Manual parallel
87. Reducing the gap between the training error and the test error will result in over-fitting. How to prevent over-fitting? (Multiple Choice)
- a. Cross validation**
  - b. Integration method**
  - c. Increase regularization**
  - d. Feature Engineering**
88. Which of the following are the characteristics of the Python language? (Multiple choice)
- a. Explanatory**
  - b. Process oriented
  - c. Object-oriented**
  - e. Dynamic data type**
89. Which of the following functions is not supported by PyTorch?
- a. Inline keras**
  - b. Support dynamic graph
  - c. Automatic derivative
  - d. GPU accelerate
90. The optimizer is an important part of training neural networks. Which of the following is not the purpose of using the optimiser?
- a. Speed up algorithm convergence
  - b. Reduce the difficulty of manual parameter setting
  - c. Avoid overfitting**
  - d. Avoid local extremes
91. What are the service categories included in Huawei Cloud EI Enterprise Intelligence? (Multiple Choice)
- a. EI visual cognition**
  - b. EI online games

- c. **El speech semantics**
- d. **El industry scene**

92. Computer vision is the study of how to make computers "see".
- a. **TRUE**
  - b. FALSE
93. Which of the following descriptions of the normal distribution is wrong?
- a. In natural phenomena and social phenomena, many random variables obey or approximate a normal distribution.
  - b. The normal distribution takes the maximum value at the mean
  - c. **The larger the standard deviation the steeper the normal distribution curve**
  - d. The larger the standard deviation, the slower the normal distribution curve.
94. Which of the following descriptions about Python tuple is correct? (Multiple choice)
- a. **The difference between a list and a tuple is that the elements of the tuple cannot be duplicate.**
  - b. **The list uses square brackets and the tuple uses parentheses**
  - c. **Tuple creation is very simple, just add elements in parentheses and separate them with commas**
  - d. **When a tuple contains only one element, you need to add a comma after the element**
95. The data type used in TensorFlow is?
- a. Scalar
  - b. Vector
  - c. **Tensor**
  - d. Matrix
96. There are many types of neural networks in deep learning. The following neural network information is one-way propagation:
- a. LSTM
  - b. **Convolutional Neural Network**
  - c. Recurrent neural network
  - d. GRU
97. Which of the following is not included in keras.metrics of TensorFlow 2.0?
- a. Accuracy
  - b. Recall
  - c. **Sum**
  - d. Mean
98. The built-in optimizers in the keras module of TensorFlow include:
- a. **Adam**
  - b. **SGD**
  - c. **Adaboost**

**d. Adadelta**

99. The full scenarios of Huawei AI include public cloud, private cloud, various edge computing, IoT industry terminals, and consumer terminals and other end, edge, and cloud deployment environments.
- a. TRUE**
  - b. FALSE
100. Voice recognition refers to the recognition of audio data as text data.
- a. TRUE**
  - b. FALSE
101. The correlation coefficient, also known as the linear correlation coefficient, is used to measure the linear relationship between two variables, which is a real number greater than zero
- a. True
  - b. False**
102. In polynomial regression, there is a square term in the formula of the model, so it is not linear.
- a. TRUE
  - b. FALSE**
103. The test error will keep getting smaller as the complexity of the model increases.
- a. TRUE
  - b. FALSE**
104. GAN is a deep learning model and one of the most promising methods for unsupervised learning in complex situation in recent years.
- a. True**
  - b. False
105. The number of rows and columns of the three matrices A , B and C is 3 rows X 2 columns, 2 rowsX3 columns and 3 rows X 3 columns respectively. Which of the following operations is meaningful?
- a. AC
  - b. BC**
  - c. A+B
  - d. AB-BC
106. Which of the following about the gradient descent is incorrect?
- a. Random gradient descent is a commonly used one in gradient descent.
  - b. Gradient descent includes random gradient descent and batch gradient descent.
  - c. The gradient descent algorithm is fast and reliable**
  - d. Random gradient descent is one of the commonly used optimization algorithms in deep learning algorithms.
107. What are the commonly used activation functions? (Multiple Choice)

- a. sigmoid
- b. tanh
- c. relu
- d. danish

108. Python is a fully object-oriented language. Which of the following options belong to the Python object? (Multiple Choice)

- a. Function
- b. Module
- c. Number
- d. Character string

109. The label predicted by the regression algorithm is?

- a. Self-deformation
- b. Discrete
- c. Strain type
- d. Continuous

110. What operating systems support Python? (Multiple Choice)

- a. DOS
- b. Linux
- c. Mac OS
- d. Windows

111. The face detection service will report an error when there is no face in the test image.

- a. TRUE
- b. FALSE

112. HUAWEI HiAI Engine can easily integrate multiple AI abilities and Apps together.

- a. TRUE
- b. FALSE

113. Which of the following does not belong to automatic hyperparameter optimization algorithm?

- a. Grid search
- b. Random gradient descent
- c. Random search
- d. Model-based hyper parameter optimization

114. After the data has completed the feature engineering operation, in the process of constructing the model, which of the following options is not a step in the decision tree construction process?

- a. Pruning
- b. Feature selection
- c. Data cleaning

- d. Decision tree generation
115. What factor does not promote the development of artificial intelligence?
- a. Big data
  - b. Computing ability
  - c. Algorithm theory
  - d. Block chain**
116. The following are the description of the distribution function, distribution law and density function of random variables. Which of the following is incorrect?
- a. Distribution law can only describe the value rule of discrete random variables
  - b. The density function can only describe the value rule of continuous random variables
  - c. Discrete random variables have no distribution function**
  - d. Distribution function describes the value rule of random variables
117. In machine learning, what is the input that the model needs to train itself and predict the unknown?
- a. Manual procedure
  - b. Neural Networks
  - c. Training algorithm
  - d. historical data**
118. The pooling layer in the convolutional neural network can reduce the dimension of the lower layer input. Commonly used pooling layers are:
- a. Minimum strata
  - b. Product pooling layer
  - c. Maximum pooling layer**
  - d. Average pooling layer**
119. What are the Python language design philosophy? (Multiple Choice)
- a. Beautiful**
  - b. Expensive
  - c. Explicit**
  - d. Simple**
120. Which of the followings are not belong to supervised learning category?
- a. Logistic regression
  - b. Support vector machine
  - c. Decision tree
  - d. Principal component analysis**
121. In the binary classification process, we can set any category as a positive example.
- a. TRUE**
  - b. FALSE
122. Which of the following does not belong to long-term memory LSTM (long Short Term Memory) network architecture?
- a. Memory door**



- b. Forget door
  - c. Input door
  - d. Output door
123. In May 1997, in the famous "Human-Machine Wars" final, computer defeated Kasparov, the world chess king, with a total score of 3.5 to 2.5. What is this computer called?
- a. Dark blue**
  - b. Dark green
  - c. Ponder
  - d. Blue sky
124. The continue statement in the Python language is used to jump out of the current loop and then continue to execute the next loop.
- a. True**
  - b. False
125. Huawei Cloud EI builds enterprise intelligence services based on three-tier services. Which of the following options does not belong to Layer 3 services?
- a. Basic platform services
  - b. General domain services
  - c. Industry sector services
  - d. Integration services**
126. Which of the following options is not central to linear algebra?
- a. Probability theory**
  - b. Linear transformation
  - c. Matrix theory
  - d. Vector space
127. In supervised learning, "Those who are near red are red and those who are near black are black" is used to describe which of the following models?
- a. K-Means
  - b. SVM
  - c. KNN**
  - d. Neural Networks
128. There are a lot of data generated during the training of the neural network. What mechanism does TensorFlow use to avoid excessive input data?
- a. Client
  - b. feed
  - c. placeholder**
  - d. fetch
129. Which of the following methods in TensorFlow 2.0 can be used for tensor merging?
- a. join
  - b. concat**

- c. split
- d. unstack

130. Which of the following options belong to Tensorflow concept? (Multiple Choice)
- a. **Tensor**
  - b. **Variables**
  - c. **Placeholder**
  - d. **Operation**
  - e. **Conversation**
131. Python authors deliberately design very restrictive grammars that make bad programming habits (such as the next line of if statement not indented to the right) not be compiled.
- a. True
  - b. False
132. Which of the following descriptions about the number of rows and columns of a determinant is correct?
- a. The number of rows is greater than the number of columns
  - b. **The number of rows is 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
133. "From the labelled historical data, we can predict that the retail sales of the next quarter will be 20-30 thousands or 30-40 thousands". What is the problem type?
- a. Regression problem
  - b. Rule problem
  - c. **Classification problem**
  - d. Clustering problem
134. HUAWEI CLOUD ModelArts is a one-stop development platform for AI. Which of the following functions can ModelArts support?
- a. **Data governance**
  - b. **AI market**
  - c. **Visual workflow**
  - d. **Automatic learning**
135. The main application of the Atlas 200 DK Yiteng 310 chip is?
- a. **Model reasoning**
  - b. Build model
  - c. Training model
136. What are the advantages of Python? (Multiple choice)
- a. **Simple**
  - b. **Free**
  - c. **High-level language**

**d. Rich library**

137. According to its development process, what are the three generation of robot?

- a. Teaching Reproduction Robot**
- b. Robot with sensation**
- c. Robots that will think
- d. Intelligent robot**

138. For a matrix as shown in the figure below, what is the value of the determinant A?

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

- a. 24
- b. 18
- c. -24
- d. 0**

139. Which of the following descriptions about Python program are correct? (Multiple choice)

- a. The program consists of modules**
- b. Module contains statements**
- c. Statement contains an expression**
- d. Expressions create and process objects**

140. Which of the following is not MindSpore common Operation?

- a. signal**
- b. math
- c. nn
- d. array

141. TensorFlow is Google's first generation of proprietary machine learning systems

- a. True
- b. False**

142. What are the core concepts in TensorFlow? (Multiple Choice)

- a. Gridding
- b. Calculation Chart**
- c. Dot Product
- d. Tensor**

143. According to the American Society of Automotive Engineers (SAE), which of the following levels is the automatic driving divided?

- a. L1~L4

- b. L1~L5
- c. L0~L4
- d. L0~L5**

144. The main computing resources included in the Da Vinci architecture computing unit are?

- a. Vector calculation unit**
- b. Scalar Computing Unit**
- c. Tensor computing unit
- d. Matrix calculation unit**

145. Which of the following is not a way for the TensorFlow program to read data?

- a. Preload data
- b. Feeding data
- c. Read from the file
- d. Write a file format reader**

146. Which of the following statements about universal form recognition services are correct?

- a. rows represents the line information of a text block**
- b. columns represents the column information of a text block**
- c. The incoming image data needs to go through base64 coding**
- d. words represent text block recognition result**

147. Tensor is the data storage component of MindSpore.

- a. TRUE**
- b. FALSE

148. Training error will reduce the accuracy of the model and produce under-fitting. How to improve the model fit? (Multiple choice)

- a. Increase the amount of data**
- b. Feature Engineering**
- c. Reduce regularization parameters
- d. Add features**

149. Which of the following companies first developed TensorFlow?

- a. Oracle
- b. Facebook
- c. Nvidia
- d. Google**

150. What is the role of keras.preprocessing in TensorFlow2.0 ?

- a. Data processing tools**
- b. Built-in optimizer
- c. Model deployment tool
- d. Generative model tool

151. Deep learning is a branch of machine learning
- True**
  - False
152. Which of the following descriptions of machine learning is correct?
- Deep learning is a branch of machine learning**
  - Deep learning and machine learning are mutually inclusive
  - Deep learning and machine learning are both artificial intelligence but have no relationship to each other
  - None of the above
153. It is fine to pass in only one image when calling the face comparison service.
- TRUE
  - FALSE**
154. L1 and L2 Regularization are the methods commonly used in traditional machine learning to reduce generalization errors. Which of the following descriptions are correct?
- L1 Regularization can do feature selection**
  - L1 and L2 Regularization can be used for feature selection
  - L2 Regularization can do feature selection
  - L1 and L2 Regularization cannot be used for feature selection
155. In the face search service, if we want to delete a certain face set, we can use this code: `firs_cli.get_v2().get_face_set_service().delete_face_set("***")`, where "\*\*\*" is to fill in the actual face set name.
- TRUE**
  - FALSE
  -
156. The word recognition in the speech recognition service refers to the synchronous recognition of short speech. Upload the entire audio at once, and the recognition result will be returned in the response.
- True**
  - False
157. Which of the following neural network structures will share weights? (Multiple choice)
- Convolutional neural network**
  - Recurrent neural network**
  - Fully connected neural network
  - All of the above
158. There are many types of agents according to different industries and application scenarios. Currently, Huawei Cloud EI has :
- Industrial Agent**
  - Traffic Agent**
  - Park Agent**
  - Car intelligence**

159. How many spaces does PEP 8 stipulate that Python's first line indentation needs to indent?
- a. 1
  - b. 2
  - c. **4**
  - d. 8
160. In what year did Huawei officially provide services in the form of cloud services, and combined with more partners to provide richer artificial intelligence practices?
- a. 2002
  - b. 2013
  - c. 2015
  - d. **2017**
161. Input a 32\*32 Image into a CNN with a convolution kernel of size 5\*5, after convolution calculation, the size of the output image is:
- a. 28\*23
  - b. **28\*28**
  - c. 29\*29
  - d. 23\*23
162. Which of the following options is not the session mode used by Tensorflow?
- a. Explicitly call the session to generate function
  - b. Explicitly call the session to close function
  - c. Through the Python context manager
  - d. **Multiple POST queries**
163. Which of the following is the function of HUAWEI HiAI Foundation module?
- a. App integrated
  - b. Let the service actively find users
  - c. **Quickly convert and migrate existing models**
  - d. According to user needs, push services at the right time and at the right time
164. Which of the following are the activation functions of deep learning algorithms?
- a. **Sigmoid**
  - b. **ReLU**
  - c. **Tanh**
  - d. Sin
165. Which of the following statements about Python are correct? (Multiple choice)
- a. **Invented in 1989 by the Dutch Guido van Rossum, the first public release was issued in 1991.**
  - b. **Python is purely free software and the source code follows the GPL (GNU General Public License) protocol**

- c. **Python syntax is simple and clean. One of the features is to force blank characters to be used as statement indentation**
- d. **Python is often nicknamed glue language which can easily connect various modules made in other languages**

166. In the Code `model.fit(mnist.train.inimage,mnist.train.labels,epochs=5)`, what does the `epochs` parameter mean?

- a. **The entire training set will be trained 5 times**
- b. The entire test set will be tested 5 times
- c. The entire training set will be divided into 6 shares
- d. The entire training set will be divided into 5 shares

167. Which of the following are solutions for the Huawei Cloud EI industry scenario?  
(Multiple Choice)

- a. **Intelligent Logistics**
- b. **Intelligent Water**
- c. **Intelligent transportation**
- d. **Intelligent Finance**
- e. **Intelligent manufacturing**

168. When the voice recognition service is successfully called, which field is the recognition result stored in?

- a. **result**
- b. content
- c. data
- d. text

169. What are the commonly used kernel functions in SVM?

- a. **Gaussian kernel function**
- b. **Polynomial kernel function**
- c. **Sigmiod Kernel function**
- d. **Linear kernel**

170. K Folding cross-validation refers to dividing the test data set into K sub-data sets.

- a. TRUE
- b. **FALSE**

171. The Python dictionary is widely identified by "{}", and the internal data consists of the key and its corresponding value.

- a. **True**
- b. False

172. Which of the following is not an application of image recognition services?

- a. Target Detection
- b. Smart photo album
- c. Scene analysis
- d. **Speech synthesis**

173. About Bayesian formula  $P(W|X)=P(X|W)*P(W)/P(X)$ , which is the correct description?
- a.  $P(W|X)$  is a prior probability
  - b.  $P(X|W)$  is a conditional probability**
  - c.  $P(W)$  is the posterior probability
  - d.  $P(X)$  is the posterior probability
174. Which step is not part of the operation of a Python file object?
- a. open
  - b. delete**
  - c. read
  - d. write
  - e. close
175. Among the following machine learning algorithms, which is not unsupervised learning?
- a. Clustering
  - b. Association rules
  - c. Xgboost**
  - d. GMM
176. Which description is wrong about the lambda function of the Python language?
- a. Lambda is just an expression, and the function body is much simpler than def.
  - b. The body of a lambda can be an expression or a block of code
  - c. The lambda function can access the parameters in the global namespace.
  - d. The lambda function accepts only one parameter value**
177. TensorFlow is an end-to-end open source platform for machine learning and deep learning.
- a. TRUE
  - b. FALSE
178. Deep learning algorithms can be divided into supervised learning and unsupervised learning.
- a. True**
  - b. False
179. Which of the following descriptions of Python module is wrong?
- a. The Python module is a Python file that ends with ".py" and contains Python object definitions and Python statements.
  - b. The Python module allows you to logically organize your Python code snippets.
  - c. Python modules can define functions classes and variables but the module does not contain executable code**
  - d. Assigning relevant code to a module can make your code better and easier to understand.
180. Deep learning neural network training requires a lot of matrix calculations. Generally, we need to use hardware to enable the computer to have parallel computing



capabilities. Which of the following hardware devices can provide parallel computing capabilities?

- a. Motherboard
- b. RAM
- c. **GPU**
- d. CPU

181. Artificial intelligence is a new technical science that studies and develops theories, methods and application systems for simulating, extending and extending human intelligence. It is one of the core research areas of machine learning.

- a. True
- b. **False**

182. Which of the following is not the difference between Python 2 and Python 3?

- a. print
- b. Unicode
- c. **import**
- d. xrange

183. Grid search is a method of parameter adjustment.

- a. TRUE
- b. **FALSE**

184. Huawei firmly believes that the value of AI is ultimately reflected in solving the actual business problems of the enterprise. Therefore, Huawei is firmly committed to the development of AI technology, focusing on domain solutions, focusing on basic technologies and enabling platforms, and working with industry practice leaders to develop industry solutions

- a. **True**
- b. False

185. In a neural network based on connectionism, each node can express a specific meaning.

- a. TRUE
- b. **FALSE**

186. Which of the following is not a Python operator?

- a. Arithmetic operator
- b. **Reasoning operator**
- c. Logical operator
- d. Comparison operator

187. The three stages of artificial intelligence include computational intelligence, ( ), Cognitive intelligence.

- a. Weak artificial intelligence
- b. **Perceptual intelligence**
- c. Behavioural intelligence

- d. Strong artificial intelligence
188. Which of the following options do not belong to the scope of Huawei's full-stack solution?
- a. Application enable
  - b. Edge computing**
  - c. Open source framework
  - d. Chip enable
189. The trace operation returns the sum of the diagonal elements of the matrix. Therefore, the trace of matrix A and its transposed matrix are equal.
- a. True**
  - b. False
190. In TensorFlow, data is represented in the form of tensors and calculation charts.
- a. True
  - b. False**
191. Global gradient descent algorithm, stochastic gradient descent algorithm and batch gradient descent algorithm are all gradient descent algorithms. Which of the following is wrong about its advantages and disadvantages.
- a. The global gradient algorithm can find the minimum value of the loss function
  - b. Batch gradient algorithm can solve the local minimum problem
  - c. Stochastic gradient algorithm can find the minimum value of the loss function**
  - d. The convergence process of the global gradient algorithm is time-consuming
192. What of the following values are empowered by HUAWEI HiAI?
- a. Safety**
  - b. stable**
  - c. real time**
  - d. at any time**
193. Artificial intelligence is still in the weak artificial intelligence stage.
- a. TRUE**
  - b. FALSE
194. Which of the following are the elements of artificial intelligence? (Multiple choice)
- a. Algorithm**
  - b. Computing power**
  - c. Data**
  - d. Scene**
195. If a model has a large deviation on the test set and a small variance, it means that the model?

- a. Overfitting
- b. May be overfitting may be underfitting
- c. Just fit
- d. Underfitting**

196. As shown below, which are the following matrix A characteristic value? (Multiple choice)

$$A = \begin{bmatrix} 3 & -1 \\ -1 & 3 \end{bmatrix}$$

- a. 2**
- b. -2
- c. -4
- d. 4**

197. Information theory is a branch of applied mathematics. The main research is to quantify how much information a signal contains. Who is the first to propose information theory?

- a. Minsky
- b. Turing
- c. Simon
- d. Shannon**

198. Deep learning is different from machine learning and there are no unsupervised algorithms

- a. True
- b. False**

199. Which of the following descriptions about the value k in KNN Algorithm is correct?

- a. The larger the value, the easier the model is to overfit
- b. The larger the value, the smoother the segmentation surface of the classification**
- c. k Value is a hyperparameter**
- d. k Value can be set to 0

200. Which of the following is not part of the deep learning development framework?

- a. CNTK
- b. Keras
- c. SAFA**
- d. MXNet

201. Which of the following are the cloud services provided by Huawei Cloud EI Visual Cognition? (Multiple choice)

- a. Text recognition**
- b. Face recognition**
- c. Image recognition**
- d. Content detection**
- e. Image processing**

202. Recurrent neural networks can capture dynamic information in serialized data.
- a. **TRUE**
  - b. FALSE
203. Which of the following are AI Subfield?
- a. **Machine learning**
  - b. **Computer vision**
  - c. **Speech Recognition**
  - d. **Natural language processing**
204. From the perspective of technical architecture, the classification of AI chips includes?
- a. **FPGA**
  - b. **CPU**
  - c. **GPU**
  - d. **ASIC**
205. Which of the following aspects belong to Huawei's full stack AI solution?
- a. **Ascend**
  - b. **CANN**
  - c. **ModelArts**
  - d. **MindSpore**
206. There are multiple models of AI servers. Which is the one based on the Kunpeng processor platform?
- a. Atlas 800 model: 9000
  - b. **Atlas 800 model: 3000**
  - c. Atlas 800 model: 3010
207. Which of the following AI technologies can be integrated into Huawei Cloud EI to improve efficiency and improve experience of application scenarios of all walks of life?
- a. **EI Agent**
  - b. OBS Object storage service
  - c. Cloud database
  - d. EI Big data service
208. In the gradient descent algorithm, which of the following algorithms is the most confusing algorithm for the trajectory on the loss function surface?
- a. **SGD**
  - b. BGD
  - c. MGD
  - d. MBGD
209. Which of the following activation functions are prone to vanishing gradient problems?

- a. ReLU
  - b. Softplus
  - c. **Tanh**
  - d. **Sigmoid**
210. Which is the correct description of the python function creation? (Multiple choice)
- a. **The function starts with the “def” keyword followed by the function name and parentheses.**
  - b. **The parameters need to be placed in parentheses**
  - c. **The function content starts with a colon and needs to be indented**
  - d. **Return the result with return and the function ends.**
211. Regarding backpropagation, which of the following statements is wrong?
- a. **Backpropagation can only be used in feedforward neural networks**
  - b. Backpropagation passes through the activation function
  - c. Back propagation refers to the back propagation of errors through the network
  - d. Backpropagation can be combined with gradient descent algorithm to update network weights
212. Which of the following neural networks is more suitable to solve image classification problem?
- a. sensor
  - b. Recurrent neural network
  - c. **Convolutional Neural Network**
  - d. Fully connected neural network
213. tf.keras.datasets can be used to view built-in data set of keras.
- a. **True**
  - b. False
214. Which of the following about the dictionary in Python is correct? (Multiple Choice)
- a. **Each key and its corresponding value need to be separated by “:”**
  - b. **Separate the different key-value with “,”**
  - c. **The entire dictionary is included in the “{}”**
  - d. **The keys of the dictionary are unique and the data type is uniform**
215. Principal Component Analysis (PCA) is a statistical method. A set of variables that may be related to each other is transformed into a set of linearly related variables by orthogonal transformation. The converted set of variables is called the principal component.
- a. True
  - b. **False**
216. The number of hidden layers of the deep learning neural network has a certain impact on the performance of the network. Which of the following statement about its impact is correct?

- a. The number of hidden layers is appropriately reduced, and the resolution ability of the neural network remains unchanged
  - b. With the appropriate increasing of the number of hidden layers appropriately, the resolution ability of the neural network become stronger**
  - c. If the number of hidden layers is appropriately reduced, the resolution ability of the neural network is stronger.
  - d. If the number of hidden layers increases appropriately, the resolution ability of the neural network become weaker
217. Generative confrontation networks are currently widely used. Which of the following scenarios can use this network?
- a. Data enhancement**
  - b. Semantic segmentation**
  - c. Information retrieval**
  - d. Image generation**
218. The Python language can use multiple statements on the same line, separated by commas ".".
- a. True
  - b. False**
219. What are the application scenarios for the break statement in the Python language? (Multiple Choice)
- a. Any Python statement
  - b. while loop statement**
  - c. for loop statement**
  - d. Nested loop statement**
220. When we describe the house, we usually use the attributes such as residential area, house type, decoration type, etc. If we use Naive Bayes as a model, we assume that there is no relationship between attributes.
- a. TRUE**
  - b. FALSE
221. A linear regression model with L1 regular term is called a Lasso regression model.
- a. True**
  - b. False
222. Which of the following statements about neural networks is wrong?
- a. As the number of hidden layers of the neural network increases, the classification ability of the model gradually weakens**
  - b. The limitation of a single-layer perceptron is that it cannot solve the XOR problem
  - c. The feedforward neural network can be represented by a directed acyclic graph
  - d. There is no connection between neurons in the same layer of the feedforward neural network

223. With Atlas300 (3000), what conditions need to be checked when the accelerator card server compiles and runs the program?
- a. **Atlas Driver Installation is carried out**
  - b. CUDA Software package is installed
  - c. **Cmake Compilation tool is installed**
  - d. **Environment configuration is completed**
224. The commonly used loss functions in deep learning are?
- a. L1 Loss function
  - b. **Mean square error loss function**
  - c. **Cross entropy error loss function**
  - d. Self-declining loss function
225. Among the following machine learning algorithms, which of the following is not unsupervised learning?
- a. GMM
  - b. **Xgboost**
  - c. Clustering
  - d. Association rules
226. Loss function and model function are the same thing.
- a. TRUE
  - b. **FALSE**
227. Which of the following is not the optimization method in deep learning?
- a. Random gradient descent
  - b. Back propagation algorithm
  - c. **Principal component analysis**
  - d. Momentum
228. Which tool does the HUAWEI HiAI platform support to integrate with?
- a. Jupyter Notebook
  - b. MyEclipse
  - c. **Android Studio**
  - d. Spider
229. Huawei Ascend AI Chip is one of the typical representative of NPU (Neural network processor).
- a. **True**
  - b. False
230. Python regular expressions are a special sequence of characters that makes it easy to check if a string matches a pattern.
- a. **True**
  - b. False

231. Which of the following statements about the image content review service is wrong?
- a. Test results for sensitive persons involved in politics
  - b. Test results for political violence
  - c. **Represents confidence, range 0-100**
  - d. Label representing each test result
232. In TensorFlow2.0, the method can continue to be used.
- a. TRUE
  - b. **FALSE**
233. The timestamps in the Python language are represented by how long (in seconds) elapsed from midnight (epoch) on January 1, 1970
- a. **True**
  - b. False
234. Which of the following are the topics of speech processing research?
- a. **Speech processing**
  - b. **Voiceprint recognition**
  - c. **Speech Recognition**
  - d. Wake up
235. The TensorFlow framework does not support Windows systems.
- a. True
  - b. **False**
236. In the process of training the neural network, our goal is to keep the loss function reduced. Which of the following methods do we usually use to minimize the loss function?
- a. **Gradient descent**
  - b. Dropout
  - c. Cross-validation
  - d. Regularization
237. There can be more than one tag returned by image label service.
- a. **TRUE**
  - b. FALSE
238. Recurrent neural network is different from convolutional neural network. Which of the following problems is better to be solved by RNN
- a. **Sequence related issues**
  - b. Image classification
  - c. Image detection
  - d. Recommended question
239. What are the numeric types of Python? (Multiple Choice)
- a. **int (integer type)**
  - b. **long (long integer type)**



- c. **float (floating point type)**
- d. **complex (complex number type)**

240. What are the conditions for m row n column matrix A and p row q column matrix B to be multiplied?
- a.  $m=p, n=q$
  - b.  **$n=p$**
  - c.  $m=n$
  - d.  $p=q$
241. Which of the following statements about recurrent neural networks is wrong?
- a. Recurrent neural network can be unfolded according to the time axis
  - b. **LSTM is unable to solve the problem of vanishing gradient**
  - c. LSTM is also a recurrent neural network
  - d. Recurrent neural network can be abbreviated as RNN
242. TensorFlow only supports Python and R language
- a. True
  - b. **False**
243. Machine Learning Service is a data mining and analytics platform service that helps users quickly discover data patterns and build predictive models through machine learning techniques and deploy them as predictive analytics solutions.
- a. **True**
  - b. False
244. Which of the following can optimization problem be classified according to the constraints? (Multiple choice)
- a. **Equality constraints**
  - b. **Inequality constraints**
  - c. **Unconstrained conditions**
  - d. Semi-constrained conditions
245. AI Chip is also called AI Accelerators, which are specially designed to handle a large number of computing tasks in artificial intelligence applications functional module.
- a. **TRUE**
  - b. FALSE
246. Which of the following characterises does not belong to TensorFlow 2.0?
- a. **Multi-core CPU accelerate**
  - b. distributed
  - c. multi-language
  - d. Multi-platform
247. Functions are well-organized, non-reusable code segments used to implement a single, or associated Function.
- a. True

**b. False**

248. Tensorflow is the second generation of artificial intelligence learning system developed by Google based on ( ).

- a. DistBelief**
- b. PaleyFunction
- c. ConvexOne
- d. Infinity

249. Under the large-scale relationship analysis scenario, which of the following options does not belong to the three high demands of massive relationship processing?

- a. Efficient relationship discovery data for massive data
- b. Efficient sharing of massive data**
- c. Efficient storage and access requirements for massive amounts of data
- d. High scalability and high availability requirements for relational analysis platforms

250. Which of the following items are included in the results returned when the face search service is successfully called?

- a. Searched face similarity**
- b. Searched faces id**
- c. Searched face position**
- d. Searched face number

251. Which of the following are AI Application areas?

- a. Wisdom education**
- b. Smart City**
- c. Smart home**
- d. Smart medical**

252. Tensorflow supports multi-TPU cluster computing

- a. True**
- b. False

253. Which description is wrong about the hyperparameter?

- a. Hyperparameters are parameters that set values before the algorithm begins learning.
- b. Most machine learning algorithms have hyperparameters.
- c. Hyperparameters cannot be modified**
- d. The value of the hyperparameter is not learned by the algorithm itself.

254. According to Huawei Cloud EI Intelligent platform, which of the following solutions can be provided?

- a. Crowd statistics program**
- b. Policy query scheme based on knowledge graph**
- c. Vehicle identification scheme**
- d. Intrusion recognition scheme**

255. Which of the following is not an artificial intelligence school?
- a. Symbolism
  - b. Statisticism**
  - c. Behaviourism
  - d. Connectionism
256. The three main advantages of Keras in TensorFlow 2.0 are:
- a. The interface is user-friendly**
  - b. Modular and combination**
  - c. Easy to expand**
  - d. None of the above
257. Which of the following options is not a tensor attribute?
- a. name (Logo)
  - b. shape (Dimensionality)
  - c. type (Type)
  - d. node (Node)**
258. All convolution kernels of the same convolution layer in the convolutional neural network are weight-sharing.
- a. TRUE**
  - b. FALSE
259. Which of the following statements about RNN Model is correct?
- a. There is no one-to-one model structure
  - b. Do not consider the time direction when backpropagating
  - c. There is no many-to-many model structure
  - d. There will be a problem of attenuation of long-term transmission and memory information**
260. Which module does the face detection belong to in the Huawei HiAI platform?
- a. HiAI Engine**
  - b. HiAI Framework
  - c. HiAI Foundation
  - d. HiAI Service
261. When training the DNN, we often encounter many problems. Which of the following functions can be used to alleviate the problem of vanishing gradient?
- a. Relu function**
  - b. Sigmoid function
  - c. tanh function
  - d. Softsign function
262. Which of the following statements about passport recognition services are correct?
- a. Country\_code: represents the country where the passport was issued**

- b. **Nationality: represents the nationality of representative holder**
- c. **passport\_number: represents passport number**
- d. **confidence: Confidence information of related fields. The greater the confidence, the higher the reliability of the corresponding field identified this time. In a statistical sense, the greater the confidence, the higher the accuracy**

263. The determinant of square matrix A is a scalar.

- a. **True**
- b. False

264. When using keras of TensorFlow 2.0 to build a neural network with an interface, the network needs to be compiled. Which of the following methods should be used to compile?

- a. **compile**
- b. write
- c. join
- d. fit

265. X, Y are random variables, C is a constant, which of the nature of the difference in the following options is wrong? (Multiple choice)

- a.  $D(C)=0$
- b.  **$D(X+Y)=D(X)+D(Y)$**
- c.  $D(CX)=C'C'D()()$
- d.  **$D(XY)=D(X)D(Y)$**

266. Which of the following descriptions of expectations and variances is incorrect?

- a. Expectation reflects the average level of random variable values
- b. The variance reflects the degree of deviation between the random variable and its mathematical expectation
- c. Expectation and variance are both numerical characteristics of random variables
- d. **The greater the expectation the smaller the variance**

267. In the deep learning neural network, the perceptron is the simplest neural network. The correct statement about its structure is:

- a. There are only two hidden layers
- b. **Only one hidden layer**
- c. Its network uses Sigmoid Activation function
- d. Its network uses Relu Activation function

268. What is the most important difference between batch gradient descent, mini-batch gradient descent, and stochastic gradient descent?

- a. Gradient size
- b. Gradient direction
- c. Learning rate
- d. **Number of samples used**

269. According to the definition of information entropy, what is the bit entropy of throwing a uniform coin?
- a. 0
  - b. 0.5
  - c. **1**
  - d. -1
270. Which of the following is not features of the c MindSpore core architecture?
- a. Automatic differentiation
  - b. Automatic tuning
  - c. **Automatic coding**
  - d. Automatic parallel
271. Convolutional neural networks are more suitable for dealing with speech recognition problems.
- a. True
  - b. **False**
272. In order for a machine to be intelligent, it must be knowledgeable. Therefore, there is a research field in artificial intelligence, which mainly studies how computers automatically acquire knowledge and skills to achieve self-improvement. What is the branch of this research called?
- a. Expert system
  - b. **Machine learning**
  - c. Neural Network
  - d. Natural language processing
273. Which of the following attributes is common in Ascend 310 and Shengteng 910?
- a. Maximum power
  - b. **Architecture**
  - c. Integer precision
  - d. 7nm Process
274. What are the algorithms supported by Tensorflow? (Multiple Choice)
- a. **GNN**
  - b. ZNN
  - c. **RNN**
  - d. HUT
275. Where should the labelled data be placed in the Generative Adversarial Network?
- a. As the output value of the generated model
  - b. **As the input value of the discriminant model**
  - c. As the output value of the discriminant model
  - d. As input value for generative model

276. Which of the following description is wrong about the image recognition cloud service?
- a. The service identifies specific objects such as skyscrapers, buildings, and ships.
  - b. The service can also identify the sea, city, port and other scenes.
  - c. The service can perform semantic analysis on the content in the image to extract labels with specific abstract meanings
  - d. The service can provide object and scene labels and can also provide more conceptual labels.**
277. Which of the following is not a specific technology of artificial intelligence?
- a. Knowledge map
  - b. Machine translation
  - c. Riemann geometry**
  - d. Semantic understanding
278. HiAI Mobile computing platform provides rich upper-level functional services API, which can run efficiently on mobile devices.
- a. TRUE**
  - b. FALSE
279. In the deep learning network, the backpropagation algorithm is used to find the optimal parameters. What rules are used in the backpropagation algorithm to obtain the derivation layer by layer?
- a. Chain rule**
  - b. Cumulative rule
  - c. Law of reciprocity
  - d. Rule of Normalization
280. Which of the following descriptions about the Recurrent Neural Network (RNN) is correct?
- a. Can be used to process sequence data.**
  - b. Cannot process variable length sequence data.
  - c. Unlike convolutional neural networks, parameters of RNN cannot be shared
  - d. The units above the hidden layer are not associated with each other.
281. Which of the following capabilities does the genetic knowledge map have?
- a. Auxiliary case diagnosis**
  - b. Disease prediction and diagnosis
  - c. Gene test report generation**
  - d. Entity query**
282. What research areas does artificial intelligence have? (Multiple choice)
- a. Natural language processing**
  - b. Computer Vision**
  - c. Machine learning**
  - d. Speech recognition**

283. The Python language can use the "#" at the beginning of a single line of code for comments.
- a. **True**
  - b. False
284. When the universal text recognition service is successfully called, the returned text recognition result is stored in which of the following fields?
- a. text
  - b. **result**
  - c. content
  - d. words
285. The following options belong to keras under estimator. The encapsulation methods are?
- a. **Assessment**
  - b. **training**
  - c. **prediction**
  - d. Output model
286. What are the regularizations in deep learning? (Multiple Choice)
- a. **L1 norm, L2 norm**
  - b. **Dataset enhancement**
  - c. **Integration method**
  - d. **Dropout**
287. Which of the following description about Python regular expression is not correct?
- a. Python has added three regular expression module since version 1.5.
  - b. Regular expression module gives the Python language all the regular expression functionality.
  - c. Regular expressions are powerful tools for working with strings.
  - d. **Regular expressions can only process string data not numeric data**
288. The for loop statement in the Python language can iterate through the items in any sequence.
- a. **True**
  - b. False
289. The following applications that are not part of the adversarial generation network are?
- a. Text generation
  - b. Image generation
  - c. **Image Identification**
  - d. Data enhancement
290. Regarding the face search service, which of the following statements are correct?
- a. **When there is no face set, you need to create a face set first, then add face data, and then search**
  - b. The size of a face set cannot exceed 10000 Pictures

- c. **There is a dedicated interface to delete the specified face set**
- d. **There is a dedicated interface to delete the face data in a certain face set**

291. GPU is good at computationally intensive and easy to parallel programs.
- a. **TRUE**
  - b. FALSE
292. Which of the following options may be used in calling Huawei cloud services?
- a. **ak**
  - b. **region**
  - c. **project\_id**
  - d. **sk**
293. The matrix produced by the exchange of matrix A rows and columns is called the transpose of A. What are the correct properties of matrix transposition? (Multiple Choice)
- a.  **$(A^T)^T = A$**
  - b.  **$(A + B)^T = A^T + B^T$**
  - c.  **$(kA)^T = kA^T$**
  - d.  **$(AB)^T = A^T B^T$**
294. The activation function plays an important role in the neural network model learning and understanding of very complex problems. Which of the following statements about the activation function is correct.
- a. Activation functions are linear functions
  - b. **Activation functions are non-linear functions**
  - c. The activation function is partly a nonlinear function, partly a linear function
  - d. Most of the activation functions are nonlinear functions, and a few are linear functions
295. Which of the following is not included in the recurrent neural network application scenario?
- a. Machine translation
  - b. Speech recognition
  - c. **Image style migration**
  - d. Text generation
296. Which of the following options is not a reason for traditional machine learning algorithms to promote the development of deep learning?
- a. Dimensional disaster
  - b. local invariance and smooth regularization
  - c. Manifold learning
  - d. **Feature Engineering**
297. Which of the following is not a face recognition technology?
- a. Face search
  - b. Face comparison
  - c. Face detection
  - d. **Remake recognition**



298. Which of the following evaluation indicators belongs to the regression algorithm?
- a. Recall rate
  - b. Confusion matrix
  - c. **Mean square error**
  - d. Accuracy
299. Which of the following is an image label service URI?
- a. /v1.0/image/recognition
  - b. /v1.0/image/celebrity-recognition
  - c. /v1.0/image/recapture-detect
  - d. **/v1.0/image/tagging**
300. What are the Python language data types? (Multiple Choice)
- a. **numbers**
  - b. **String**
  - c. **list**
  - d. **tuple**
  - e. **dictionary**
301. Which of the following data types does Tensorflow not support?
- a. int8
  - b. float32
  - c. **double64**
  - d. boolean
302. Which of the following is not a module in the Tensorflow library?
- a. tf.nn
  - b. tf.layers
  - c. **tf boost**
  - d. tf.contrib
303. Which is wrong with the Python module time introduction method?
- a. import time
  - b. from time import \*
  - c. import time as t
  - d. **from time**
304. Which company launched Pytorch first?
- a. Baidu
  - b. Google
  - c. **Facebook**
  - d. Huawei
305. What processor is used for Atlas AI inference?
- a. Different 910 processor
  - b. **Different 310 processor**

- c. GPU
- d. FPGA

306. Which of the following options is not part of the Tensorflow build process?

- a. Building a calculation chart
- b. Input tensor
- c. Generate a session
- d. Update weights**

307. The fitted surface of linear regression in the dimension above 3 is:

- a. Curved surface
- b. Flat
- c. Hyperplane**
- d. Hypersurface

308. Which of the following products is related to artificial intelligence? (Multiple Choice)

- a. Alpha Go**
- b. Self-driving**
- c. Voice input**
- d. Huawei Mate mobile phone**

309. Which of the following operators is not supported in TensorFlow 2.0?

- a. pow
- b. @
- c. ^**
- d. //

310. Which of the attributes for dimensional transformation are not supported in TensorFlow2.0?

- a. squeeze
- b. reshape
- c. gather**
- d. transpose

311. Which of the following options is not supported in TensorFlow2.0 for dimensional transformation

- a. squeeze
- b. reshape
- c. gather**
- d. Transpose

312. Which descriptions are correct about python's index? (Multiple Choice)

- a. Index from left to right defaults from 0**
- b. Index from left to right defaults from 1
- c. Index from right to left defaults from -1**
- d. Index from right to left defaults from 0

313. The following code is used when compiling the model: `model.compile(optimizer='Adam', loss='categorical_crossentropy', metrics=[tf.keras.metrics.accuracy])`. Which of the following indicators will be output when the method `evaluate` is used to evaluate the model?
- a. **accuracy**
  - b. categorical\_loss
  - c. **loss**
  - d. categorical accuracy
314. Which of the following basic platform services are included in Huawei Cloud EI Enterprise Intelligence? (Multiple Choice)
- a. **Machine learning**
  - b. **Deep learning**
  - c. **Graph engine**
  - d. **Batch processing**
315. Which of the following operating systems does not support TensorFlow?
- a. Linux
  - b. Mac OS
  - c. Docker
  - d. **OpenStack**
316. The Python language does not allow embedding another loop body in a loop body.
- a. True
  - b. **False**
317. An e-commerce company has always had problems with official website stalls, poor utilization of network resources, and difficulty in operation and maintenance. Which of the following EI services can the company use?
- a. Park Agent
  - b. Traffic Agent
  - c. **Network Agent**
  - d. Industrial Agent
318. Artificial intelligence is currently suitable for scenarios with a known environment, clear objectives, and predictable action. Deep learning is used in the fields of image recognition, speech recognition, translation, etc. Artificial Intelligence basically has human recognition ability, even surpassing human beings. Based on these capabilities. It has been applied to many scenes such as medical care and public safety. However, there is still a lack of reasoning and cognition.
- a. **True**
  - b. False
319. Regularization is an important and effective technique for reducing generalization errors in traditional machine learning. Which of the following techniques are regular?
- a. **L1 Regularization**
  - b. **L2 Regularization**
  - c. **Dropout**

d. Momentum optimizer

320. The mechanism of graphs and conversations has been cancelled in TensorFlow2.0.

- a. TRUE
- b. FALSE

321. What are the common types of dirty data?

- a. **Malformed value**
- b. **Duplicate value**
- c. **Logically wrong value**
- d. **Missing value**

322. Which is not a deep learning algorithm?

- a. Generative Adversarial Network
- b. Convolutional neural networks
- c. Recurrent neural networks
- d. **Support vector machine**

323. In TensorFlow2.0, which of the following methods can be used to check if it is a tensor?

- a. dtype
- b. **isinstance**
- c. **is\_tensor**
- d. device

324. If scalar k is multiplied by matrix A, the result equals to each of the numbers in A is multiplied by k.

- a. **True**
- b. False

325. Feature is the dimension that describes the characteristics of the sample. Regarding its interpretability in traditional machine learning and deep learning, which of the following statement is correct?

- a. **Features are interpretable in traditional machine learning, but weak in deep learning**
- b. Features are weak in traditional machine learning, but strong in deep learning
- c. Features are weak in interpretability in traditional machine learning and deep learning
- d. Features are interpretable in traditional machine learning and deep learning

326. Which of the following features does Python support? (Multiple choice)

- a. **inheritance**
- b. **Heavy load**
- c. **Derived**
- d. **Multiple inheritance**

327. What of the following networks belong to convolutional neural network (CNN)?  
(Multiple Choice)
- a. **VGGNet**
  - b. **ResNet**
  - c. **AlexNet**
  - d. **GoogleNet**
328. Cyclic neural networks are more suitable for dealing with image recognition problems.
- a. True
  - b. **False**
329. Which of the following does the convolutional neural network structure not include?
- a. Convolutional layer
  - b. Pooling layer
  - c. **Loop layer**
  - d. Fully connected layer
330. Regarding the convolutional neural network pooling layer, which of the following description is correct?
- a. **Pooling operation is realized by scanning window**
  - b. **The pooling layer can play a role in dimensionality reduction**
  - c. **Commonly used pooling methods include maximum pooling and average pooling**
  - d. **The pooled feature image becomes smaller**
331. What is wrong description of backpropagation?
- a. The learning process of the backpropagation algorithm consists of a forward propagation process and a back-propagation process.
  - b. The backpropagation algorithm is a learning algorithm suitable for multi-layer neural networks, which is based on the gradient descent method
  - c. **The backpropagation phase sends training inputs to the network to obtain an stimuli response**
  - d. The backpropagation process will repeat until the response of the network to the input reaches the predetermined target range.
332. Which of the following statements are correct about the difference between machine learning algorithms and traditional rule-based methods?
- a. **Traditional rule-based methods, in which the rules can be explicitly clarified manually**
  - b. **Traditional rule-based methods use explicit programming to solve problems**
  - c. **The mapping relationship of the model in machine learning is automatically learned**
  - d. The mapping relationship of the model in the machine learning institute must be implicit
333. Regarding backpropagation, which of the following statements is wrong?
- a. **Backpropagation can only be used in feedforward neural networks**
  - b. Backpropagation can be combined with gradient descent algorithm to update network weights
  - c. Backpropagation passes through the activation function

- d. Back propagation refers to the back propagation of errors through the network
334. The image data of the passport recognition service is needed to be base64 Coded.
- a. **True**
  - b. False
335. When dealing with actual situations as below, when should machine learning be used?
- a. **The data distribution itself changes over time, requiring continuous re-adaptation of the program, such as predicting the trend of merchandise sales**
  - b. The complexity of the rules is low, and the problem is small
  - c. **Task rules will change over time, such as defect detection on the production line**
  - d. **The rules are very complicated or cannot be described, such as face recognition and voice recognition**
336. The Python list can be identified by '[]', and the default index of the first element from left to right is 1.
- a. True
  - b. **False**
337. Which command can be checked whether the accelerator card is in place in Atlas 300 (3000) ?
- a. `lspci | grep'npu'`
  - b. **`lspci | grep'd100'`**
  - c. `lspci grep'atlas'`
  - d. `atlas info`
338. Which of the following steps in deep learning are automatically completed by the model?
- a. Model training
  - b. **Feature selection**
  - c. Analysis and positioning task
  - d. **Feature extraction**
339. HUAWEI CLOUD EI enable more use of AI And big data services to accelerate business development and benefit society. Which of the following areas can benefit from using HUAWEI CLOUD EI service?
- a. **Industry data**
  - b. **Industry wisdom**
  - c. **algorithm**
  - d. **Computing power**
340. In a neural network, knowing the weight and deviations of each neuron is the most important step. If you know the exact weights and deviations of neurons in some way, you can approximate any function. What is the best way to achieve this?
- a. Random assignment, pray that they are correct
  - b. Search for a combination of weight and deviation until the best value is obtained

- c. **Assign an initial value to iteratively update weight by checking the difference between the best value and the initial**
- d. The above is not correct

341. What are the commonly used gradient descent optimization functions? (Multiple Choice)

- a. **Random gradient descent**
- b. **Adadelta**
- c. **Adagrad**
- d. **momentum**
- e. **RMSPProp**

342. Huawei Machine learning Service MLS is a one-stop platform that supports the entire process of data analysis. Which of the following is not a feature of MLS?

- a. A rich library of machine learning algorithms.
- b. Machine learning program is intuitive and easy to use.
- c. Distributed and scalable big data computing engine.
- d. **Support for the R language but does not support the Python language**

343. When comparing GBDT with the random forest algorithm, which of the following statements is wrong?

- a. GBDT Algorithm is easier to underfit than random forest
- b. Random forest is calculated in parallel, while GBDT Can't
- c. **GBDT Algorithm is easier to overfit than random forest**
- d. GBDT And random forest are built on CART Based on the tree

344. What are the results returned by if conditional statements in the Python language? (Multiple choice)

- a. **True**
- b. **0**
- c. **FALSE**
- d. Null

345. CPUs improve AI performance mainly through increasing instructions, increasing the number of cores, etc.

- a. **TRUE**
- b. FALSE

346. The time interval in the Python language is a floating-point fraction in seconds

- a. **True**
- b. False

347. Self-encoder is an unsupervised learning algorithm

- a. **True**
- b. False

348. Among the machine learning algorithms, which of the following is not an integrated learning strategy?

- a. Boosting
- b. Stacking
- c. Bagging
- d. **Marking**

349. AI Chips used in business applications can be classified as

- a. **training**
- b. GPU
- c. Model building
- d. **Reasoning**