Machine Learning (ML) solved MCQs

501. there's a growing interest in pattern recognition and associative memories whose structure and functioningare similar to what happens in the neocortex. Such an

A. regression
B. accuracy
C. modelfree
D. scalable

C.modelfree discuss

502. showed better performance than other approaches, even without a context-based model

A. machine learning
B. deep learning
C. reinforcement learning
D. supervised learning

B.deep learning discuss

B. data miningcan be defined as the process

C. both a & b

D. none of the above

C.both a & b discuss

504. What is ‘Overfitting’ in Machine learning?

A. when astatistical model describes random error or noise instead of

B. robots areprogramed so that they can perform the task based on data they gather from

C. while involving the process of learning ‘overfitting’ occurs.

D. a set of data is used to discover the potentially predictive relationship

A.when astatistical model describes random error or noise instead of discuss

505. What is ‘Test set’?

A. test set is used to test the accuracy of the hypotheses generated by the learner.

B. it is a set of data is used to discover the potentially predictive relationship.

C. both a & b

D. none of above

A.test set is used to test the accuracy of the hypotheses generated by the learner. discuss

506. what is the function of ‘Supervised Learning’?

A. classifications, predict time series, annotate strings

B. speech recognition, regression

C. both a & b

D. none of above

C.both a & b discuss

507. Commons unsupervised applications include

A. objectsegmentation

B. similaritydetection

C. automaticlabeling

D. all above

D.all above discuss

508. Reinforcement learning is particularly efficient when .

A. the environment is not completely deterministic

B. it\s often very dynamic

C. it\s impossible to have a precise error measure

D. all above

D.all above discuss

509. During the last few years, many algorithms have been applied to deep neural networks to learn the best policy for playing Atari video games and to teach an agent how to associate the right action with an input representing the state.

A. logical

B. classical

C. classification

D. none of above

D.none of above

discuss

510. Common deep learning applications include

A. image classification, real-time visual tracking

B. autonomous car driving, logistic optimization

C. bioinformatics, speech recognition

D. all above

D.all above

discuss

511. if there is only a discrete number of possible outcomes (called categories),the process becomes a .

A. regression

B. classification.

C. modelfree

D. categories

B.classification.

discuss

512. Let's say, you are working with categorical feature(s) and you have not looked at the distribution of the categorical variable in the test data.You want to apply one hot encoding (OHE) on the categorical feature(s). What challenges you may face if you have applied OHE on a categorical variable of train dataset?

A. all categories of categorical variable are not present in the test dataset.

B. frequency distribution of categories is different in train as compared to the test dataset.

C. train and test always have same distribution.

D. both a and b

D.both a and b

discuss

513. Which of the following sentence is FALSE regarding regression?

A. it relates inputs to outputs.

B. it is used for prediction.

C. it may be used forinterpretation.

D. it discovers causalrelationships.

discuss

D.it discovers causalrelationships.

514. scikit-learn also provides functions for creatingdummy datasets from scratch:

A. make_classification()

B. make_regression()

C. make_blobs()

D. all above

discuss

D.all above

515. which can accept a NumPy RandomStategenerator or an integer seed.

A. make_blobs

B. random_state

C. test_size

D. training_size

discuss

B.random_state

B. 2

C. 3

D. 4

B.2

discuss

517. is the most drastic one and should be considered only when the dataset is quite large, the number of missing features is high, and any prediction could be risky.

A. removing the whole line

B. creating sub- model to predict those features

C. using an automatic strategy to input them according to the other known values

D. all above

A.removing the whole line

discuss

518. It's possible to specify if the scaling process must include both mean and standard deviation using theparameters .

A. with_mean=tru e/false

B. with_std=true/ false

C. both a & b

D. none of the mentioned

C.both a & b

discuss

519. Which of the following selects the best K high-scorefeatures.

A. selectpercentile

B. featurehasher

C. selectkbest

D. all above

C.selectkbest

discuss

520. Suppose you have fitted a complex regression model on a dataset. Now, you are using Ridge regression with tuning parameter lambda to reduce its complexity. Choose the option(s) below which describes relationship of bias andvariance with lambda.

A. in case of very large lambda; bias is low, variance islow

B. in case of very large lambda; bias is low, variance ishigh

C. in case of very large lambda; bias is high, variance islow

D. in case of very large lambda; bias is high, variance ishigh

discuss

work like linear regression model3. When lambda goes to infinity, we get very, very small coefficients approaching 04. When lambda goes to infinity, we get very, very large coefficients approachinginfinity

A. 1 and 3

B. 1 and 4

C. 2 and 3

D. 2 and 4

A.1 and 3 discuss

522. Which of the following method(s) does not haveclosed form solution for its coefficients?

A. ridgeregression

B. lasso

C. both ridgeand lasso

D. none of both

B.lasso discuss

523. Function used for linear regression in R is

A. lm(formula, data)

B. lr(formula, data)

C. lrm(formula, data)

D. regression.linear (formula, data)

A.lm(formula, data) discuss

524. In the mathematical Equation of Linear Regression Y = β1 + β2X + ϵ, (β1, β2) refers to

A. (x-intercept, slope)

B. (slope, x- intercept)

C. (y-intercept, slope)

D. (slope, y- intercept)

C.(y-intercept, slope) discuss

525. Suppose that we have N independent variables (X1,X2… Xn) and dependent variable is Y. Now Imagine that you are applying linear regression by fitting the best fit line using least square error on this data. You found that correlation coefficient for one of it's variable(Say X1) with Y is -0.95.Which of the following is true for X1?

A. relation between the x1 and y is weak

B. relation between the x1 and y is strong

C. relation between the x1 and y is neutral