

**BHARATI VIDYAPEETH'S  
INSTITUTE OF COMPUTER APPLICATIONS & MANAGEMENT  
NEW DELHI-63.**

ANSWER SHEET FOR SURPRISE TESTS (AI & ML)

**MCA-III SEMESTER**

Surprise Test-II

Name of the Students:  Enrol. No.:

Date:

Max Marks: **30**  
Correct Answer: **+1**  
Incorrect Answer: **-1**

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1.	The categories in which Machine learning approaches can be traditionally categorized are: A. Supervised Learning B. Unsupervised Learning C. Reinforcement Learning D. <b>All of the above</b>
2.	Which machine learning algorithms can be used with labeled data? A. <b>Regression Algorithms</b> B. Clustering Algorithms C. Association Algorithms D. All of the above
3.	Overfitting is a type of modelling error which results in the failure to predict future observations effectively or fit additional data in the existing model. Yes/No? A. <b>Yes</b> B. No C. May be D. Can't Say
4.	_____ is the scenario when the model fails to decipher the underlying trend in the input data. A. <b>Overfitting</b> B. Underfitting C. Both A and B D. None of the above
5.	The unsupervised learning problems can be grouped as _____ A. Clustering B. Association C. <b>Both A and B</b> D. None of the above
6.	Which of the following is true for the coefficient of correlation? A. The coefficient of correlation is not dependent on the change of scale B. The coefficient of correlation is not dependent on the change of origin C. <b>The coefficient of correlation is not dependent on both the change of scale and change of origin</b> D. None of the above
7.	The slope of the regression line of Y on X is also referred to as the: A. Regression coefficient of X on Y B. The correlation coefficient of X on Y C. <b>Regression coefficient of Y on X</b> D. Correlation coefficient of Y on X.
8.	Which of the given plots is suitable for testing the linear relationship between a dependent

	<p>and independent variable?</p> <p>A. Barchart  <b>B. Scatter plot</b>  C. Histograms  D. All of the above.</p>									
9.	<p>Which of the following statements is true about the arithmetic mean of two regression coefficients?</p> <p>A. It is less than the correlation coefficient  B. It is equal to the correlation coefficient  C. It is greater than or equal to the correlation coefficient  <b>D. It is greater than the correlation coefficient</b></p>									
10.	<p>Which of the following statements is true about the regression line?</p> <p>A. A regression line is also known as the line of the average relationship  B. A regression line is also known as the estimating equation  C. A regression line is also known as the prediction equation  D. All of the above</p>									
11.										
12.	<p>Which machine learning algorithms can be used with unlabeled data?</p> <p>A. Regression Algorithms  <b>B. Clustering Algorithms</b>  C. Association Algorithms  D. All of the above</p>									
13.	<p>Which of the following works with neural networks?</p> <p>A. Artificial Intelligence  <b>B. Deep Learning</b>  C. Both A and B  D. None of the above</p>									
14.	<p>We have a data-set where we are predicting number of people who have more than \$1000 in their bank account. Consider a data-set with 200 observations i.e. n=200</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>n=200</th> <th>Prediction=NO</th> <th>Prediction = YES</th> </tr> </thead> <tbody> <tr> <th>Actual = NO</th> <td style="text-align: center;">60</td> <td style="text-align: center;">10</td> </tr> <tr> <th>Actual = YES</th> <td style="text-align: center;">5</td> <td style="text-align: center;">125</td> </tr> </tbody> </table> <p style="text-align: center;">from the above matrix</p> <p>A. <b>Out of 200 cases, our classification model predicted "YES" 135 times and "NO" 65 times.</b>  B. Out of 200 cases, our classification model predicted "YES" 125 times and "NO" 65 times.  C. Out of 200 cases, our classification model predicted "YES" 135 times and "NO" 5 times.  D. Out of 200 cases, our classification model predicted "YES" 135 times and "NO" 60 times.</p>	n=200	Prediction=NO	Prediction = YES	Actual = NO	60	10	Actual = YES	5	125
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15.	<p>For the below confusion matrix, what is the count of True Negatives? Considering we want to classify 5</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Not 5</th> <th>5</th> </tr> </thead> <tbody> <tr> <th>Not 5</th> <td style="text-align: center;">53272</td> <td style="text-align: center;">1307</td> </tr> <tr> <th>5</th> <td style="text-align: center;">1077</td> <td style="text-align: center;">4344</td> </tr> </tbody> </table> <p>A. 53272  B. 1077  <b>C. 1307</b>  D. 4344</p>		Not 5	5	Not 5	53272	1307	5	1077	4344
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