

D 30884

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Name.....

Reg. No.....

**THIRD SEMESTER M.A. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2022**

(CBCSS)

Econometrics

ECM 3E 01—ANALYSIS OF ECONOMIC DATA USING COMPUTER SOFTWARE

(2020 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

Part A*Answer all questions.**Each bunch of five questions carries a weightage of 1.*

1. In which year was the Python language developed ?
 - (a) 1995.
 - (b) 1972.
 - (c) 1981.
 - (d) 1989.
2. Which of the following is not a keyword in Python language ?
 - (a) Val.
 - (b) Raise.
 - (c) Try.
 - (d) With.
3. In which year R-Core group was formed ?
 - (a) 1993.
 - (b) 1996.
 - (c) 1997.
 - (d) 1998.
4. Elementary commands in R consist of either _____ or assignments.
 - (a) Utilstats.
 - (b) Language.
 - (c) Expressions.
 - (d) Packages.
5. Functionality of R is divided into a number of _____.
 - (a) Functions.
 - (b) Domains.
 - (c) Packages.
 - (d) Files.

Turn over

6. The graph can be used for simple summarization of data is _____.
- (a) Scatterplot. (b) Overlaying.
(c) Barplot. (d) All of the mentioned.
7. How do we perform Bayesian classification when some features are missing ?
- (a) We integrate the posteriors probabilities over the missing features.
(b) We ignore the missing features.
(c) We assuming the missing values as the mean of all values.
(d) Drop the features completely.
8. _____ is the step is performed by the data scientist after acquiring the data.
- (a) Data Replication. (b) Data Integration.
(c) Data Cleansing. (d) All of the Mentioned.
9. What is the work of a Data Architect ?
- (a) Utilize large data sets to gather information that meets their company's needs.
(b) Work with businesses to determine the best usage of the information yielded from data.
(c) Build data solutions that are optimized for performance and design applications.
(d) All of the above.
10. _____ is the technique used to decompose a matrix into several component matrices.
- (a) EDA. (b) PCA.
(c) SVD. (d) None of the above.
11. The term Velocity refers in Big Data environments :
- (a) Data can arrive at fast speed.
(b) Enormous datasets can accumulate within very short periods of time.
(c) Velocity of data translates into the amount of time it takes for the data to be processed.
(d) All of the mentioned above.
12. Which of the following don't use matrices ?
- (a) In solving linear equations. (b) Image processing.
(c) Graph theory. (d) Sorting numbers.

13. _____ in excel helps display relevant data by eliminating the irrelevant entries temporarily from the view.
- (a) Chart options. (b) Mathematical funds.
(c) Transformations. (d) Filter option.
14. _____ is the value separating the higher half from the lower half of a data sample or a population.
- (a) Mode. (b) Median.
(c) Mean. (d) Standard deviation.
15. _____ is the process of combining data from different sources into a single, unified view.
- (a) Data Reduction. (b) Data transformation.
(c) Data integration. (d) Data Discretization.

(15 × 1/5 = 3 weightage)

Part B (Very Short Answer Questions)

Answer any five questions.

Each question carries 1 weightage.

16. What is called absolute reference ?
17. Why is big data important for companies ?
18. What is variance used for ?
19. Define Data reduction.
20. What is the primary purpose of RStudio ?
21. What does a Doughnut Chart show ?
22. What are some common Python commands ?
23. What is Forecasting ?

(5 × 1 = 5 weightage)

Part C (Short Answer Questions)

*Answer any seven questions.
Each question carries 2 weightage.*

24. What are the prerequisites for Data Science ?
25. What is the importance of Data Visualization ?
26. State some of the key advantages of Python as a computing software.
27. Write a short note on Datafication and its relevance in the modern business world.
28. Describe in detail how one can construct bargraphs in R.
29. Write a short note on Data discretization.
30. How can one perform transformations in Microsoft excel ?
31. How Importing packages in R can be done ?
32. What does a contingency table measure ?
33. How can one prepare a Histogram using python ?

(7 × 2 = 14 weightage)

Part D (Essay Questions)

*Answer any two questions.
Each question carries 4 weightage.*

34. Explain in detail the steps involved while conducting Principal Component Analysis.
35. Explain the various aspects one has to take care while doing regression analysis which make it as a valid model.
36. Explain the various ways to Display Images Using Python.
37. Explain the Accessing Records and variance in R using an example.

(2 × 4 = 8 weightage)