



Unit 5 - Unit V : Non-parametric statistical methods & Time series analysis

Course outline

UNIT - I :
Transcendental
Polynomial &
Simultaneous
equations and
Interpolations ()

UNIT - II :
Numerical
differentiation and
Integration ()

UNIT - III :
Numerical
Solutions of ODE
()

UNIT - IV :
Statistical
distributions and
Test of hypothesis
()

Unit V : Non-
parametric
statistical
methods & Time
series analysis ()

Lecture 1 : Advantages
and disadvantages of
Non parametric
methods (week 13)
(unit?
unit=74&lesson=75)

Lecture 2 : Some non-
parametric methods
(week 13) (unit?
unit=74&lesson=76)

Quiz: Assessment – 13
(assessment?
name=83)

Lecture 3 : Sequential
Analysis, Sequential
Probability Ratio test
(week 14) (unit?
unit=74&lesson=77)

Lecture 4 : Sequential
Probability Ratio test

Assessment -- 15

The due date for submitting this assignment has passed.

Due on 2023-07-02, 23:59 IST.

As per our records you have not submitted this assignment.

Time series-II

1) The systematic components of time series which follow regular pattern of variations are called:

1 point

☐ Signal

☐ Noise

☐ Additive model

☐ Multiplicative model

No, the answer is incorrect.

Score: 0

Accepted Answers:

Signal

2) The unsystematic sequence which follows irregular pattern of variations is called:

1 point

☐ Linear

☐ Non linear

☐ Noise

☐ Signal

No, the answer is incorrect.

Score: 0

Accepted Answers:

Noise

3) In time series seasonal variations can occur within a period of:

1 point

☐ Four years

☐ One year

☐ Three years

☐ Nine years

No, the answer is incorrect.

Score: 0

Accepted Answers:

One year

4) Wheat crops badly damaged on account of rains is:

1 point

☐ Cyclical movement

☐ Random movement

☐ secular trend

☐ seasonal movement

No, the answer is incorrect.

Score: 0

Accepted Answers:

Random movement

5) Indicate which of the following an example of seasonal variations is

1 point

☐ Death rate decreased due to advance in science

☐ Sale of umbrella during rainy days

☐ Recovery in business

☐ Sudden causes by wars

No, the answer is incorrect.

Score: 0

Accepted Answers:

Sale of umbrella during rainy days

https://online-degree.swayam2.ac.in/sas23_01_d05_s1_cc02/unit?unit=74&assessment=87

1/3

(cont..) (week 14) (unit?
unit=74&lesson=78)

○ Lecture 5 : Time series
analysis – Introduction
(week 14) (unit?
unit=74&lesson=79)

○ Lecture 6 : Time series
Analysis - trends(week
14) (unit?
unit=74&lesson=80)

○ Quiz: Assessment - 14
(assessment?
name=90)

○ Lecture 7 : Principal
Component Analysis
(week 15) (unit?
unit=74&lesson=81)

○ Lecture 8 : PCA (cont..) (week 15) (unit?
unit=74&lesson=82)

○ Quiz: Assessment – 15
(assessment?
name=87)

6) A complete cycle consists of a period of:

- ☐ Prosperity and depression
- ☐ Prosperity and recovery
- ☐ Prosperity and recession
- ☐ Recession and recovery

No, the answer is incorrect.

Score: 0

Accepted Answers:

Prosperity and recession

7) A cycle is complete, if it passes through all the

- ☐ Two stages
- ☐ Three stages
- ☐ Four stages
- ☐ Difficult to tell

No, the answer is incorrect.

Score: 0

Accepted Answers:

Four stages

8) In a straight line equation $Y = a + bX$; a is the:

- ☐ X-intercept
- ☐ Slope
- ☐ Y-intercept
- ☐ None of them

No, the answer is incorrect.

Score: 0

Accepted Answers:

Y-intercept

9) In a straight line equation $Y = a + bX$; b is the:

- ☐ Y-intercept
- ☐ Slope
- ☐ X-intercept
- ☐ None of them

No, the answer is incorrect.

Score: 0

Accepted Answers:

Slope

10) In semi averages method, we divide the data into:

- ☐ Two parts
- ☐ Two equal parts
- ☐ Three parts
- ☐ None of them

No, the answer is incorrect.

Score: 0

Accepted Answers:

Two equal parts

11) If a straight line is fitted to the time series, when the movements in time series are:

- ☐ Linear
- ☐ Non-linear
- ☐ Random
- ☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Linear

12) Moving average method is used for measurement of trend when

- ☐ non linear
- ☐ trend is linear
- ☐ no trend
- ☐ trend is different

No, the answer is incorrect.

Score: 0

Accepted Answers:

trend is linear

13) Most frequently used mathematical model of a time series is:

1 point

1 point

1 point

1 point

1 point

1 point

1 point

1 point

- ☐ additive model
- ☐ Cyclic model
- ☐ multiplicative model
- ☐ Irregular model

No, the answer is incorrect.

Score: 0

Accepted Answers:

multiplicative model

14) The method of moving average is used to find the:

1 point

- ☐ trends
- ☐ Measure the seasonal variations
- ☐ Secular trend
- ☐ None of them

No, the answer is incorrect.

Score: 0

Accepted Answers:

Secular trend

15) The multiplicative time series model is:

1 point

- ☐ $Y = T + S + C + I$
- ☐ $Y = a + bX$
- ☐ $Y = a - bX$
- ☐ $Y = T \times S \times C \times I$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$Y = T \times S \times C \times I$



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