

**NPTEL » Introduction to probability and Statistics**

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## Course outline

How does an NPTEL online course work?

### Week 1

- Introduction to probability and Statistics
- Types of data
- Categorical data
- Describing categorical data
- Describing Categorical data (continued)
- Assignment 1 Solution
- Practice: Week 1: Assignment 1 (Non-Graded)
- **Quiz: Week 1: Assignment 1**
- Week 1 Feedback Form: Introduction to probability and Statistics

### Week 2

### Week 3

### Week 4

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## Week 1: Assignment 1

The due date for submitting this assignment has passed.

**Due on 2023-02-08, 23:59 IST.**

Assignment submitted on 2023-02-06, 21:41 IST

1) The following is an example of categorical data

1 point

- ☒ Nominal
- ☐ Interval
- ☐ Ratio

Yes, the answer is correct.

Score: 1

Accepted Answers:

Nominal

2) What type of data does an Aadhar number represent?

1 point

- ☒ Nominal
- ☐ Ordinal
- ☐ Interval
- ☐ Ratio

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Nominal*

3) What type of data does a pin code represent?

1 point

- ☒ Nominal
- ☐ Ordinal
- ☐ Interval
- ☐ Ratio

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Nominal*

4) What type of data does age of a person represent?

1 point

- ☐ Nominal
- ☐ Ordinal
- ☐ Interval
- ☒ Ratio

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Ratio*

5) At the end of a taxi ride you are asked to rate the experience from bad to very good. What type of data is it

1 point

- ☐ Nominal data – cross sectional
- ☒ Ordinal data – Cross sectional
- ☐ Nominal data – time series
- ☐ Ordinal data – time series

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Ordinal data – Cross sectional*

6) Out of 500 seats, the ruling party has 300 seats. Which chart would you use to represent this data?

1 point

- ☒ Pie chart
- ☐ Horizontal bar chart
- ☐ Vertical bar chart
- ☐ Histogram

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Pie chart*

7) Out of 50 people surveyed, 25 strongly agreed to the idea, 20 just agreed while 5 did not agree. What chart would you use to represent this data?

1 point

- ☐ Pie chart
- ☒ bar chart
- ☐ Histogram

Yes, the answer is correct.

Score: 1

Accepted Answers:

*bar chart*

A cricketer who had scored 6000 runs in tests scored 3600 runs on the leg side and 2400 in the off side. You want the viewer to decide whether she is an off side or a leg side player. If you used a pie chart for this data, what are the angles?

Hint: if your answer is  $100^\circ$ , just write 100

8) pie chart angle(3600)\_\_\_\_\_

216

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
(Type: Numeric) 216

1 point

9) pie chart angle(2400)\_\_\_\_\_

144

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
(Type: Numeric) 144

1 point

Out of 180 users, 42 used Internet explorer, 60 used Mozilla Firefox and 78 used Google chrome. What are the angles if you represented this data using a pie chart?

Hint: if your answer is  $100^\circ$ , just write 100

10) Pie chart angle (explorer)\_\_\_\_\_

94.4

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(Type: Numeric) 84

1 point

11) Pie chart angle (Mozilla Firefox )\_\_\_\_\_

133.3

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(Type: Numeric) 120

1 point

12) Pie chart angle (Google chrome)\_\_\_\_\_

162.2

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(Type: Numeric) 156

1 point

13) A student secured 85% in Mathematics, 70% in Science and 75% in English. Which chart would you use to represent this data? (Bar/Pie)

- ☒ Bar Chart  
☐ Pie Chart  
☐ Histogram

Yes, the answer is correct.  
Score: 1

Accepted Answers:  
Bar Chart

1 point

14) Any data outside the boxes in a box plot are outliers and have to be removed

1 point

- ☐ True  
☒ False

Yes, the answer is correct.

Score: 1

Accepted Answers:

False

15) If the median size of 1000 songs is 2MB, will they always fit in a 2GB disc

1 point

- ☐ Yes  
☒ No

Yes, the answer is correct.

Score: 1

Accepted Answers:

No

16) Find the variance of the sample that has age of a 5 students 19, 20, 22, 16, 26?

(Hint: Write your answers up to 2 decimal points)

10

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 13.79,13.81

1 point

17) The marks obtained by 15 students in an exam are 2, 90, 6, 77, 45, 54, 60, 99, 12, 27, 69, 66, 77, 12 and 17. Find the inter quartile range? Hint: Write your answer as whole numbers

50

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Numeric) 65

1 point

The marks obtained by 15 students in an exam are 2, 91, 6, 77, 45, 54, 60, 99, 12, 27, 69, 66, 77, 12 and 17. Find the mean and variance of the sample?

18) mean of the sample \_\_\_\_\_(Hint: Write your answers up to 2 decimal points)

39.8

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 47.55,47.65

1 point

19) variance of the sample \_\_\_\_\_(Hint: Write your answers up to 2 decimal points)

1299.05

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 1068.35,1068.45

1 point

