Shivam kumar,

Graded Assignment 2

1) Which of the following statements is/are incorrect? **1 point**

- [x] To represent the share of a particular category, bar chart is the most appropriate graphical representation.
- [x] The multiplication of the total number of observations and relative frequency of a particular observation should be equal to the frequency of that observation.
- [ ] Mean can be defined for a categorical variable.
- [x] Mode of a categorical variable is the widest slice in a pie chart.

- Bar chart can represent frequency count, it doesnot directly show the share of proportion.
  Pie chart or % bar chart would be more appropriate for representing share.
- Mean is for numerical variable.

Graded Assignment 2

Figure 2.1.G shows the pie chart representation of the weightage distribution of 5 different sub in an exam. Based on this information, answer questions (2) and (3).

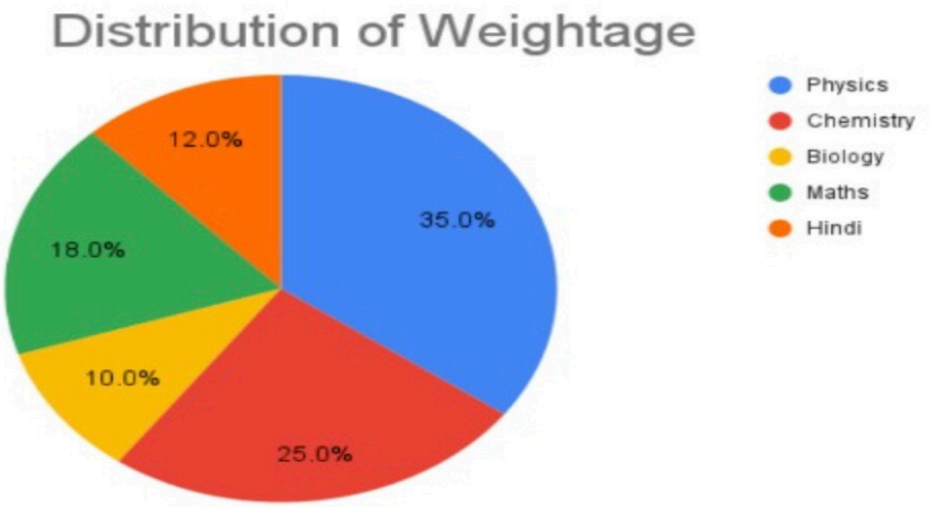


Figure 2.1.G: Weightage distribution of 5 different subjects

2) If the exam is for a total of 500 marks, then what is the aggregate distribution of marks in Physics, Maths and Biology?

315

Physics - 35% = $\frac{35}{100} \times 500 = 175$

Maths - 18% = $\frac{18}{100} \times 500 = 90$

Biology - 10% = $\frac{10}{100} \times 500 = 50$

315

1 point

3) Choose the correct statement(s): 1 point

- [ ] The pie chart is misleading because it does not obey the area principle.
- [ ] The pie chart has round off errors.
- [x] The pie chart is not a misleading graph.
- [x] The slices of pie chart adds up to 100%.

Table 2.1.G represents the distribution of 200 cricket players trained by different cricket academies in Chennai.

Academy	Number of Players
A	a
B	b
C	50
D	d
E	75

Table 2.1.G

If each academy has trained at least one player, then based on the given information, answer questions (4), (5), (6) and (7).

4) What is the combined relative frequency of the academy A, B and D? (Enter the answer correct to 3 decimal places)

0.375

1 point

Relative frequency of C = $\frac{50}{200} = 0.25$

C = $\frac{75}{200} = 0.375$

Combined R.frequency of (A,B,D) = $1 - (0.25 + 0.375)$

$= 0.375$

5) Median of the given data is:

- ○ Academy C
- ○ Academy E
- ○ Academy D
- ○ Median is not defined for the given data
- ● Insufficient data

6) Mode of the given data is:

- ○ Academy C
- ● Academy E
- ○ Academy D
- ○ Mode is not defined for the given data
- ○ Insufficient data

Academy	Number of Players
A	a
B	b
C	50
D	d
E	75

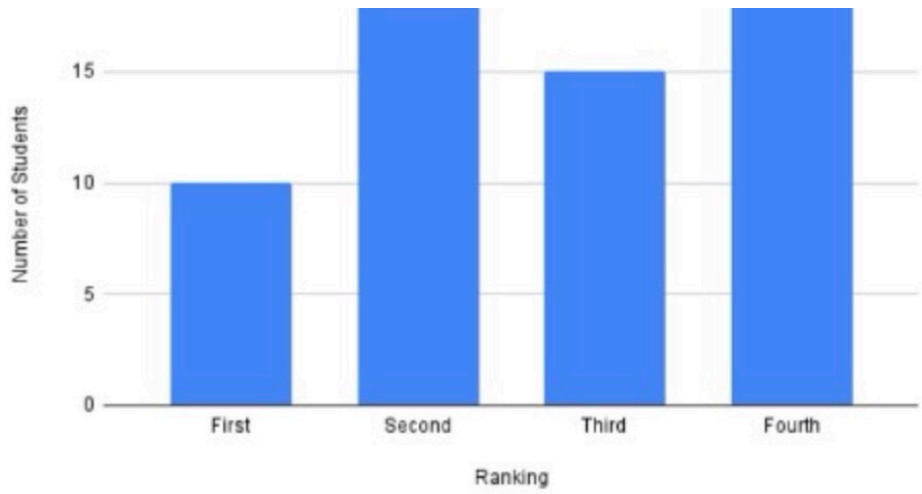
Table 2.1.G

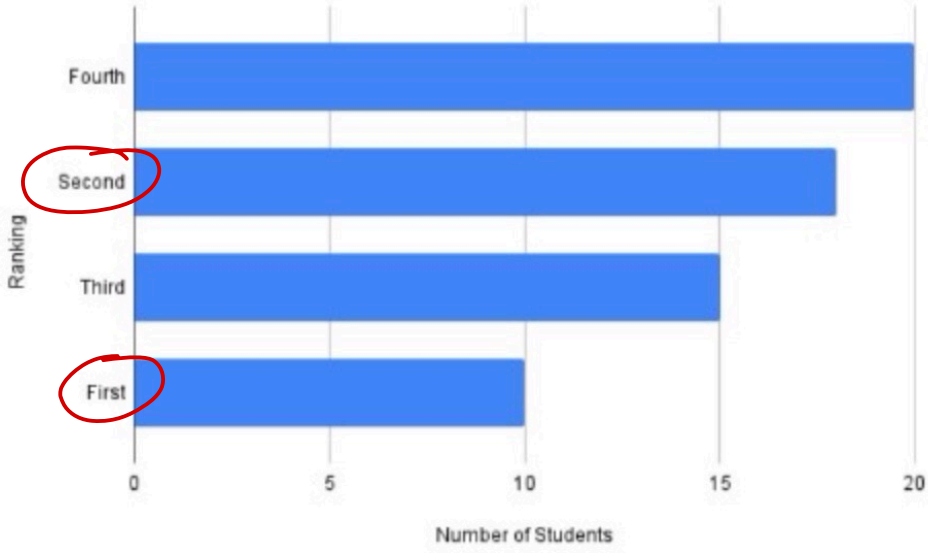
7) Which of the following graphical representations is appropriate for the number of players in each academy for the given data in Table 2.1.G? ***1 point***

- ○ Bar chart
- ○ Pie chart
- ○ Pareto chart
- ● Both bar chart and pareto chart

8) The data of number of students sharing the same rank is collected. Which of the following is/are suitable to represent the collected data? ***1 point***

does not start with 0





not in order

9) Choose the correct statement about categorical data: ***1 poi***

- Categorical data have measurement units.
- Categorical data can take numerical values, but no meaningful mathematical operations can be performed on it.
- Categorical data is quantitative in nature. (qualitative)
- All of the above

The distribution of grades in a Statistics class consisting of 80 students is shown by a pie chart in Figure 2.2.G. Based on the information given, answer the questions (10) and (11)

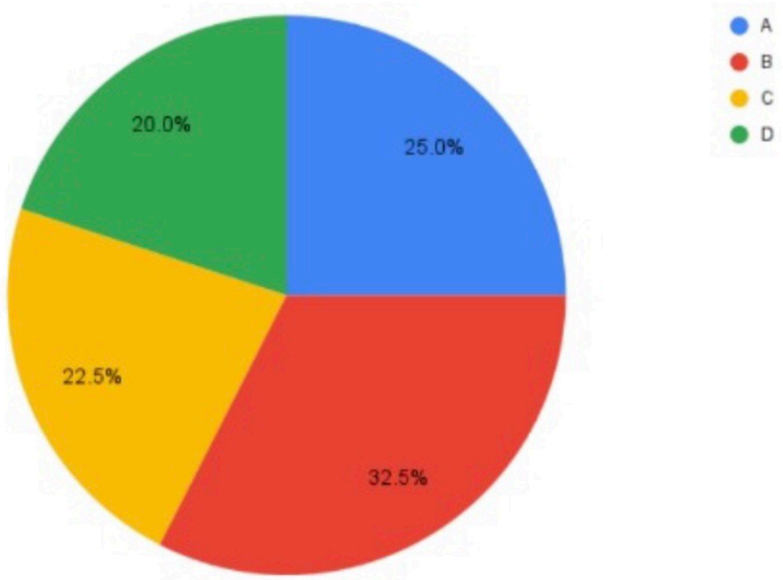


Figure 2.2.G: Distribution of grades in a Statistics class

10) How many students have secured B grade?

B grade - $\frac{32.5}{100} \times 80 = 26$

26

1 point

11) What is the ratio of the students who secured a C grade to the students who secured an A grade?

0.9

1 point

C grade - $\frac{22.5}{100} \times 80 = 18$

A grade - $\frac{25}{100} \times 80 = 20$

$C : A = 18 : 20$

$= 9 : 10$

$= \frac{9}{10}$

$= 0.9$