Strand E – Test (Data and Probability)

Question 1 (Answer all the questions)

1. The subset of population is
   a) Population
   b) Data set
   c) Distribution
   d) Sample

2. Which among the following is the benefit of using simple random sampling?
   a) The results are always representative.
   b) Interviewers can choose respondents freely.
   c) Informants can refuse to participate.
   d) We can calculate the accuracy of the results.

3. The following processes are used during data collection and data organization.

   I. Identify a problem/situation
   II. Collect Data
   III. Generate Samples
   IV. Formulate data collection tool

   a) II, III, IV and I
   b) III, II, I and IV
   c) I, IV, III and II
   d) I, II, III and IV

4. A survey was done among the friends, class, and neighbours to know their preference for a particular brand of cold drink. This is an example of
   a) judgment sampling
   b) cluster sampling
   c) convenience sampling
   d) stratified sampling

5. The findings from a study of training and skill development among employees of a company can be generalised to the population of:
   a) All employees of that company
   b) All employees in that industry
   c) All unskilled employees in that industry
   d) All graduate-level employees

6. The number of times an observation occurs in a data is called as
   a) Range
   b) Raw data
   c) Interval
   d) Frequency

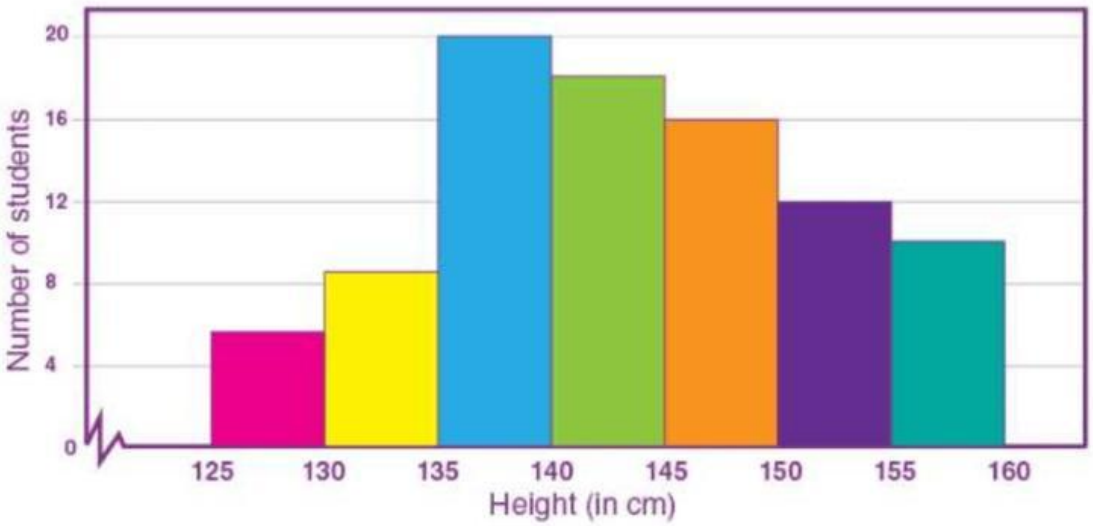
7. Which of the following is correct about mode?
   a) It is central
   b) It occurs most frequently
   c) It lies in between the maximum and minimum observations
   d) It is the average of the two middle terms

8. The stem and leaf plot shows the number of chocolates a shop keeper sold in each week. How many weeks did they sell chocolates?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

   a) 4
   b) 12
   c) 87
   d) The stem and leaf plot does not say

9. The following histogram shows the height of students within a class:



The number of students having a height of less than 140 cm is

a) 14
b) 28
c) 34
d) 51

10. The mean, mode and median from the following data: 5, 7, 9, 10, 12, 12, 15, 16, 18, 20 is

a) Mean =12, mode=12.4, median = 12
b) Mean =12, mode=12 median = 12.4
c) Mean =12.4, mode=12 median = 12
d) None of the above

11. An event in the probability that will never be happened is called as

a) Unsure event
b) Sure event
c) Possible event
d) Impossible event

12. What will be the probability of getting odd numbers if a dice is thrown?

a) $\frac{1}{2}$
b) 2
c) $\frac{4}{2}$
d) $\frac{5}{2}$

13. The probability of getting two tails when two coins are tossed is

a) $\frac{1}{2}$
b) $\frac{1}{3}$
c) $\frac{1}{4}$
d) $\frac{1}{6}$

14. The probability is defined as

a) The total number of possible outcomes in an event
b) The ratio of favourable outcomes to all outcomes
c) The chance of an event happening
d) How certain an event will occur

15. To determine the probability of a coin landing heads up by tossing a coin several times is an example of

a) Theoretical probability
b) Experimental probability
c) Sample probability
d) Outcome probability

Question 2.

1. The following data shows the lengths, in millimetres, of the 25 earthworms.

6	11	18	19	20	23	23	25	25	26
27	27	28	29	32	33	41	42	48	52
54	59	60	77	93					

Answer the following

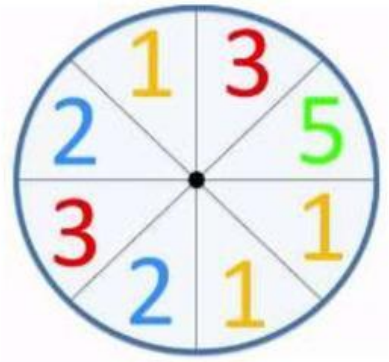
I. Find range, mean, median and mode

Range: Mean: Median: Mode:

II. Draw stem and leaf plot and give one conclusion

III. Draw histogram and give one conclusion

2. If you spin a spinner with 8 equal sections numbered 1 through 8, what is the probability of landing 1?



3. A standard deck of playing cards contains 52 cards. What is the probability of randomly selecting a spade from the deck?