# DKM COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

# **DEPARTMENT OF PSYCHOLOGY (2017-2018)**

# 15 CAPS1A -PSYCHOLOGICAL STATISTICS

#### I B.SC PSYCHOLOGY

#### Unit -I Introduction to statistics

## 2 Marks Questions

- 1. Define statistics
- 2. State any two functions of statistics
- 3. State any two limitations of statistics.
- 4. Discuss the meaning and scope of statistics.
- 5. How statistics is used for research?
- 6. What is use of statistics in business?
- 7. What are different scales of measurement?. Explain in short.
- 8. Define population.
- 9. Name the types of population.
- 10. Define sample. Give an example.
- 11. Name the sampling methods.
- 12. What is random sampling?
- 13. What is non random sampling?
- 14. Explain cluster and quota sampling.
- 15. How probability sample differs from non probability sample?
- 16. What are the difference between population and sample?
- 17. What is interview? Name the types of interview.
- 18. What is discrete variable?
- 19. What is continuous variable?
- 20. Differentiate discrete and continuous variable.
- 21. Give a hint on descriptive and inferential statistics.

## **5 Marks Questions**

- 1. Write a short note on the importance of statistics in various fields.
- 2. Discuss the limitations of statistics.
- 3. Elaborate discrete and continuous variable.
- 4. Explain descriptive and inferential statistics.
- 5. What is population? Write in detail about different types of population.

#### 10 Marks Questions

- 1. What are the different scales of measurement?
- 2. What is sampling? What are the different methods of sampling?
- 3. Define statistics? What are the various functions of statistics?

#### Unit -II Sources of data

#### 2 Marks Sources of data

- 1. What is data?
- 2. What are the different sources of data?
- 3. What is primary data? Give an example.
- 4. What is secondary data? Give an example.
- 5. What is classification?
- 6. Name the types of classification.
- 7. Write a note on tabulation.
- 8. What is frequency?
- 9. Give a short detail on frequency distribution.
- 10. What is class frequency? Give an example.
- 11. Define class interval.
- 12. What is the formula to find class interval?
- 13. How to find mid value in continuous series?
- 14. What is the difference between individual series, discrete and continuous series?
- 15. Write a note on unimodal, bimodal, symmetrical and skewed distribution.
- 16. What is mean by normal distribution.
- 17. Explain kurtosis distribution.

#### **5 Marks Questions**

- 1. Define classification. What are the types of classification?
- 2. Elaborate discrete and continuous variable.
- 3. Discuss normal and kurtosis distribution in detail.

#### 10 Marks Questions

- 1. Define data and enumerate the two sources of data.
- 2. Write a brief note on uinimodal, bimodal, symmetric, skewed distribution.

#### Unit - III Graphical and diagrammatic representation

#### 2 Marks\_Questions

- 1. What is graphical representation?
- 2. Differentiate graph and diagram.
- 3. Define histogram
- 4. Define frequency polygon.
- 5. Define Ogive or frequency curve?
- 6. What is mean by diagrammatic representation?
- 7. Name the different types of diagram.
- 8. What do you mean by pie diagram or angular diagram?
- 9. Name any two limitations of pie diagram

#### **5 Marks Questions**

- 1. What are the different types of one dimensional diagram?
- 2. Explain pie diagram with an example and its limitations.

- 3. Wire in detail on give, uses and its limitations.
- 4. Give a brief note on
  - a. Histogram
  - b. Frequency polygon
  - c. Frequency curve

#### 10 Marks Questions

- 1. Enumerate the types of diagram
- 2. Practice sums on histogram, frequeny polygon, Ogive (Reference: Statistics: Theory and practice by R.S.N. Pillai and Bagavathi)

#### Unit -IV

# Measures of Dispersion (Averages)

# 2 Marks Questions

- 1 Define Arithmetic mean.
- 2 What is the formula to find simple A.M?
- 3 What is the formula to find Weighted A.M (Individual, discrete, continuous)?
- 4 Define Geometric mean
- 5 What is the formula to find G.M (Individual, discrete, continuous)?
- 6 Define Harmonic mean.
- 7 What is the formula to find H.M (Individual, discrete, continuous)?
- 8 What is a median?
- 9 What is the formula to find M (Individual, discrete, continuous)?
- 10 What is a mode? Give an example.
- 11 What is mean by unimodal, bimodal, trimodal and multimodal? Give an example for each.
- 12 What is the Z formula for continuous series?

#### **5 Marks Questions**

- 1. Elaborate the merits, demerits, formulae and uses of Arithmetic mean
- 2. Elaborate the merits, demerits, formulae and uses of geometric mean
- 3. Elaborate the merits, demerits, formulae and uses of harmonic mean
- 4. Elaborate the merits, demerits, formulae and uses of median
- 5. Elaborate the merits, demerits, formulae and uses of mode.

#### 10 Marks Questions

- 1 What are the different types of averages or measures of dispersion? Explain in detail.
- 2 Practice sums on A.M,G.M,H.M,M and Z (Reference: Statistics: Theory and practice by R.S.N. Pillai andBagavathi)

#### Unit -V

# Mean deviation and Standard deviation

#### 2 Marks Questions

- 1 Define range. Give an example.
- 2 What is mean deviation?
- 3 What is standard deviation?
- 4 Differentiate mean deviation from standard deviation.
- 5 What do you mean by linear correlation?
- 6 What is positive linear correlation? Draw the graph of positive linear correlation.
- 7 What is negative linear correlation? Draw the graph of negative linear correlation.
- 8 What is scatter diagram?
- 9 Write the formulae of the following:
  - a. Range
  - b. Quartile deviation.
  - c. Coefficient of range and Quartile deviation
  - d. Mean deviation.
  - e. Standard deviation (Individual, discrete, continuous)
  - f. Coefficient of variance(C.V)
  - g. Karl Pearson correlation.
  - h. Spearman's rank correlation.
- 10. Write the statistical term of media, mode, Karl Pearson correlation, Spearman's rank correlation, mean, standard deviation.

#### **5 Marks Questions**

- 1. Explain scatter diagram and its types.
- 2. What are the types of linear correlation?
- 3. What are the uses of Pearson and Spearman's rank correlation?

## 10 Marks Questions

1. Practice sums on A.M,G.M,H.M,M and Z (Reference: Statistics: Theory and practice by R.S.N. Pillai andBagavathi)

#### **Book Reference:**

Statistics: Theory and practice by R.S.N. Pillai and Bagavathi

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