

# MIZORAM PUBLIC SERVICE COMMISSION

## LIMITED DEPARTMENTAL EXAMINATIONS FOR PROMOTION TO JR. GRADE OF MIZORAM PLANNING, ECONOMIC & STATISTICAL SERVICE (MPE&SS) UNDER GOVERNMENT OF MIZORAM. JUNE -2022

### PAPER - II

Time Allowed : 3 hours

FM : 100 PM : 40

#### SECTION - A (30 Marks)

*All questions carry equal marks of 2 each. Attempt all questions.*

*This Section should be answered only on the **OMR Response Sheet** provided.*

- Which of the following represents data?
  - a single value
  - only two values in a set
  - a group of values in a set
  - none of the above
- Whether classification is done first or tabulation?
  - Classification follows tabulation
  - Classification precedes tabulation
  - Both are done simultaneously
  - No criterion
- Charts and graphs are the presentation of numerical facts by means of :
  - points and lines
  - area and other geometrical forms
  - symbols
  - all the above
- Which of the following statement is not correct?
  - The bars in a histogram touch each other
  - The bar in a column chart touch each other
  - There are bar diagrams which are known as broken bar diagrams
  - Multiple bar diagrams also exist
- If a constant value 50 is subtracted from each observation of a set, the mean of the set is :
  - increased by 50
  - decreased by 50
  - is not affected
  - zero
- Geometric mean of two observations can be calculated only if :
  - both the observations are positive
  - one of the two observations is zero
  - one of them is negative
  - both of them are zero

7. Sampling frame is a termed used for :
- (a) a list of random numbers (b) a list of voters  
(c) a list of sampling units of a population (d) none of the above
8. Probability of drawing a unit at each selection remains same in :
- (a) srswor (b) srswr  
(c) both (a) & (b) (d) none of the above
9. If X and Y are two variates, there can be at most :
- (a) one regression line (b) two regression lines  
(c) three regression lines (d) an infinite number of regression lines
10. In a regression line of Y on X, the variable X is known as :
- (a) independent variable (b) regressor  
(c) explanatory variable (d) all the above
11. A time series is a set of data recorded :
- (a) periodically (b) at time or space intervals  
(c) at successive points of time (d) all the above
12. Index numbers reveal the state of :
- (a) inflation (b) deflation  
(c) both (a) & (b) (d) none of these
13. Index numbers are also known a :
- (a) economic barometers (b) signs and guide posts  
(c) both (a) & (b) (d) none of these
14. What kind of economic recovery is India having as per Economic Survey 2020-2021?
- (a) S-shaped (b) U-shaped  
(c) V-shaped (d) K-shaped
15. If X and Y are independent, the value of regression coefficient  $b_{YX}$  is equal to :
- (a) 0 (b) 1  
(c) 0.5 (d) any positive value

**SECTION - B**  
**(70 Marks)**

*All questions carry equal marks of 7 each. Attempt any 10 (ten) questions.*

*This Section should be answered only on the **Answer Sheet** provided.*

1. Give briefly the characteristics of a good questionnaire or a schedule. Also mention different kinds of statistical investigations.
2. What are the modes of classification? What are different characteristics of classification? Describe it.
3. What do you understand by tabulation? What are the advantages of diagrammatic representation of data?
4. What are the sliding bar charts? Explain in brief. What are the differences between a bar diagram and a rectangular diagram?
5. What are the properties of a good measure of central tendency? And how will you calculate mean in case of a continuous frequency data? Given two values  $x_1$  and  $x_2$ , prove that Arithmetic Mean (A.M.)  $\geq$  Geometric Mean(G.M.)  $\geq$  Harmonic Mean (H.M.).
6. What are the needs of sampling as compared to complete enumeration? In what situations sampling is inevitable?
7. Differentiate between simple random sampling with replacement and without replacement.
8. Give the idea of regression methods. What is a regression model? Delineate the properties of regression coefficients.
9. What purpose is serving by time series analysis? Discuss mathematical models for a time series analysis. What are the essential requirements for proper analysis of a time series?
10. What are the characteristics of an index number? What types of index numbers are usually calculated? Discuss Paasche's price and quantity index number.
11. What are the publications of CSO? What are the functions of NSSO?
12. What are the functions of CSO? What are the benefits of registration of birth and death?

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