

# **The Orissa Subordinate Statistics and Economics Service Rules, 1994**

ODISHA

India

## **The Orissa Subordinate Statistics and Economics Service Rules, 1994**

### **Rule**

### **THE-ORISSA-SUBORDINATE-STATISTICS-AND-ECONOMICS-SERVICE of 1994**

- Published on 1 January 1994
- Commenced on 1 January 1994
- [This is the version of this document from 1 January 1994.]
- [Note: The original publication document is not available and this content could not be verified.]

The Orissa Subordinate Statistics and Economics Service Rules, 1994Published vide Notification Orissa Gazette Extraordinary No. 252/23.2.1994, Notification No. 2027-E.S.

(Estt.)-3-1/94-P./7.2.1994No. 2027-E.S. (Estt.)-III-1/94-P. - In exercise of the powers conferred by the proviso to Article 309 of the Constitution of India the Governor of Orissa is pleased to make the following rules to regulate the Recruitment and Conditions of Service of persons appointed to the Orissa Subordinate Statistics and Economics Services, namely :Chapter-I General

### **1. Short title and commencement.**

(1)These rules may be called the Orissa Subordinate Statistics and Economics Service Rules, 1994.(2)They shall come into force on the date of their publication in the Orissa Gazette.

### **2. Definitions.**

(1)In these rules, unless the context otherwise requires:(a)"Appointing Authority" means the Director of Economics and Statistics;(b)"Director" means the Director of Economics and Statistics and includes an Additional Director;(c)"Directorate" means the Directorate of Economics and Statistics;(d)"Departmental Examination" means the Departmental Examination referred to in the Rule 15 of these rules;(e)"Departmental Promotion Committee" means the Committee constituted under Rule 10;(f)"Government" means the Government of Orissa in Planning and Co-ordination Department;(g)"Recruitment year" means the calendar year;(h)"Scheduled Castes and Scheduled Tribes" means such Castes and such Tribes as notified from time to time by the President of India

under Articles 341 and 342 of the Constitution of India, respectively:(i)"Schedule" means a Schedule attached to these rules;(j)"Service" means the Orissa Subordinate Statistics and Economics Service;(k)"Year" means the recruitment year.(2)Words and expressions used herein but not defined shall have the same meaning as respectively assigned to them in the Orissa Service Code.Chapter-II Composition of the Service

### **3. Constitution and composition of the cadre.**

- The cadre of the service shall comprise of the following categories of posts each constituting a separate grade, namely :(i)Statistical Investigator;(ii)Statistical Assistant; and(iii)Primary Investigator.

### **4. Strength of the service.**

- The service shall consist of such number of permanent and temporary posts of the categories specified in Rule 3 as the Government may, from time to time, by order, decide.Chapter-III Method of Recruitment

### **5. Method of recruitment.**

(1)Seventy five per cent of the vacancies arising in the posts of Statistical Investigator in a particular year shall be filled up by promotion from amongst persons having at least three years service as the Statistical Assistant and twenty-five per cent of the vacancies shall be filled up by direct recruitment from amongst the graduates having Honours in Mathematics, Statistics, Computer Application, Physics, Economics, Applied Economics, Agricultural Economics, Sociology, Economics or having a degree in Commerce with distinction.(2)The posts of Statistical Assistant shall be filled up by promotion from among the persons holding the post of Primary Investigator having at least three years of service as such.(3)(a)The posts of Primary Investigator shall be filled up by direct recruitment from among the candidates having bachelors degree in Arts/ Science having Mathematics, Computer Application, Physics, Economics, Applied Economics, Agricultural Economics, Sociology or Economics or a degree in Commerce.(b)The Statistical Field Surveyor of the Directorate having requisite qualification for the posts of Primary Investigator as required under Clause (a) and having at least five years of service as such on the first day of January of the year of the recruitment and those are within the maximum age of twenty-eight years shall be allowed to appear in the direct recruitment test.

### **6. Determination of vacancies.**

- The Director shall determine the number of vacancies required to be filled up in each category of posts in the Service in the month of January of the year.

## **7. Reservation of vacancies.**

- Notwithstanding anything containing in these rules, vacancies shall be reserved for Scheduled Castes and Scheduled Tribes in accordance with the provisions of the Orissa Reservation of Vacancies in Posts and Services (for Scheduled Castes and Scheduled Tribes) Act, 1975 and rules framed thereunder, and for ex-servicemen, physically handicapped persons, sportsmen and women as may be determined by the Government from time to time.

## **8. Procedure for direct recruitment.**

(1)The number of vacancies in the post of Statistical Investigator and Primary Investigator required to be filled up through direct recruitment shall be filled up by the Director.(2)The Director or any other authority as may be decided by the Government shall conduct the competitive examination in the manner specified in Schedule-I.(3)The Director or any other authority as may be decided by the Government shall prepare a list of candidates arranged in order of merit which shall be equal to the number of vacancies determined under Rule 6.(4)Appointment orders in respect of each grade shall be issued by the appointing authority out of the respective lists and in the order in which the names appear in them.

## **9. Eligibility for direct recruitment.**

- A candidate in order to be eligible for direct recruitment to any post specified in Sub-rule (1) of Rule 8, besides having requisite qualification as specified for respective posts in Rule 5, must-(a)not be less than twenty one years and more than thirty two years of age in the first day of January of the year in which applications are invited;Provided that in case of candidates belonging to Scheduled Castes/Scheduled Tribes, the upper age-limit shall be relaxed by 5 (five) years :Provided further that in case of Physically handicapped persons, Sportsmen, Ex-Servicemen and women, the upper age-limit shall be relaxed as per instructions or rules, as the case may be issued by Government in G.A. Department from time to time.(b)be of good character :(c)not have more than one spouse living, if the candidate is married:Provided that the Government may permit a candidate to enter into or contract, any such marriage if they are satisfied that-(i)such marriage is permissible under the personal law applicable to such Government servant and the other party to the marriage; and(ii)there are other grounds for so doing(d)be able to speak and read and write Oriya and have at least passed a test in Oriya equivalent to Class-VII standard.

## **10. Constitution of Departmental Promotion Committee.**

(1)There shall be a Departmental Promotion Committee to consider the cases of eligible Primary Investigators and Statistical Assistants for promotion to the post of Statistical Assistant and Statistical Investigator respectively.(2)The committee shall consist of the following officials, namely :

(i) Director

... Chairman

- (ii) A representative of the P. and C. Deptt. not below the rank of Deputy Secretary ... Member
- (iii) An Officer not below the rank of Deputy Secretary of another Deptt. to be nominated by the Chairman ... Member
- (iv) Senior-most Joint Director ... Member
- (v) Officer-in-charge of establishment of the Directorate ... Member-Secretary

## **11. Consideration for appointment as Statistical Assistant and Statistical Investigator.**

(1) The Committee shall meet once in a year ordinarily during the month of April to consider the eligible officers and prepare separate lists of officers found suitable for promotion the number of which shall be double the vacancies meant for promotion to the post of Statistical Assistants and Statistical Investigators. The Committee shall for the purpose of preparing the lists of suitable officers consider the case of such Primary Investigators and Statistical Assistants who have : (a) rendered at least three years of continuous service as Primary Investigator or as Statistical Assistant as the case may be on the first day of January of the year in which recruitment is made and have satisfactory record of performance and conduct, and (b) passed required departmental examination. (2) The Orissa Civil Service (Zone of Consideration for Promotion) Rules, 1988 and the Orissa Reservation of Vacancies in Posts and Services (for Scheduled Castes and Scheduled Tribes) Act, 1975 and the Rules framed thereunder shall be followed while considering the case of eligible officers for promotion. (3) The criteria of promotion shall be as specified in the Orissa Civil Services (Criteria of Promotion) Rules, 1992. (4) Appointment orders shall be issued by the appointing authority from the respective lists finalised under Sub-rule (1) and in the order in which their names appear.

## **12. Probation.**

(1) Every person shall, on appointment to a post in the service, be on probation for a period of two years in case of appointment made by direct recruitment, and one year in the case of appointment made by promotion, which shall be calculated from the date of actual joining in the post. (2) The appointing authority may terminate the services of a person appointed on probation in case of a direct recruit or revert him to his previous post in the case of a person appointed by promotion if during or at the end of the period of his probation, such person fails to work satisfactorily or is found to be otherwise unfit to hold the post.

## **13. Confirmation.**

- A person appointed to a post in the Service on successful completion of the probation and subject to availability of substantive vacancy, be confirmed in the post if he is considered suitable in all respect.

## **14. Seniority.**

- The seniority of persons appointed to a particular post in the service against any recruitment year shall be regulated in the following manner, namely : (a) Persons appointed to the post of Statistical Investigator by promotion and by direct recruitment shall be ranked inter se in the order in which their names appear in the respective lists prepared under these rules : Provided that the persons appointed by promotion shall en block be senior to the persons directly recruited in that year. (b) Persons appointed to the posts of Statistical Assistants in a particular year shall rank inter se in the order in which their names appear in the list prepared under these rules. (c) Persons appointed to posts of Primary Investigator shall rank inter se in the order in which their names appear in the list prepared under Sub-rule (3) of Rule-8. Chapter-V Training and Departmental Examination

## **15. Training and Departmental Examination.**

(1) Every person shall on appointment be required to undergo such training as may be decided by the Director from time to time. (2) Every person appointed to the service shall be required to pass the departmental examination specified in Schedule II. (3) If a person appointed to the service fails to pass the training and departmental examination in four successive chances, he shall be liable for reversion to the previous post, if he is a person other than a direct recruit, or shall be discharged from the service if he is a direct recruit : Provided that the Director may after taking into consideration the special circumstances of a case to be recorded in writing, offer a candidate one more chance to pass the departmental examination. Chapter-VI Miscellaneous

## **16. Inclusion in the list confers no right to appointment.**

- The inclusion of a candidate's name in the list shall confer no right to appointment unless the appointing authority is satisfied, after such enquiry, as may be considered necessary that the candidate is suitable in all respects for appointment to the service.

## **17. Relaxation.**

- The Government may, if consider necessary or expedient so to do in the public interest, by order, for reason to be recorded in writing, relax any of the provisions of these rules in respect of any class or category of employees.

## **18. Repeal and Savings.**

- The Orissa Subordinate Statistics and Economics Service Rules, 1986 in force immediately before the commencement of these rules relating to the method of recruitment etc. to the post of Statistical Investigator, Statistical Assistant and Primary Investigator, are hereby repealed : Provided that anything done or any order issued or appointment made or action taken under the rules so repealed shall be deemed to have been done, issued, made or taken under the corresponding provisions of these rules.

## 19. Interpretation.

- If any question arises relating to the interpretation of these rules, it shall be referred to Government in Planning and Co-ordination Department for decision.

I

[See Rule 8 (2)]An objective test shall be conducted for direct recruitment to the post of Statistical Investigator and Primary Investigator of the Service, The test shall comprise written test and viva voce examination. Allocation of marks shall be as follows : (a) 60% of the total marks shall be allotted for the written test, which will be of the same standard as minimum qualification prescribed for the respective categories of posts. (b) 10% of the total mark shall be allotted for the viva voce test. (c) 30% of the total marks shall be allotted for the career starting from the H.S.C. Examination to the Graduate Degree. No weightage shall be given to higher qualification secured by a candidate. (d) The details of written test, its duration, pattern of question etc. shall be worked out by the Director. (e) The Director shall be solely responsible for maintenance of secrecy and custody of the question of the said Examinations. (f) Application for direct recruitment shall be invited by making advertisement in the local Newspaper. (g) There shall be constituted a Selection Board as follows to conduct the recruitment test and to recommend the names of suitable persons, namely:

- |   |                      |
|---|----------------------|
| (i) Director  | ... Chairman         |
| (ii) A representative of the Planning and Co-ordination Department not below the rank of a Deputy Secretary                                   | ... Member           |
| (iii) Senior-most Joint Director of the Directorate   | ... Member           |
| (iv) An officer not below the rank of Deputy Secretary of another Department who would be an outside Member (to be nominated by the Director) | ... Member           |
| (v) Senior -Establishment Officer of the Directorate  | ... Member-Secretary |

II

[See Rule 15]

**1. The non-gazetted statistical incumbents holding the posts of Primary Investigator or equivalent posts shall undertake the Basic Statistical Training Courses and incumbents holding the posts of Statistical Investigator, Statistical Assistant, or equivalent posts shall undertake the Higher Statistical Training Courses in the Statistical Training Institute respectively for a period of ten weeks and sixteen weeks.**

**2. Passing the aforesaid training courses by the respective incumbents will be treated as a pass in the departmental examination.**

**3. The schemes of the aforesaid departmental examinations after completion of the training courses in the S.T.I. shall be as follows :**

(I) For Basic Statistical Training Courses

		Total Marks
Paper-I		
Statistical Method	60 marks	
Mathematics	20 marks	
Sampling	20 marks	
	100 marks	100 marks
Paper-II		
Economics	40 marks	
Economics/Statistics	20 marks	
Official Statistics	40 marks	
	100 marks	100 marks
Paper-III		
Practicals	80 marks	
Records	10 marks	
Viva voce	10 marks	
	100 marks	100 marks
Paper-IV		
Viva voce Test based on all subjects including official discipline procedure and duties/responsibility of Government Servants	50 marks	50 marks
Paper-V		
Project work	50 marks	50 marks

	400 marks	400 marks
(II)For Higher Statistical Training Courses		
Paper I		
Mathematics	40 marks	
Statistical methods	60 marks	
	100 marks	100 marks
Paper-II		
Sampling Technique	35 marks	
Design of Experiments	20 marks	
Quality Control and Demography	25 marks	
Economic Statistics	20 marks	
	100 marks	100 marks
Paper-III		
Economic Principles, Money,Banking Public Finance, International Trade System	60 marks	
Economic Development and Planning	20 marks	
Economic Development of Orissa	20 marks	
	100 marks	100 marks
Paper-IV		
Official Statistics	100 marks	100 marks
Paper-V		
Practical (Written Test)	80 marks	
Record	10 marks	
Viva voce	10 marks	
	100 marks	100 marks
Paper-VI		
Viva vocetest based on allsubjects including official discipline, procedure,duties/responsibility of Government Servants	50 marks	50 marks
Paper-VII		
Project work	50 marks	50 marks
	600 marks	600 marks



**4. One has to secure at least 40% marks in each Individual paper and must secure at least 45% marks in aggregate in order to pass the final examination of the Basic Statistical Training Course and Higher Statistical Training Course which shall be treated as a pass in the respective departmental examinations prescribed for them.**

**5. An incumbent of the aforesaid cadres shall have to pass the aforesaid examinations within four chances at the maximum and shall be allowed to clear back papers if he failed to secure appropriate marks in such papers.**

**6. Apart from holding the examination after completion of the said courses, the aforesaid examinations shall be conducted by the Principal. Statistical Training Institute at least twice in a year. The Principal, S.T.I. shall notify the date of examination at least 15 days ahead so as to Intimate all the employees concerned to appear at the said examinations. Again he shall also notify the result of each departmental examination and intimate the same to all concerned within a month.**

Note. - Necessary examination shall be conducted and the result shall be published as well as communicated to all concerned within a month from the date of completion of the departmental training.

**7. There shall be a Board of Examiners for scrutiny and approval of the result sheets of the said examinations and each Board will consist of the following persons :**

- |         |   |                     |
|---------|---|---------------------|
| (1) (i) | Director, Economics and Statistics, Orissa  | ... Chairman        |
| (ii)    | Senior-most Joint Director of of the D.E.S.   | ... Member          |
| (iii)   | Representative of the P. and C. Department not below the rank of Deputy Secretary to Government | ... Member          |
| (iv)    | Principal, S.T.I.   | ... Member-Convenor |

(2) The Principal, S.T.I. shall be responsible for question setting, evaluation, tabulation and declaration of the result of the aforesaid examinations. (3) After tabulation of the papers the Principal, S.T.I., Member Convenor of the Board of Examiners shall convene the meeting of the Board of Examiners and place the result sheets before the Board for approval. (4) After approval of the result sheets he shall declare the results by way of the result sheet in his office Notice Board and intimate the same to the D.E.S., all Range Deputy Director (Statistics) and D.S.Os. concerned. (5) During the aforesaid training courses the incumbents shall be taught about official discipline, office procedure and duties and responsibility of Government servants by way of imparting at least two lecture hours to the incumbents. However questions on these shall be put to

the incumbents during their viva voce test only. The viva voce Board consisting members not exceeding three shall be constituted by the Principal, S.T.I. very confidentially.

**9. The Incumbents of the aforesaid cadres are to be deputed to the S.T.I. for undertaking the aforesaid training for which the D.E.S. will arrange to send the list of names of such employees to the Principal, S.T.I. in order of their seniority so as to facilitate themselves for promotion to the next higher post or to avail other service benefits.**

Note. - Passing of Basic/High Statistical Training Courses prior to introduction of these rules shall not be considered as clearing the departmental examinations.

Syllabus for the Basic Statistical Training Course

Duration of Course ... 10 Weeks

Working Hours available ... 200 Hours

The course contents for the Basic Statistical Training Course are as follows:

## **01. Supporting Mathematics ... Theory-20 Hours**

(i)Elementary Ideas on Progressions (A.P. and G. P.)(ii)Basic ideas on permutations and combinations(iii)Binomial theorem for Positive Integral Index(iv)Calculus (integral and differential)(v)Logarithms and use of Log tables(vi)Exponential and Logarithms functions

## **02. Statistical:**

02.1Statistical Methods (Theory-45 Hours ± Practical-10 Hours)(i)Meaning and definition of Statistics, Functions of Statistics, Scope of Statistics, Limitations of Statistics, Misuses of Statistics and their remedies.(ii)A Statistical Enquiry, the principal steps in planning of a survey, pre-testing questionnaire and pilot survey, the coverage, the statistical units, different methods of collection of primary and secondary data design of questionnaire, courses of secondary data.(iii)Editing and coding of data, classification seriation and tabulation of data, graphic and diagrammatic representation of data, calculation of statistical derivatives, analysis and interpretation of data, writing of reports and presentation.(iv)Frequency distribution.(v)Measures of central tendency.(vi)Measures of dispersion, skewness and kurtosis.(vii)Elementary ideas on correlation, co-efficient of correlation and scatter diagram.(viii)Elementary ideas on regression and regression lines.(ix)Elementary ideas on probability, laws of addition and multiplication, concepts of binomial, poisson and normal distribution, use of normal probability integral tables.(x)Curve fitting (first and second degree)(xi)Basic ideas on tests of significant (t and f)(xii)Elementary Ideas on association of attributes.2.2Sampling : (Theory 9 Hrs. + Practical 2 Hrs.)(i)Basic terminology connected with sampling, sample vrs. census.(ii)Principal steps in sample surveys, sampling and non-sampling errors(iii)Limitations of sampling, Ideas on simple random, stratified and systematic sampling(iv)Use of random number tables2.3Economic Statistics (Theory 14 Hrs. ± Practical 6

Hrs.)2.3Economic Statistics (Theory 14 Hrs. ± Practical 6 Hrs.)2.3.1. Time Series:(i)Simple ideas on components of time series (secular trend, seasonal variation, cyclical variation, and irregular variation)(ii)Determination of trend by method of moving average and least squares2.3.2. Index Number :(i)Definition of index numbers, construction of Index numbers, price and quantity Index numbers, simple and weighted Index numbers.(ii)Laspyer's index numbers, Pasche's Index numbers, Pasche's Index number and Fisher's ideal index numbers.2.4Vital Statistics : (Theory 3 Hrs. + Practical 01 Hr.)(i)Elementary theories on vital statistics(ii)Population Projections2.5Official Statistics: 40 Hours(i)Statistical System of India and Statistical System of Orissa(ii)Transport Statistics(iii)Educational Statistics(iv)Local Bodies Statistics(v)Medical and Health Statistics(vi)Price Statistics(vii)Co-operation Statistics(viii)Tourism Statistics and Migration(ix)National Income and State income(x)Mining Statistics(xi)Forestry Statistics(xii)Fisheries Statistics(xiii)Labour and Employment Statistics(xiv)Population Census(xv)Agricultural Statistics-Area and Yield Statistics(xvi)Agricultural Census(xvii)Livestock Census(xviii)Veterinary Statistics(xix)Irrigation Statistics(xx)Industrial Statistics in India and Orissa (Large and Medium Industries, Small Scale Industries and Cottage Industries.)(xxi)National Sample Survey(xxii)Other current surveys of Importance at National and State level(xxiii)Application of Remote sensing in crop estimation.

### **03. Computer Technology: (Theory 06 hours ± Practical 02 hours)**

(i)Fundamentals of Computers and its applications

### **04. Economic Principles : (45 Hours)**

(i)Basic Economic Concepts(ii)Concepts of Utility, Demand and Supply(iii)Laws of Consumption(iv)Law of Demand(v)Elasticity of Demand(vi)Basic ideas on Production(vii)Basic ideas on Distribution(viii)Money, Evolution of Money(ix)Types of Money(x)Functions of Money(xi)Banking and Types of Banks(xii)Functions of Commercial Bank(xiii)Functions of Central Bank(xiv)Public Finance(xv)Sources of Public Revenue(xvi)Public Expenditure(xvii)State Budget(xviii)Tax and Characteristic of a Good Tax(xix)Planning-National and State Planning Commission and State Planning Board(xx)Economic Development and Growth(xxi)Economic Development of Orissa

### **05. Official Discipline/procedure Duties, Responsibility of Government Servants : (02 Hours)**

### **06. Library : 05 Hours**

The trainees will utilise the library facilities available in the Institute for their reference during the period.

## **07. Project Work : (15 Hours)**

All the trainees undergoing the Basic Statistical Training Course will be assigned a Topic on different Socio-economic aspects as will be decided by the Principal of the Institute. They will be imparted two classroom lectures on canvassing of schedules in the field and preparation of project report in the Institute. The trainees will make in depth study on the prescribed topic under the guidance of an officer of the Institute and they will be required also to submit a report on the topic to the Principal at the end of the course. The ways of performing the field work and canvassing the schedules will be given credit for assessment of the project work.

## **08. Field Visit : (23 Hours)**

The field visit of the trainees is envisaged to give practical exposure regarding the functioning of different Statistical Cells/Divisions/Units operating in various Government Departments, organisations at district and State level. They will acquaint themselves with various statistical schemes and surveys undertaken by the concerned Offices. They will also go through various schedules used there and learn the techniques of collection, analysis and presentation of related data.

## **09. Examination : (12 Hours)**

At the end of the course, the trainees of the Basic Statistical Training Course will be required to appear at the final examination as mentioned below. One written examination on the basic subjects such as Economics, Statistics, Particals, Mathematics and Official Statistics will be conducted at the end of each course. The written examination will comprise of three papers covering 100 marks each. Apart from this there will be a viva voce test for the trainees carrying 50 marks to test their ability developed during the training period. There is also a topic "Project Work" which the trainees will be conducting in course of training programme. Their Project report will carry 50 marks. Syllabus for the Higher Statistical Training Course Statistical Training Institute Duration of the Course-16 weeks Working hours available-410 hours

## **01. Mathematics (Theory-45 hours)**

### **01. Algebra.**

Basics of Arithmetic and Geometric progressions and simple problems thereof, Basics of quadratic equations, solutions of simultaneous equations (Two and three variables) Basics of Permutations and Combinations, Exponential and logarithmic functions, Binomial theorem logarithms and uses of log tables.

## **01. 2 Numerical Analysis.**

Use of operators E and F Interpolation by Newton's and Lagrange's methods, Inverse Interpolation.

## **01. 3 Probability**

Definition of probability, Addition and Multiplication law of probability, some simple applications of probability theory.

## **01. 4 Calculus.**

Elementary ideas on fundamentals of differential calculus.

## **02. Statistics**

### **02. 1 Statistical Methods (Theory-65 Hours + Practical-17 hours) :**

Meaning and definition of Statistics, Function of Statistics, scope of Statistics, Misuses of Statistics and their remedies. A statistical enquiry, the principal steps in planning of a survey preparing the questionnaire and pilot surveys, the coverage, statistical unit, different methods of collection of primary and secondary data, design of a questionnaire, sources secondary data. Editing and coding of data, classification seriation and tabulation of data, graphic and diagrammatic representation of data, calculation of statistical derivatives, Analysis and Interpretation of data, the writing of report and presentation. Frequency distribution, measures of Central tendency measures of Dispersion, Elementary Ideas on moments, skewness and kurtosis Basic ideas on Binomial, poisson and Normal distribution, standard normal variate, use of normal tables simple correlation and Regression, Rank Correlation, Elementary ideas on partial and multiple correlation and Regression. Curve fitting (first and second degree basics of association of attributes and contingency tables. Elementary Ideas on tests of significance (t, f,  $\chi^2$ ) large sample tests.

### **02. 2. Sampling (Theory-10 Hours + Practical-5 Hours)**

Principles of sampling, selection of samples, Census Vrs. Sample, Type of sampling simple random, stratified, systematic and cluster sampling with estimation of population mean and variance only. How to design a survey, sampling and non-sampling errors and their control, calculation of errors, Organisation of pilot surveys and large scale, sample surveys, use of Random Numbers, ideas on analysis of survey data, and preparation of report.

### **02. 3. Demography (Theory-4 hours + Practical-2 hours)**

Vital rates and ratios, population projection, Analysis of Census data, Growth curves, life table.

## **02. 4. Economic Statistics (Theory-20 hours + Practical-4 hours)**

### **02.**

4.1 Index number Definition of Index number, construction of index numbers, simple and weighted index number. Laspayers, Pawshe's Index Numbers, Fisher's ideal index Numbers, construction of wholesale price index Numbers and cost of living index Numbers.

### **02.**

4.2 Time Series. Components of time series, trend-determination of trend by method of moving average and method of least squares calculation of seasonal variation.

## **03. Applied Economics - (Duration 100 Hours)**

### **03. 1. Economic Principles.**

Basic Economic Theories-Marginal Utility Analysis-Theory of Demand and supply-Characteristics of factors of production, Capital Accumulation.

### **03. 2. Money.**

Evolution of money. Function of money Inflation Causes and effects

### **03. 3. Banking.**

Functions of Commercial Banks, Function of Central Bank

### **03. 4. Public Finance.**

Growth of State activities and expenditure, principles of taxation principles of Public Expenditure, sources of Public Revenue-Public debt.

### **03. 5. International Trade.**

Why trade ? Theory of comparative cost, Balance of Payments.

### **03. 6. Economic System.**

Capitalism-Socialism-Communism-Mixed Economy

### **03. 7. Economic Development and Planning.**

Characteristics of under-developed economy, Economic growth planning in India, Principles of Distribution of Central Assistance, Planning Commission, Finance Commission, National Income-Basic concepts and methods of estimating National Income, Problems of estimation.

### **03. 8. Economic Development of Orissa.**

State Income, Financial resources, industrial policy, Banking system, Policy of Industrialisation, State undertaking, sources of Revenue, State Budget.

## **04. Official Statistics - (Theory 60 hours)**

### **04. 1. Statistical system in India and Orissa, Statistical Organisations and Instructions.**

### **04. 2. Surveys.**

National sample surveys, Crop estimation surveys, Annual Survey of Industries, Agro-economic Surveys, Debt and Investment Surveys, Different types of censuses. 04.3 Population Statistics. Source, Birth and Death rates, composition of population, infant mortality, Fertility, migration, Labour Force, workers and non-workers Unemployment, etc.

### **04. 4. Agriculture Statistics.**

Area and yield statistics, Agriculture census, livestock census, Fishery Statistics, Veterinary Statistics and Irrigation Statistics.

### **04. 5. Industrial Statistics.**

Labour Statistics, Trade Statistics, Transport Statistics, Price statistics, Education and Health Statistics, Local Body Statistics and construction statistics, Co-operative statistics, C.D. Statistics, Sources of Agricultural Statistics.

### **04. 6. Financial Statistics.**

Budget of Union and State Governments, Facts and Contents of Budget, Economic Classification of Budget. National and State Income. Application of Remote Sensing in Crop Estimation.

## **05. Computer Technology (Theory-8 Hours + Practical-2 Hours)**

Fundamental of computers and applications, Elementary ideas on soft ware packages like (LOTUS-1, 2, 3, d-Base-4 and Wordstar)

## **06. Official discipline/Procedure-duties and responsibility of Government Servant (2 hours).**

## **07. Library : (8 hours)**

The trainees will utilise the library facilities available in this Institute for their reference during the period. The teaching staff of the Institute will guide the trainees during this session.

## **08. Project Work : (20 hours)**

All the trainees undergoing the Higher Statistical Training Course will be assigned a topic on different socioeconomic aspects as will be decided by the Principal of the Institute. They will be imparted two class room lectures on canvassing of the schedules in the field and preparation of project report. The trainees will make in depth study on the prescribed topic under the guidance of an officer of the institute and they will be required to submit a report on the topic to the Principal at the end of the course. The ways of performing the field work and canvassing the schedules in the field will be given credit or assessment of project work.

## **09. Field Visit : (30 Hours)**

The field visit of the trainees is envisaged to give practical exposure regarding the functioning of different statistical cells/Division/units operating in various Government departments/organisation, other Institutions at district and State level. They will acquaint themselves with various Statistical Schemes and Surveys undertaken by the concerned offices. They will also go through various schedules there and learn the techniques of collection, analysis and presentation of related data.

## **10. Examination : (18 Hours)**

At the end of the course, the trainees of Higher Statistical Training Course will be required to appear at the final examination as mentioned below. One written Examination on the basic subjects, such as Economics, Statistics Practical, Mathematics, and Official Statistics, will be conducted at the end of each course. The written examination will comprise of papers carrying 100 marks each. Apart from this there will be a viva voce test for the trainees carrying 50 marks to test their ability developed during the training period. There is also a topic "Project work" which the trainees will be conducting in course of the training programme. Their Project report will carry 50 marks.