

सामाजिक सुरक्षाकोष

विविध सेवा, योजना तथा तथ्यांक समूह, सातौं तह, सहायक निर्देशक पदको खुला प्रतियोगितात्मक लिखित परीक्षाको योजना

पाठ्यक्रमको रूपरेखा: यस पाठ्यक्रमको आधारमा निम्नानुसार दुई चरणमा परीक्षा लिइने छ :

प्रथम चरण:- लिखित परीक्षा पूर्णाङ्क :- २००

द्वितीय चरण:- अन्तर्वार्ता पूर्णाङ्क :- ३०

प्रथम चरण:- लिखित परीक्षा योजना (Written Examination Scheme)

पत्र	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या× अङ्क	समय
प्रथम	तथ्याङ्कशास्त्र	१००	४०	वस्तुगत बहुवैकल्पिक (MCQs)	५० × २ अङ्क = १००	४५ मिनेट
द्वितीय	तथ्याङ्कशास्त्र र अन्य	१००	४०	विषयगत (Subjective)	८ × १० = ८० १ × २० = २०	३ घण्टा

द्वितीय चरण

विषय	पूर्णाङ्क	परीक्षा प्रणाली	समय
व्यक्तिगत अन्तर्वार्ता	३०	मौखिक	-

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ ।
- पाठ्यक्रमको प्रथम र द्वितीयपत्रको अर्न्तनिहित विषयवस्तु फरक फरक हुनेछन ।
- प्रथम र द्वितीयपत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- वस्तुगत बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा क्याल्कुलेटर (Calculator) तथा अन्यउपकरणहरू प्रयोग गर्न पाइने छैन ।
- यस पाठ्यक्रम योजनाअन्तर्गतकापत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भएतापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मितिभन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधनभई हटाईएका वा थप गरी संशोधनभई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झन पर्दछ ।
- प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- यथासम्भव सबै पाठ्यक्रमलाई समेट्ने गरी प्रश्न सोधिनेछ ।
- वस्तुगत बहुउत्तर (Multiple Choice) प्रश्नहरूको उत्तर सही दिएमा प्रत्येक सही उत्तर बापत १ (एक) अङ्क प्रदान गरिनेछ भने गलतउत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अर्थात् ०.२ अङ्क कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टापनि गरिने छैन ।

प्रथम पत्र: तथ्याङ्कशास्त्र

	<u>प्रश्न संख्या</u>
1. Probability and Distribution	2
1.1 Basic properties of probability	
1.2 Addition rule of probability	
1.3 Independent and mutually exclusive events	
1.4 Conditional probability	
1.5 Multiplication rule of probability	
2. Random Variables	6
2.1 Notion of random variable	
2.2 Probability distribution	
2.3 Binomial, Poisson and Normal distribution	
2.4 Mathematical expectation	
2.5 Distribution of independent random variables	
2.6 Notion of likelihood function	
3. Mathematics for Statistics	6
3.1 Rates, Ratios and Proportion	
3.2 Number system	
3.3 Logarithm	
3.4 Principle of least square	
3.5 Rank of a matrix	
3.6 Inverse of a matrix	
3.7 Quadratic forms	
3.8 Eigen values	
4. Descriptive statistics	7
4.1 Measures of central tendency	
4.2 Measures of dispersion	
4.3 Measures of kurtosis	
4.4 Measures of skewness	
4.5 Measures of positional statistics: quartile, quintile, &decile	
5. Correlation and Regression	5
5.1 Simple, partial and rank correlation	
5.2 Multiple correlation and coefficient of determination	
5.3 Simple and multiple regression	
5.4 Measures and tests of goodness of fit in regression	
5.5 Tests for normality in regression	
6. Estimation	2
6.1 Properties of a good estimator	
6.2 Methods of estimation	
6.3 Properties of maximum likelihood estimator	
6.4 Best linear unbiased estimator	
6.5 Interval estimation	
7. Hypothesis testing	2
7.1 Simple and composite hypothesis	

7.2 Type I and type II error	
7.3 Unbiased test	
7.5 z, t, chi-square and F tests	
7.6 p value	
8. Sampling methods and Distributions	3
8.1 Simple random sampling	
8.2 Stratified random sampling	
8.3 Systematic sampling	
8.4 Standard errors	
8.5 Sampling distribution	
8.6 Distribution of sample mean	
9. Time-series Analysis	2
9.1 Trends, and seasonal & cyclical variations	
9.2 Autocorrelation and its test	
9.3 Forecasting	
10. Economics	3
10.1 Endogenous and exogenous variables	
10.2 Absolute and relative change	
10.3 Concept of marginal and elasticity	
10.4 Consumption function, saving, capital formation and capital output ratio	
10.5 Cobb-Douglas production function	
10.6 Gini Coefficients	
11. Data collection and processing activities	2
11.1 Data gathering process	
11.2 Questionnaire design	
11.3 Methods and techniques of data summarization/analysis	
11.4 Errors in surveys and censuses: Control and measurement of errors	
11.5 Quality evaluation of data	
12. National accounts statistics of Nepal	2
12.1 System of National Accounts (SNA) – Importance and uses	
12.2 Macro economic aggregates – Nominal and Real GDP, GNI, Consumption, Saving	
13. Population statistics of Nepal	3
13.1 Major sources of population data	
13.2 Population censuses of Nepal	
13.3 Composition and distribution of population	
13.4 Fertility, Mortality, Migration	
13.5 Population growth and population projection of Nepal	
13.6 Ageing of population	
14. Price and indexes	2
14.1 Wholesale price, retail price, producers price	
14.2 Consumers Price Index (CPI)	

- 14.3 Agricultural Production Index
- 14.4 Manufacturing Production Index

15. Human development and poverty Statistics

3

- 15.1 Human Development Index (HDI) and monitoring Poverty
- 15.2 Sustainable Development Goals
- 15.3 Major sources of poverty statistics
- 15.4 Poverty measurement

पत्र:द्वितीय: तथ्याङ्कशास्त्र र अन्य

Section A : Basic Concept

(20 Mark)

1. Data Collection Processing

- 1.1 Data gathering process
- 1.2 Questionnaire design
- 1.3 Methods and techniques of data summarization/analysis
- 1.4 Errors in surveys and censuses: Control and measurement of errors
- 1.5 Quality evaluation of data
- 1.6 Research methodology

2. Sampling and Probability Distribution

- 2.1 Simple random sampling
- 2.2 Stratified random sampling
- 2.3 Systematic sampling
- 2.4 Cluster sampling
- 2.5 Standard errors
- 2.6 Sampling distribution
- 2.7 Distribution of sample mean
- 2.8 Student's t and chi-square distribution

3. Statistical System of Nepal

- 3.1 National Statistical system
- 3.2 Major statistical agencies
 - 3.2.1 Central Bureau of Statistics and its role as a central statistical agency
 - 3.2.2 Ministries and other government agencies related to statistical activities
- 3.3 Statistical functions of Nepal Rastra Bank
- 3.4 Statistical functions of universities and non-governmental organizations
- 3.5 Current Statistical act and statistical regulations ,2041(B.S)

Section – B : Economis Statistics

(30 Marks)

4. Economics

- 4.1 Endogenous and exogenous variables
- 4.2 Absolute and relative change
- 4.3 Concept of marginal and elasticity
- 4.4 Consumption function, saving, capital formation, capital output ratio
- 4.5 Cobb-Douglas production function

5. National Accounts Statistics of Nepal

- 5.1 System of National Accounts (SNA) – Importance and uses
- 5.2 Macroeconomic aggregates – Nominal and Real GDP, GNI, Consumption, Saving

6. Price and Indexes

- 6.1 Wholesale price, retail price, producers price
- 6.2 Consumers Price index (CPI)
- 6.3 Agricultural Production Index
- 6.4 Manufacturing Production Index
- 6.5 Manufacturing Producers Price ndex

7. Public Finance, Money and Banking Statistics

- 7.1 Major sources of data
- 7.2 Revenue statistics
- 7.3 Money and banking statistics
- 7.4 Balance of Payment (BOP)

8. Industry, Trade and Service Statistics of Nepal

- 8.1 Major sources of data
- 8.2 Censuses and surveys of manufacturing establishments
- 8.3 National and international trade statistics
- 8.4 Energy statistics
- 8.5 Environment Statistics
- 8.6 Irrigation and water statistics
- 8.7 Other establishment surveys

9. Agriculture, Fishery and Forestry Statistics of Nepal

- 9.1 Major sources of agricultural statistics
- 9.2 Agricultural censuses
- 9.3 Current agricultural statistics – importance and problems
- 9.4 Food balance sheet
- 9.5 Forestry statistics
- 9.6 Objectives, targets and strategies of Agriculture Perspective Plan (APP)

Section – C : Poverty & Social Statistic

(30 Marks)

- 10. Poverty Statistic
 - 10.1 Poverty measurement in Nepal
 - 10.2 Latest HD status and poverty situation of Nepal
 - 10.3 Sustainable Development Goals (SDGs)
 - 10.4 Major sources of poverty statistic
 - 10.5 Poverty measuring practices in Nepal
 - 10.6 Nepal Living Standard Survey (NLSS)

11. Social Statistics

- 11.1 Major sources of social statistics
- 11.2 Health Indicators
- 11.3 GER, NER, and other educational statistics
- 11.4 NMICS (Nepal Multiple cluster Survey)

12. Labor and Employment

- 12.1 Labor force, employment, underemployment, unemployment
- 12.2 Major sources of labour and employment statistics
- 12.3 Nepal Labour Force Surveys
- 12.4 ISIC, ISOC, NSOC
- 12.5 Child labour

13. Population Statistics of Nepal

- 13.1 Major sources of population data
- 13.2 Population censuses of Nepal
- 13.3 Composition and distribution of population
- 13.4 Fertility, Mortality, Migration
- 13.5 Population growth and population projection
- 13.6 Population policy

Section – D : Fund Mangement& Investment

(20 Marks) 14.

Fund Management

- 14.1 Retirement Fund
- 14.2 Pension Fund
- 14.3 Capital Market
- 14.4 Insurance
- 14.5 Derivative Market
- 14.6 Social Security Management System in Nepal

15. Act and Regulations

- 15.1 योगदानमाआधारित सामाजिक सुरक्षा ऐन २०७४ तथानियमावली ,२०७५
- 15.2 सामाजिक सुरक्षाकोष (कर्मचारी प्रशासन)विनियमावली, २०७५
- 15.3 Labour Act, 2074 and Regulation, 2075
- 15.4 Bonus Act, 2030 and Regulation, 2039

16. Investment

- 16.1 Business Plan
- 16.2 Business Model
- 16.3 Contingent Liabilities
- 16.4 Program, Monitoring &Evaluation

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