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| **Name of the Assistant Professor: Dr. Permila** |
| **Class and Section: BA/BSC Vth Sem** |
| **Subject: Statistics** |
| **Paper: Applied Statistics, Numerical Methods & Fundamentals of Computers** |
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| October Week 2Index Number: definition, problems involved in the construction of index numbers, calculation of index numbers-simple aggregate method, weighted aggregates method |
| Week 3Simple average of price relatives, weighted average of price relatives, link relatives, chain indices, value index numbers, price and quantity index numbers, Laspeyre’s, Paasche’s, Marshall-Edgeworth and Fisher’s index numbers  |
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| Week 4Time and factor reversal tests of index numbers, consumer price index number and its uses. Base shifting, splicing and deflating of index numbers |
| November Week 1 Time Series Analysis: Definition, components of time series-trend, seasonal variations, cyclic variations, irregular component, illustration, additive and multiplicative models, determination of trend-graphic method |
| Week 2 Semi-averages method, method of curve fitting by principle of least squares, growth curves and their fitting, moving average method. Analysis of seasonal fluctuations.  |
| Week 3 Construction of seasonal indices using method of simple averages, ratio to trend method, ratio to moving average method and link relative method. |
| Week 4 Demographic Methods: Sources of demographic data-census, register, adhoc survey, hospital records, measurement of mortality, crude death rate, specific death rate, standardized death rates.  |
| DecemberWeek 1 Complete life tables and its main features, assumptions, descriptions and construction of life tables, uses of life tables, Abridged life table using King’s method, stationary and stable population.  |
| Week 2Measurement of fertility-crude birth rate, general fertility rate, specific fertility rate, total fertility rate, measurement of population growth, gross reproduction rate, net reproduction rate. |
| Week 3 Numerical Methods: Difference tables, methods of interpolation, Newton’s formula for forward and backward interpolation with equal intervals |
| Week 4 Lagrange’s method of interpolation, Divided differences, numerical integration, General Quadrature formula for equidistant ordinates, Trapezoidal rule, Simpson’s one-third and three-eight formula.  |
| Week 5 Basic of Computer: Introduction, origin, development, uses and limitation of computers. Types of computers, computer structure, input-unit, CPU, output unit, secondary storage, High level and low level languages, compiler and interpreter.  |
| January Week 1 Computer Arithmetic: Floating point representation of numbers, arithmetic operations with normalized floating point numbers. Number systems- Binary, decimal, octal  |
| Week 2 Hexadecimal number systems and their conversions into each other. Binary arithmetic’s, (Addition, subtraction, multiplication & division).  |
| Week 3 Flow Charts and Algorithm: Concepts of flow chart, algorithm and programming. Flow charts and algorithms for the following: Mean, Standard Deviation,  |
| Week 4 Coefficient of Correlation, Straight line fitting. Trapezoidal rule, Simpson’s 1/3rd and 3/8th rules |
| Week 5 Revision and doubt class |
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| Name of the Assistant/Associate Professor: **Ms. Anju / Dr. Nidhi/Sugandha** |
| Subject: Disaster Management Paper: 17ENV-02 |
| Class: MA Hindi, MA History, MA Geography, M.Sc. Computer Sc. 3rd Sem. |
| **October** |
| Week 1Chapter: |
| Unit-1 Introduction of various Disasters, Disaster Management in India,Causes and phases of Disaster, Types of disaster- natural and manmade disasters |
| Week 2Rapid onset and slow onset disaster, revision and doubts of chapter.Geo-hazard introduction, Nature and responses to Geo-hazard. |
| Week3Trends in weather related activities in our country, Trends in climatology, Meteorology and hydrology |
| Week 4Assignments : Test of Unit 1 |
| **NOVEMBER** |
| Week 1DIWALI BREAK |
| Week 2Seismic activities, changes in coastal zone, coastal erosion, Beach protection, case studies, Introduction of floods and its causes in detail |
| Week 3Flood forecasting, flood Management, IFMIS and discussion of case studies |
| Week 4Control of flooding disasters, water related Hazards: introduction and causes and management |
| **DECEMBER** |
| Week 1Structure and nature of tropical cyclones, case studies and relatedmanagement, Tsunami: Introduction and causes of disasters, structure and case studies |
| Week 2Physical characteristics of tsunami, tsunami prone areas in India and management, Mitigation measures of water related hazards :Tsunami and assignment to students |
| Week 3Introduction of land related hazards, seismic activities, Introduction and causes of Earthquake, and characteristics of ground motion |
| Week 4Various scales of earthquake , magnitude and intensity measurement, Earthquake hazards and risks involved to involved to earthquake |
| Week 5Assignments : Test of Unit 2 |
| **JANUARY** |
| Week1Various management techniques involved in earthquake management and discussion of case studies of earthquake disasters |
| Week 2Volcano: introduction, volcanic landforms, Volcanic eruptions, early warning from satellites. |
| Week 3Risk mitigation in disasters and training of Volcanoes, case studies, Landslides: Introduction, causes and mitigation and management in detail |
| Week4UN draft resolution on strengthing of coordination of humanitarian emergency assistance. |
| Week 5International decade for natural disaster reduction(IDNDR) and doubtsession and revision  |

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| **FEBRUARY** |
| Week 1Policy for disaster reduction, problems of Financing and insurance |
| Week 2Revision, test and assignment. |