

KOLHAN UNIVERSITY

Chaibasa, Jharkhand, India

Syllabus for

Four Year Undergraduate Programme (FYUGP) of

Bachelor of Science in Information Technology (B.Sc. IT)

Semester - 3

With Effect From Academic Year 2022 - 2023

As Per Revised Curriculum and Credit Framework for the FYUGP under the provisions of NEP - 2020

B.Sc.I.T.CourseStructureF.Y.U..P.(Semester -III)

Sem	Paper Code	PaperTitle	L-T-P	Credits	Contact Hours
	AEC-3	Language and Communication Skills:MIL-2,Modern Indian Lang. TRL)		2	
	SEC-3	SkillEnhancementCourse-3		3	
	MDC-3		3		
ш	MN-1B Logical (Theory) Computer		4-0-0	4	60
	MJ-4(Theory)	MJ-4(Theory) Database Management System		3	45
	MJ-5(Theory) Object Oriented Programming through C++		3-0-0	3	45
	MJ(Practical-3)	DBMS and C++ Lab	0-0-2	2	60
		TotalCredits		20	

MN-1B:Logical Organization of Computer					
4 Credits 60 Class Hours Semester III.					

OBJECTIVES:

Describe performance evaluation of computers, computer architecture and organization, computer arithmetic, Memory and CPU design.

Course Outcomes:

After the completion of this course, students will be able to:

- Understand the Truth Table.
- Identify the number of variables and their simplification importance.
- Understand different circuits for the implementation of Boolean equations.
- Describe performance evaluation of computers, computer architecture and organization, computer arithmetic, Memory and CPU design.

Detailed Syllabus:

	Data Representation:(8 Classes)
Unit-1	Data Types, Number System, Complements, Subtraction of Unsigned Numbers, Fixed- Point Representation, Floating-Point Representation, Other Binary Codes, Other Decimal Codes, Error Detection Code.
Unit-2	Digital Logic Circuits:(10 Classes)Digital Computers, Logic Gates, Boolean algebra, Complement of a Function, MapSimplification, Product-of-sum simplification, Combinational Circuits, Half Adder, FullAdder, Flip-Flops.
Unit-3	Digital Components:(12 Classes)Integrated Circuits, Decoders, Encoders, Multiplexers, Registers, Register with parallelload, Shift Registers, Bidirectional Shift register with parallel load,Binary Counters, Binary counter with parallel load
Unit-4	Central Processing Unit:(15 Classes)Introduction, General Register Organization, Stack Organization, Register Stack, Memory Stack, Instruction Formats, Addressing Modes, Data Transfer and Manipulation, Program Control, Program Interrupt, Types of Interrupts, Reduced Instruction Set Computer (RISC).
Unit-5	Memory Organization:(15 Classes)Memory Hierarchy, Main Memory, RAM and ROM Chips, Memory Address Map, Memory Connection to CPU, Auxiliary Memory, Magnetic Disks and Tape, Associative Memory.Hardware Organization, Read/Write Operation, Cache Memory, Associative Mapping, Direct Mapping, Set-Associative Mapping, Virtual Memory, Address Space and Memory Space, Address Mapping Using Pages, Associative Memory Page Table, Page Replacement, Memory Management Hardware.

Text Books:

- Mano M., "Computer System Architecture", Prentice Hall of India, New Delhi, 1995.
- Ram. B., "Computer Fundamentals: Architecture and Organization", 3rdEdition, New Age International Publication, New Delhi, 2000

MJ-4 (Th): Data Base Management System					
3 Credit 45 Class Hours Semester III.					

Objective:

- Provide an introduction to the management of database systems.
- Understand the fundamentals of relational systems including data models, database architectures, and database manipulations.
- To understand how to create a database. To know about the manipulate a database using SQL

Course Outcomes: At the end of the course, students will be able to:

- Design a database for a given set of requirements.
- Use SQL.
- Apply normalization techniques on given database. Improve the database design by normalization.

Detailed Syllabus:

2 etanea B	
TT 1 (4	Databases and Database Users : Introduction, An example, Characteristics of the Database Approach, Advantages of Using DBMS Approach, A Brief History of Database
Unit I	Applications, Components of Database.
5 classes	Database System Concepts and Architecture: Data Models, Schemas, and Instances,
	Three-schema Architecture and Data Independence, Database Languages and Interfaces,
	The Database System Environment, Centralized and Client-Server Architectures.
	Entity-Relationship(ER) Model
Unit 2	Entity Types, Entity Sets, Attributes and Keys, Relationship Types, Relationship Sets,
8 classes	Roles and Structural Constraints, Weak Entity Types, Refining the ER Design for the
	Sample Database, ER Diagrams, Naming Conventions and Design Issues
	Relational Model : Relational Model Concepts, Relational Model Constraints and Relational Database Schemas, Update Operations, Transactions and Dealing with Constraint Violations, Unary Relational Operations: SELECT and PROJECT, Relational Algebra Operations from SET Theory, Binary Relational Operations: JOIN and
Unit 3 10 classes	DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form.
Unit 3 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of
Unit 3 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a
Unit 3 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting
Unit 3 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users.
Unit 3 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple
Unit 3 10 classes Unit 4	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by
Unit 3 10 classes Unit 4 12 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by Clause, Having Clause, Joins, Sub Queries.
Unit 3 10 classes Unit 4 12 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by Clause, Having Clause, Joins, Sub Queries. Transactions and Concurrency Control: Transaction Concept, Transaction State,
Unit 3 10 classes Unit 4 12 classes Unit 5	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by Clause, Having Clause, Joins, Sub Queries. Transactions and Concurrency Control: Transaction Concept, Transaction State, Desirable Properties of Transactions, Concurrent Executions, Serializability,
Unit 3 10 classes Unit 4 12 classes Unit 5 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by Clause, Having Clause, Joins, Sub Queries. Transactions and Concurrency Control: Transaction Concept, Transaction State, Desirable Properties of Transactions, Concurrent Executions, Serializability, Recoverability, Lock-Based Protocols, Timestamp-Based Protocols and Deadlock
Unit 3 10 classes Unit 4 12 classes Unit 5 10 classes	 DIVISION Relational-Database Design: Pitfalls in Relational-Database Design, Functional Dependencies, Decomposition, Desirable Properties of Decomposition, First Normal Form, Second Normal Form, Third normal Form, Boyce-Codd Normal Form, Fourth Normal Form. Structured Query Language (SQL): Introduction, SQL Environment, Classification of SQL Statements, Data Types, Operators, Integrity Constraints, Data Definition–Creating a Database, Creating a Table, Changing a Table Definition, Removing a Table, Granting and Revoking Privileges to Users. Data Manipulation: Inserting, Updating & Deleting Data from database, Simple Queries, More Complex SQL Queries, Aggregate Functions, Order by Clause, Group by Clause, Having Clause, Joins, Sub Queries. Transactions and Concurrency Control: Transaction Concept, Transaction State, Desirable Properties of Transactions, Concurrent Executions, Serializability, Recoverability, Lock-Based Protocols, Timestamp-Based Protocols and Deadlock Handling.

Text Books:

- Abraham Silberschatz, Henry F. Korth, S. Sudharshan, "Database System Concepts", 7th Edition, Tata McGraw Hill, 2019
- 2. Elmasri and Navathe, "Fundamentals of Database Systems", 7th Edition, Addison -Wesley, 2016

MJ-5(Th): Object Oriented Programming through C++				
3Credit	45Class Hours	Semester-III.		

Objectives:

- To learn basic concepts of OOPS.
- Creating C++ programs.
- Understand expressions and control structures.

Course Outcomes:

After the completion of this course, students will be able to:

- Understand properties of OOPS.
- Learn the use of constructor and destructor.
- Understand file management.

Detailed Syllabus:

	Introduction to Object Oriented Programming: Basic concept of OOP, Comparison
	of Procedural Programming and OOP, Benefits of OOP, C++ compilation, Abstraction,
Unit 1	Encapsulation, Inheritance, Polymorphism, Difference between C and C++. Tokens,
10 classes	Keywords, C++ identifiers; Variables and Constants: Integer, character and symbolic
	constants; Dynamic initialization of variables, Reference variables, Basic data types in
	C++, Operators, Types of operators in C++, Precedence and associativity of operators,
	Manipulators.
	Decision and Control Structures
Unit 2	if statement, if-else statement, switch statement, Loop: while, do-while, for; Jump
5classes	statements: break, continue, go to.
	Introduction to Classes and Objects
	Classes in C++, class declaration, declaring objects, Defining Member functions, Inline
Unit 3	member function, Array of objects, Objects as function argument, Static data member
10classes	and member function, Friend function and friend class. Constructors and Destructors
	Default constructor, Parameterized constructor, Copy constructor and its use,
	Destructors, Constraints on constructors and destructors, Dynamic initialization of
	objects.
	Operator Overloading: Arguments and return value; overloading unary and binary
	operators: arithmetic operators, manipulation of strings using operators; Type
Unit 4	conversions. Virtual Functions and Polymorphism, Categorization of polymorphism
10classes	techniques: Compile time polymorphism, Run time polymorphism.
Unit 5	File Handling: File classes, Opening and Closing a file, File modes, Manipulation of
10classes	file pointers, Functions for I/O operations. Arrays, pointers, structures, unions.

Text Books:

- E.Balagurusamy: Object oriented programming with C++
- K.R.Venugopal: Mastering C++
- Bjarne Stroustrup: The C++ programming language.

MJ-3(Pr): PRACTICAL For MJ-4 & MJ-5				
2Credit	30Classes (60 Hours)	Semester III		

List of Programs as Assignments for MJ-4:

- 1. Create a table **Employee** with the following fields: (Employee_Id, First_Name, Last_Name, Hire_Date, Job_Id, Salary, Mgr_Id, Department_Id) Use appropriate data type and perform following task-
 - Add a new field 'Address Char(10)'.
 - Modify the size of Address column to 20.
 - Insert any 5 records into the table.
 - Display the structure of Employee table.
 - List out details of all employees.
 - Remove the field 'Address' from the table.
 - Change the name of the table from Employee to KU_Emp
- Create an Emp table with the following fields: (EmpNo, EmpName, Job, Basic, DA, HRA, PF, GrossPay, NetPay) (Calculate DA as 30% of Basic and HRA as 40% of Basic and PF as 12.5% of Basic)
 - Insert Five Records in the following fields (EmpNo, EmpName, Job, Basic)
 - Calculate DA, HRA, PF, GrossPay (Basic+DA+HRA) and NetPay (GrossPay-PF) of all employees.
 - Display all records.
 - If NetPay is less than <Rs. 10,000 add Rs. 1200 as special allowances.
 - Delete all 'Clerks' having Basic 5000 or less.
- 3. Create a table named Library with appropriate data type of following structure: (Book_id, Title, Author, Subject, Publisher, Quantity, Price, Student_id) Apply following constraints on the field
 - Book_id must be Primary Key
 - Title must be Unique
 - Quantity should be more than 100
 - Price should be between Rs. 10 and Rs. 5000
 - ✤ View all the constraints from the data dictionary
 - Add Foreign Key constraints to Student_id column which references to Student(Student_id). [Create Student(Roll, Name, Book_id(PK)) before adding the Foreign Key constraints]
 - ✤ Describe the structure of the table.
 - ✤ Insert records to verify the constraints.
- 4. Create Teacher table with the following fields(Name, DeptNo, Date_of_joining, DeptName, Location, Salary)
 - Insert five records
 - Give Increment of 25% salary for Mathematics Department .
 - Perform Rollback command
 - Give Increment of 15% salary for Commerce Department
 - Perform commit command

- 5. A company wishes to maintain a database to automate its operations. Company is divided into certain departments and each department consists of employees. The following two tables describes the automation schemas: Dept (deptno, dname, loc) Emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)
 - Create above tables with appropriate data types
 - Insert details of three departments and details of 5 employees.
 - List the employee name and salary, whose experience is greater than 10 years.
 - Display unique jobs from the table.
 - Display employees of department no. 20 and 30 who have salary between 20000 and 30000.
- 6. Consider the table Dept (deptno, dname, loc) Emp (empno, ename, job, mgr, hiredate, sal, comm, deptno) created earlier, write following query:
 - Display the manager who is having maximum number of employees working under him?
 - List the names of employees, who take highest salary in their departments.
 - Create a view Emp_Dept, which contains Employee name, job, salary and department name.

List of Programs as Assignments for MJ-5:

- Write a C++ Program to display Names, Roll No., and grades of 3 students who have appeared in the examination. Declare the class of name, Roll No. and grade. Create an array of class objects. Read and display the contents of the array.
- Write a C++ program to declare Struct. Initialize and display contents of member variables.
- Write a C++ program to declare a class. Declare pointer to class. Initialize and display the contents of the class member.
- Given that an EMPLOYEE class contains following members: data members: Employee number, Employee name, Basic, DA, IT, Net Salary and print data members.
- Write a C++ program to read the data of N employee and compute Net salary of each employee (DA=52% of Basic and Income Tax (IT) =30% of the gross salary).
- Write a C++ to illustrate the concepts of console I/O operations.
- Write a C++ program to use scope resolution operator. Display the various values of the same variables declared at different scope levels.
- Write a C++ program to allocate memory using new operator.
- Write a C++ program to create multilevel inheritance. (Hint: Classes A1, A2, A.
- Write a C++ program to use pointer for both base and derived classes and call the member function. Use Virtual keyword.

AEC-III Language Through Literature - I

SEMESTER- III (2 Credits - 50 marks)

Course Level Learning Outcomes

- To use literature as a medium to teach/learn grammar, reading, spelling, vocabulary, writing mechanics, creative writing and thinking skills
- To strengthen contextual understanding of the language through textsrelevant to specific disciplines and offer scope for imaginative involvement and self-expression
- To stimulate interest in acquiring twenty first century skills
- To engage in self-assessment activities for self- development
- To help absorb the values, ethics and attitudes of life and culture expressed in literature

Course Content Essays

Humanities vs Sciences	S. Radhakrishnan
Wings of Fire (An Extract)	A. P. J. Abdul Kalam
On the Rule of the Road	A. G. Gardiner
The Muse in the Machine	John Thornhill
Facebook Is Making Us Miserable	Daniel Gulati
One World OneCulture	Kenneth J. Pakenham, Jo McEntire, Jessica Williams
Portion Size is the Trick!!	Ranjani Raman

Source Books:

Confluence, Edited by KN Sobha, Cambridge University Press

Semester Examination and distribution of marks:-End Semester Examination (ESE): 50 Marks

Group A

- 1. *Ten* Objective Type Questions $(1 \times 10 = 10)$ [MCQs not to be set]
- 2. *Two* Short Answer Type Questions $(5 \times 2 = 10)$
 - (Two questions to be answered out of a choice of Four)

Group B

Three Long Answer Type Questions $(10 \times 3 = 30)$ (Three questions to be answered out of a choice of Six)

KOLHAN UNIVERSITY, CHAIBASA FYUGP SEMESTER –III UNDER NEP SEC-III (SKILL ENHANCEMENT COURSE) Course Title: MATHEMATICAL & COMPUTATIONAL THINKING AND ANALYSIS

Total Marks: 75 CREDITS: 03 Pass Marks: 30 Total Lecture: 45 Hours

UNIT I: Logic: Introduction, Statement, Truth value of a statement, Negation of a statement, Compound or mixed statements. Logical Connectives and Tautologies, Implications / Conditional statements, Converse statement, Positive statement, Validating statement.

(10 Lecture hours)

UNIT II: Elementary Arithmetic: Number System and Rapid Method of Calculation, Approximation, Decimalisation, Ratio, Proportion. **Advanced Arithmetic:** Percentages, Simple Interest, Compound Interest, Surface areas and volumes.

(10 Lecture hours)

UNIT III: Mathematical Induction: Introduction, Motivation, The Principle of Mathematical Induction, Progression: Elementary idea of A.P., G.P., and H.P.

(10 Lecture hours)

UNIT IV: Statistics: Definition of Statistics, Characteristics of Statistical data, Nature of Statistics, Limitation of Statistics, Collection of data, Diagrammatic presentation of data, Calculation of frequency distribution.

Measures of Central Tendency: Mean, Median, Mode, Quartiles, Deciles and percentiles.

Measures of dispersions: Range, Inter-quartile range, Quartile Deviation, Mean Deviation, Standard Deviation.

Measures of Skewness, Correlation, Probability.

(15 Lecture hours)

Suggested Books:

- 1. "Mathematical and Computational Thinking and Analysis": Dr R. K. Tiwary, Dr. Y. K. Mishra & Dr. B. N. Gupta.
- 2. "Arithmetic": Lalji Prasad. Students' Friends.

JHARKHAND NEP, FYUGP 2022-23 ONWARDS

MAJOR IN SOCIOLOGY



Revised Curriculum and Credit Framework for the Four-Year Undergraduate Programmes (FYUGP). As per Provisions of NEP-2020, implemented from the Academic Year 2022-23 onwards (KU Ref.No.KU/R397/23 dated-14/03/23)

KOLHAN UNIVERSITY, CHAIBASA, JHARKHAND

Revised Courses of Study for Four Year Undergraduate Programme 2022-23, Major in Sociology

w.e.f. 2022-23 Academic Year

Major in Sociology

Revised Draft Syllabus

Kolhan University, Chaibasa, Jharkhand

Jharkhand, NEP, FYUGP 2022-23 onwards							
Table 6: Semester wise Course Code and Credit							
Points for Single Major:							
Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses						
	Code	Papers	Credits	F.M •	P.M •	Internal Exam.F.M.	University Exam.F.M.
Ι	AEC-1	Language and Communication Skills (MIL- 1)(Modern Indian Language including TRL) Hindi(50 Marks)	2	50	20	No Internal Exam	50
	VAC-1	Value added Course-1 Section-A- Understanding India Section-B- Environmental Science	2+2 =4	50 50	20 20	No Internal Exam	50 50
	SEC-1	Skill Enhancement Course-1 Digital Education	3	75	30	No Internal Exam	75
	MDC-1	Multi- disciplinary Course-1 Basic concepts Sociology	3	75	30	No Internal Exam.	75
	MN- 1A	Minor from Discipline-1 Basic concepts Sociology	4	100	40	25	75
	MJ-1	Major paper 1 Introduction of Sociology	4	100	40	25	75

Semester wise Course Code, Paper name and Credit Points

Semester-1 total Credits=20

For all Semesters=160 Credits

Semester-I

Multi-disciplinary Course-1

Course Code- MDC-1

End Sem. University Exam-75

No Internal Examination

Credit-3

Paper Name - Basic Concept in Sociology

Course Objective:-The course will help the students to understand the meaning of basic concept of Sociology and how to realise this.By the end of course the student will be able to conceptualize, contextualise and problematize.

Learning outcome:-Student learn the epistemological basis of different types of knowledge basic Sociological Concept.of Sociology, Relationship of other social science, Society, Community, institutions, AssIt possible through this course to be successfull in various completive examination.

Sociology: Nature, scope and significance and growth of sociology; Relationship with History, Economics, Political Science, Anthropology and psychology.

UNIT-I

Basic concepts: Society, community, Institution, Association, Social Structure, Culture, Status & Role, Norms and Values.

Social Groups & Processes: Definition, Nature and type of groups- Primary secondary, in group-out group

Social institution: Marriage, Family, Economy, Polity Kinship and Religion; Their Functions and features.

UNIT-IV

Full Marks: 75

Pass Marks: 30

(10 Class)

(15 Class)

(05 Class)

(15 Class)

UNIT-III

UNIT-II

Readings:

Ahuja ram (2001): Indian Social System, New Delhi; Rawat Publication.

Ahuja ram (2003): **Society in India,** New Delhi; Rawat Publication.

Bottomore, T.B (1972): **Sociology: A Guide to Problems and Literature,** Bombay: George Allen and Unwin (India).

Fulcher & Scott (2003): **Sociology,** New York: Oxford University Press.

Giddens, Anthony (2005) Sociology, Polity Press.

Harlambos, M. (1998): Sociology: Themes and Perspectives, New Delhi Oxford University Press.

Harlambos & Holborn (2000): Sociology, London: Harper- Collins.

Inkeles, Alex (1987): What is Sociology? New Delhi: Prentice- Hall of India.

Jonson, Harry M. (1995): Sociology: A Systematic Introduction, New Delhi: Allied Piblications.

KOLHAN UNIVERSITY, CHAIBASA

DEPARTMENT OF STATISTICS

Proposed Syllabus for FYUGP, NEP-2020

(Effective from Academic Year-2022-23 onwards)

(Semster-1)

Multi-Disciplinary Course- (MDC)-Introduction to Statistics

Credits: Theory: 03 (Full marks: 75, Pass Marks: 30)

Unit I

Introduction: Definition and scope of Statistics, concepts of statistical population and sample. Scales of measurement -nominal, ordinal, interval and ratio. Variables and attributes, Diagrammatical Representation of Data, Summarization of Data: Frequency Distribution and Graphical Presentation.

Unit II

Measures of Central Tendency: mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, moments, measures of skewness and kurtosis.

Unit III

Bivariatedata:Definition,scatterdiagram,simplecorrelation,rankcorrelation.Fitting of linear and quadratic regression using principle of least squares. Theory of attributesandconsistencyofdata,independenceandassociationofattributes,measuresof associationandcontingencyfor2x2andrxscontingencytables.

References:

1. Gun, A.M., Gupta, M.K. and Dasgupta, B. (2013). Fundamental of Statistics, VolI

, World Press, Kolkata.

- 2. Gun, A.M., Gupta, M.K. and Dasgupta, B. (2011). Fundamental of Statistics, Vol II, World Press, Kolkata.
- 3. Miller, I. and Miller, M. (2006). John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
- 4. Mood, A.M.Graybill, F.A. and Boes, D.C. (2011). Introduction to the Theory of Statistics, 3rd Edn., (Indian Edition), Tata McGraw-Hill Pub. Co. Ltd.