

Part A Introduction			
Program: Certificate	Class: BSc-II Semester	Year: I	Session:2022-23
Subject: Botany			
1	Course Code	SI-BOTA2T	
2	Course Title	Basic Botany	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective	
4	Pre-requisite (if any)	To study this course, a student must have had the subject botany in class/12th/ certificate/diploma.	
5	Course Learning outcomes (CLO)	<ul style="list-style-type: none"> This course will help the student to understand the diversity of plants and evolutionary process in plant kingdoms. It gives an accounts of plant adaptations from aquatic condition to colonize terrestrial habitat. The changes in morphological, anatomical and reproductive structures that propel plant evolution can be investigated. The economic importance and significance of plants in nature will be understood. They will be acquainted with locally prevalent microbial diseases of plants and humans 	
6	Credit Value	2 Credits	
7	Total Marks	Max. Marks: 40+60	Min. Passing Marks:35
Part B- Content of the Course			
Total No. of Lectures- 60Tutorials- 0 Practical =0 (theory 4 hours per week): L-T-P:			
Unit	Topics	No. of Lectures	

I	1Fungi 1.1 General characteristics and cell wall composition. 1.2 Mode of nutrition 1.3 Types of reproduction 1.4 Economic importance 1.5Parasexuality and Mycorrhiza 2.Lichens: Brief knowledge and their significance.	12
II	1Microbes 1.1Brief outline of various types of Microbes 1.2Archaeobacteria, Eubacteria, Cyanobacteria, Mycoplasma, Actinomycetes and Virus. 1.3 Beneficial and harmful roles.	12

Keywords/Tags: History of Botany, Paleobotany, Prokaryotes, Eukaryotes, Algae, Bryophyta, Pteridophyta, Gymnosperms, Fungi , Mycorrhiza, Lichens, Bacteria, Virus

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

1	Oladele Ogunseitan, Microbial Diversity: Form and Function in Prokaryotes, Wiley Blackwell,2008.
2.	Pelczar, M.J et al., Microbiology, Tata McGraw-Hill Co, New Delhi,5th edition, 2001.
3.	Presscott, L. Harley, J. and Klein, D., Microbiology, Tata McGraw- Hill Co. New Delhi,6th edn., 2005.
4.	Fritsch F.E., The Structure & Reproduction of Algae, Vol. I & Vol. 11., CambridgeUniversity Press, Cambridge, U.K. 1945.
5.	Smith, G.M., Cryptogamic Botany, Vol. I: Algae, Fungi, & Lichens, McGraw-Hill Book Co., New York, 1955.
6.	IanMorris,An Introduction to the Algae, Hutchinson, London, 1967.

Part A Introduction			
Program: Certificate	Class: BSc-II Semester	Year: I	Session:2022 -23
Subject : Botany Practical			
1	Course Code	S1-BOTA2P	
2	Course Title	Basic Botany Practical	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective	
4	Pre-requisite (if any)	To study this course, a student must have had the subject of Biology/ Life science/Agriculture in class 12th.	
5	Course Learning outcomes (CLO)	<ul style="list-style-type: none"> • Students will learn to carry out practical work in the laboratory, • Interpreting plant morphology and anatomy of various groups of lower and higher plants. • Students will be able to identify the major groups of microorganisms. 	
6	Credit Value	2	Credits
7	Total Marks	Max. Marks: 40+60	Min. Passing Marks:35
Part B- Content of the Course			
OTotal No. of Practical- 30 HoursTutorials- 00 -Practical (2 hours per week):			
L-T-P:			
Unit	Topics	No. of Practical	
I to V	<ol style="list-style-type: none"> 1. Section cutting of Pteridophytes and Gymnosperms: Stem, root and leaves 2. Specimen study of Pteridophytes and Gymnosperms Cones 3. Study of fungal structures and preparation of temporary mounts of <i>Mucor</i>, <i>Rhizopus</i>, <i>Asperigillus</i>, <i>Yeast</i>, <i>Pencillium</i>, <i>Alternaria</i>, <i>Albugo</i>, <i>Helimenthosporium</i>. 4. Permanent slides of Puccinia on host. 5. Study of various fungal plant diseases 6. Observation of symptoms of virus and bacteria on plants. <p>Gram staining techniques</p>	30	

Keywords/Tags: Microscope, Algae, Bryophyta, Pteridophyta, Gymnosperm Fungi

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

1. Bendre Ashok and Ashok Kumar , A Textbook of Practical Botany, vol. 1, Rastogi Pub., Meerut, 1984.
2. Pandey B.P Modern Practical Botany,., vol. I, S. Chand and Co. Ltd., N. Delhi, 17th edn., 1999.
3. Singh M.P., Chaudhary S.B. and Sahu H. BA Textbook of Practical Botany,Daya Pub. House, N. Delhi, 2005.
4. Shahezad, Aki I Mohd., Practical Botany, Shanti Prakashan, Gwalior, 2016.
5. Elizabeth Margaret and Angela G Practical manual of Botany, vol.1, New Age (Pub.) Ltd., Delhi, 2007.

Suggestive digital platforms web links --

Suggested equivalent online courses: ---

Part A Introduction			
Program- CERTIFICATE	Class: BSc-II Semester	Year: I	Session:2022-23
Subject – Chemistry			
	Course Code	S1-CHEM2T	
	Course Title	Analytical Chemistry	
	Course Type	Elective	
	Pre-requisite (if any)	To study this course students must have had the subject Chemistry in class +2 or equivalent.	
	Course Learning Outcomes (CLO)	By the this course students will learn thefollowing aspects of Chemistry: <ol style="list-style-type: none"> 1. Basic concepts of Mathematics forChemists. 2. Fundamentals of analytical chemistry andsteps involved in analysis. 3. Basic Knowledge of Computer for chemists. 4. Basic Concepts of Chemical equilibrium. 5. Principles of Chromatography and chromatographic techniques. 6. Various techniques of Spectroscopic Analysis. 	
	Credit Value	2	
	Total marks	Maximum Marks: CCE-40 University Exam (UE)-60	Minimum Passing Marks:35

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Part B – Content of the course

Total No. of Lectures-Tutorials-Practical (In hours per week): L-T-P: 90-0-30

Unit	Topic	No. of Lectures
1	<p>Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van's Hoff reaction isotherm. Le-Chatelier's principle and its applications.</p> <p>Keywords/Tags: <i>Chemical Equilibrium, Equilibrium constant, Free Energy, Chemical Potential.</i></p>	10
2	<p>Chromatography: Introduction, Principle and Classification. Mechanism of separation: adsorption, partition & ion-exchange. Development of chromatograms: frontal, elution and displacement methods. Paper Chromatography (ascending, descending and circular), Thin layer Chromatography (TLC) and Column Chromatography (CC), Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC), types of column and column selection, applications, limitations.</p> <p>Principle and Application of:</p> <ul style="list-style-type: none"> ● Flash chromatography, ● Ion-exchange chromatography and ● Chiral chromatography. <p>Keywords/Tags: <i>Chromatography, Ion Exchange, Column Selection, Adsorption.</i></p>	10

3	<p>Spectrum techniques of analysis Basic of absorption spectroscopy: Electromagnetic radiation, Spectral range. Absorption, Absorptivity, Molar Absorptivity, Fundamental Laws of Absorption, Lambert-Beer Law and its limitations.</p> <p>Constitution & working of photometer, spectrometer, colorimeter.</p> <p>Ultraviolet (UV) absorption spectroscopy-</p>	10
4	<p>Presentation and analysis of UV spectra, Types of electronic transitions, Effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, Hyperchromic and hypochromic shifts. UV spectra of conjugated polyenes and enones.</p> <p>Infra-red (IR) absorption spectroscopy- Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, Measurement of IR spectrum, finger print region, characteristic absorption of various functional groups and interpretation of IR spectra of simple organic compounds.</p> <p>Keywords/Tags: <i>Hypsochromic, Hypochromic, Absorption, Spectrum</i></p>	

Part C- Learning resources

Text Books, Reference Books, Other Resources

Text Books

1. Gaur, S., Computer for Chemists, Neel Kamal Prakashan, 2017.
2. Khopkar, S.M. Basic Concept of Analytical Chemistry, New Age, International Publisher, 2009.
3. Kaur H, Analytical Chemistry, Pragati Prakashan (2008).
4. Gupta, Alka L., Analytical Chemistry, Pragati Prakashan (2020).
5. Bahl, A. & Bahl, B.S. Advanced Organic Chemistry, S. Chand, 2010.
6. Kaur H, Instrumental Methods of Chemical Analysis, Pragati Prakashan, 2018.
7. Sharma B.K., Chromatography, Krishna Prakashan, 2019.
8. Sharma Y.R., Elementary Organic Spectroscopy, S Chand, 2013.
9. Singh, DR Saxena, G., Singh, B., Inorganic Chemicals, Shival Aggrawal & Company, Agra.
10. Srivastava, S.S., Gehlot, A.S., Chemistry, Ratan Prakashan Temple, Indore.

11. Soni, PL, Organic Chemistry, Sultan Chand and Sons, Delhi.
12. Singh, R.K.P., Modern Chemistry, Sahitya Bhavan, Agra.
13. Agnihotri, PK, Sahu, D
14. P., Pillai, A., Sahu, M., Yugbodh Chemistry, Yugbodh Publications, Raipur.

Reference Books:

1. Mitra Surbhi, Handbook of Computer Science & IT, Arihant, 2018.
2. Harris, D.C. Quantitative Chemical Analysis, 6th Ed., Freeman (2007).
3. Christian, Gary D; Analytical Chemistry, 6th Ed. John Wiley & Sons, New York, 2004.
4. Barrow, G.M. Physical Chemistry, Tata McGraw-Hill (2007)
5. Atkins' Physical Chemistry, 10th Edition, Oxford University Press 2014.
6. Gurtu J.N. Gurtu A, Advanced Physical Chemistry, Pragati Prakashan, Meerut, ISBN:9789386633347, 9386633345; Edition: IV, 2017.
7. Atkins, P.W. & Paula, J. Physical Chemistry, Oxford Press, 2016.
8. Finar, I.L. Organic Chemistry (Vol. I & II), E.L.B.S.
9. Morrison, R.T. & Boyd, R.N. Organic Chemistry, Pearson, 2010.
10. Banwell, Molecular Spectroscopy, 2017.
11. Silverstien Robert, Spectrometric Identification of Organic Compounds, Wiley, 2014.
12. Dyer J.R., Applications of Absorption Spectroscopy of Organic Compounds, 2009.

Suggested equivalent online courses:

MOOC: <https://www.edx.org/course/basic-analytical-chemistry>

NPTEL: <https://nptel.as.in/courses/104/105/104105084/>

Web sources

1. <https://www.freebookcentre.net/Chemistry/Analytical-Chemistry-Books.html>
2. <https://nptel.springer.com/journal/216>

PRACTICAL			
Program- CERTIFICATE	Class: BSc-II Semester	Year: I	Session: 2022-23
Subject – Chemistry			
1	Course Code	S1-CHEM2P	
	Course Title	Analytical Processes and Techniques	
2	Course Type	Elective	
3	Course Learning Outcomes (CLO)	<p>By the end of this course students will learn the following aspects of Laboratory exercises in Chemistry:</p> <ol style="list-style-type: none"> 1. Concepts and analytical methods in Chemistry. 2. Preparation of solutions of different concentrations. 3. Standardization of the solution. 4. Identification of Organic compounds by chromatographic techniques. 5. Analysis by Spectral Techniques. 	
4	Credit Value	2	

External Assessment		Marks
Experiments to be performed in laboratory		50
1	Quantitative Analysis by Colorimetry <ul style="list-style-type: none">• Verification of Lambert-Beer Law• Determination of concentration of coloured compounds (e.g., CuSO₄, KMnO₄)	10
2	Qualitative Analysis <ul style="list-style-type: none">• Systematic identification of organic compound by qualitative analysis.• Chromatography: Identification by determination of the R_f values of the given organic/ inorganic compounds by paper/thin layer chromatography. <p><i>Keywords/Tags: Analytical, Authentication, Molarity/Normality, Standardization, Colorimetry, Qualitative Analysis</i></p>	10

Part C- Learning resources

Text Books, References Books, OtherResources

References:

1. Skoog, D.A. and Leary, J.J.: Instrumental Methods of Analysis, Saunders College Publications, New York, 1992.
2. Vogel's textbook of quantitative chemical analysis, 7th edition.
3. Goswami A.K., Mehta Anita, Khanam Rehnaa, ORS., UGC Practical Chemistry VOL. I, Pragati Prakashan, 2015.
4. Goyal Sudha, B.Sc. Chemistry Practical, Krishna Publication, 2017.
5. Tandon, M.N., unified Rasayan Vigyan, Shivalal Agarwal & Company, 2018.

Suggestive digital platforms web links:

1. <https://www.youtube.com/watch?v=OAIImRDzuTh8>
2. <http://amrita.olabs.edu.in/?sub=73&brch=8&sim=133&cnt=1>
3. <http://chemcollective.org/vlabs>
4. <http://mas-iiiith.vlabs.ac.in/exp6/Quiz.html>
5. [https://chem/libretexts.org/Ancillary_Materials/Laboratory_Experiments/Wet_Lab_Experiments/General_Chemistry_Labs/Online_Chemistry_Lab_Manual/Chem_9_Experiments/02%3A_Paper_Chromatography_of_Gel_Ink_Pens-\(Experiment\)](https://chem/libretexts.org/Ancillary_Materials/Laboratory_Experiments/Wet_Lab_Experiments/General_Chemistry_Labs/Online_Chemistry_Lab_Manual/Chem_9_Experiments/02%3A_Paper_Chromatography_of_Gel_Ink_Pens-(Experiment))
6. <https://edu.rsc.org/experiment/leaf-chromatography/389/article>
7. <https://edu.rsc.org/experiments/chromatography-of-sweets/455.article>
8. http://swe.mit.edu/outreach/virtual_resources/paper_chromatography.pdf
9. <http://www.chem.latech.edu/~deddy/chem104/104Standard.htm>
10. https://www.chem.purdue.edu/course/chm224/Miscellaneous/Model_report_Expt2-revised_2009.pdf

PART A : Introduction			
Program : Certificate		Class: BSc-II Semester	Year: I
Session:2022- 23			
Subject : Computer Science			
1.	Course Code	S1-COSC2T	
2.	Course Title	Programming Methodology & Data Structure	
3.	Course Type (Core Course/Elective/Generic Elective/Vocational)	Elective	
4.	Pre-Requisite (if any)	To study this course ,a students must have had the subject Physics/Maths in 12 th class .	
5.	Course Learning Outcomes(CLO)	<p>On the Completion of this course ,learners will be able to:</p> <ol style="list-style-type: none"> 1. Develop simple algorithm and flow chart to solve the problem with programming using top down design principles . 2. Writing efficient and well structured computer algorithms/programs . 3. Learn to formulate iterative solutions and array processing algorithms for problems . 4. Use the recursive technique ,pointers and searching methods in programming . 5. Will be familiar with fundamental data structure ,their implementation ; become accustomed to the description of algorithm in both functional and procedural styles . 6. Have knowledge of complexity of basic operations like insert ,delete ,search on these data structure . 7. Posses ability to choose a data structure to suitably model any data used in computer applications . 8. Design programs using various data structure including hash table ,Binary and general search Tree ,heaps ,Graphs etc. 9. Asses efficiency tradeoffs among different data structure implementations. 10. Implement and know the applications of algorithms for searching and sorting etc. 11. Know the contributions of Indian in the field of programming 	

		data structures.	
6.	Credit value	Theory-2 Credits	
7	Total Marks	Max .Marks : 60+40	Min. Passing Marks : 35
Part B:Content Of the Course			
No. of Lectures (in hours per week): 2 Hours per week			
Total No. of Lectures : 60 HRS.			
Module	Topics		No. of Lectures

I	<p>Queue –Definition, operation,array and linked implementations . Circular Queue- insertion and deletion operations ,Dequeue (Double ended Queue) ,priority Queue-Implementation.</p> <p>Trees : Binary Tree Representation –Properties of Binary Tree ,Binary Tree Representation,-Arrayand Linked Representation, Binary Tree Traversal,Threaded Binary Tree.</p> <p>Heap: Definition,Insertion,Deletion.</p>	10
II	<p>Graphs – Graph ADT, Graph Representation Graph Traversals, searching.</p> <p>Hashing - Introduction, Hash tables, Hash functions, Overflow Handling</p> <p>Sorting Methods – Comparison Sorting Methods.</p> <p>Search Tree-Binary Search Tree,Avl Tree –definition and Examples.</p>	10
III	<p>Indian contribution to the field – Innovation in India, Origin of Julia Programming Language, Indian Engineers who designed new programming Languages, open sourselanguages ,Dr. Sanjay Sahni- Computer Scientist- pioneer of Data Structures, other relevant contributors and contributions.</p>	2
<p>Keywords /Tags :Programming, C++,Data Structure, Expressions, Control,File Handling, Arrays, Stack, Queue, Linked List, Tree, Graphs, Structure, Union, Search,Algorithm.</p>		
<p>PART C: Learning Recourses</p>		
<p>Textbooks, References Books, Other Recourses</p>		

PART A : Introduction			
Program : Certificate	Class: BSc-II Semester	Year: I	Session:2022- 23
Subject : Computer Science			
1.	Course Code	S1-COSC2P	
2.	Course Title	Office Tools & Programming MethodologyLab	
<p>Suggested Readings :</p> <ul style="list-style-type: none"> • Lipschutz: Schaun’s outline series Data Structure ,Tata Mcgraw Hill • Problem Solving and Program Design in C,J.R.Hanly and E.B.Koffman ,Pearson.2015 • E.Balaguruswamy,”C++TMH Publication ISBN O-07-462038-X. • HerbertzShield,”C++ the complete References” TMH Publication. • R.Lafore, ‘Object Oriented Programming C++. • N. Dale and C .Weems ,Programming and Problem solving with C++ :brief edition,Jones& Bartlett learnig. • Adam Drozdek,” Data structure and Algorithms in C++”,Third edition Cengage Learning. • SartajSahani, Data Structure ,Algorithms and Applications with C++ ,McGraw Hill. • Robert L. Kruse,” Data Structure and Program Design inC++’,Pearson. • D.S. Malik,Data Structure using C++,Second Edition ,Cengage Learning. • M.A. Weiss ,Data structure and Algorithms Analysis in C,2nd edition ,Pearson. • M.A. Weiss,Data structure and Algorithm Analysis in C,2ndedition,Pearson. <p>Suggested Digital Platforms ,Web links :</p> <ol style="list-style-type: none"> 1. https://www.youtube.com/watch?v=BC1S40yzssA 2. https://www.youtube.com/watch?v=vLnPwxZdW4Y&vl=en 3. https://www.youtube.com/watch?v=Umm1ZQ5ltZw 4. https://www.youtube.com/watch?v=AT141CXuMKI&list=PLdo5W4Nhv31bbkJzrsKfMpo_grxuLI8LU 			
Suggested equivalent online course			
http://nptel.ac.in/courses/106/105/106105151/ http://nptel.ac.in/courses/106/106/106106133/			
Any remarks /Suggestions :Focus of the course /teaching should be on developing ability of the student in analyzing a problem, building the logic and efficient code for the problem .			

3.	Course Type (Core Course/Elective/Generic Elective/Vocational)	Elective	
4.	Pre-Requisite (if any)	To study a student must have had the subject Physics /Maths in 12th Class	
5.	Course Learning Outcomes(CLO)	<p>On the Completion of this course learners will be able-</p> <ol style="list-style-type: none"> 1. Develop simple algorithms and flow Chart to solve a problem with programming using top down design principles. 2. Writing efficient and well structured computer algorithms/programs. 3. Learn to Formulate iterative solutions and array processing algorithms for problems . 4. Use recursive techniques, pointers and searching methods in programming. 5. Possess ability to choose a data Structure to suitably model any data used in computer applications. 6. Implementation of algorithms for searching and sorting . 	
6.	Credit value	Practical -2 Credits	
7	Total Marks	Max .Marks : 60+40	Min. Passing Marks : 35
PART B:Content Of the Course			
No. of Lab Practical's(in hours per week): 2Hrs. Per week			
Total No. of Labs =30 Hours			
Suggested list of Practical's			

	<p>Using a Presentation Tool</p> <ol style="list-style-type: none"> 1. Design a presentation of your institute using auto content wizard, design template and blank presentation. 2. Design a presentation illustrating insertion of pictures, Word Art and Clipart . 3. Design a presentation, learn how to save it in different formats, copying and opening an existing presentation. 4. Design a presentation illustrating insertion of movie, animation and sound. 5. Illustrate use of custom animation and slide transition (using different effects). 6. Design a presentation using charts and tables of the marks obtained in class. <ol style="list-style-type: none"> I. Given a problem statements ,students are required to formulate problem,developflowchart/Algoriyhm,wri te code in C++,execute and test it. Students should be given assignments on following : <ol style="list-style-type: none"> 1. A. To learn elementary technique involving arithmetic operators and mathematical expressions, appropriate use of selection (if, switch, conditional operators)and control structures. B.Learn how to use functions and parameter passing in functions ,writing recursive programs. 2. Write a program to swap the contents of two variables. 3. Write a program for finding the roots of a quadratic education. 4. Write a program to find area of a circle,reactangle,square using switch case. 5. Write a program to check whether a given number is even or odd. 6. Write a program to print table of any number. 7. Write a program to print Fibonacci series. 8. Write a program to find factorial of given number. 9. Write a program to convert decimal (integer) number in to equivalent binary number. 10. Write a program to check given string is palindrome or not. 11. Write a program to perform multiplications of two matrices. 12. Write a program to print digits of entered number in reverse order . 13. Write a program to print sum of two matrices . 14. Write a program to print multiplication of two matrices. 	<p>30 Hours</p>
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	<p>15. Write a program to generate even/odd series from 1 to 100.</p> <p>16. Write a program whether a given number is prime or not.</p> <p>17. Write a program for call by value and call by reference.</p> <p>18. Write a program to generate a series $1+1/1!+2/2!+3/3!+.....+n/n!$.</p> <p>19. Write a program to create a pyramid structure * ** *** ****</p> <p>20. Write a program to create a pyramid structure 1 12 123 1234</p> <p>21. Write a program to check entered number is Armstrong or not.</p> <p>22. Write program for traversing an Array.</p> <p>23. Write a program to input N numbers, add them and find average.</p> <p>24. Write a program to find largest element from an array.</p> <p>25. Write a program for linear search.</p> <p>26. Write a program for binary search.</p> <p>27. Write a program for bubble sort.</p> <p>28. Write a program for selection sort.</p>	
<p>Keyword /Tags: Digital Electronics ,Logic gates ,AND ,OR,NOT ,IC 7486,IC 7400,NAND ,NOR,IC 7483, Circuit , Flip Flop , Demorgan’s Theorem</p>		
<p style="text-align: center;">Part C: Learning Recourses</p>		
<p style="text-align: center;">Textbooks, References Books, Other Recourses</p>		
<p>Suggested Readings :</p> <ul style="list-style-type: none"> • M.Morris Mano, “Computer System Architecture “ PHI • Heuring Jordan ,”Computer System Design & Architecture” (A.W.L.) • William Stalling ,” Computer Organization & Architecture “ , Pearson Education Asia. • V.CarlHamacher ,” Computer Organization “ TMH • Tannenbaun ,”Structured Computer Organization “ PHI. <p>Suggested Digital Platforms ,Web links :</p> <ol style="list-style-type: none"> 1. https://www.youtube.com/watch?v=4TzMyXmzll8M 2. https://nptel.ac.in/course/106/106/106106166/ 3. https://nptel.ac.in/course/106/106/106106134/ 		
<p>Suggested Equivalent online course http://nptel.ac.in/course/106/105/106105163</p>		

Part A- Introduction			
Program: Certificate	Class: BSc-II Semester	Year: I	Session:2022- 23
Subject: Mathematics			
Course Code	S1-MATH2T		
Course Title	Calculus and Differential Equations		
Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective		
Pre-requisite (if any)	To study this course, a student must have had the subject Mathematics in 12 class.		
Course Learning Outcomes (CLO)	The course will enable the students to: <ol style="list-style-type: none"> 1. Sketch curves in a plane using its Mathematical properties in the different coordinate systems of reference. 2. Using the derivatives in Optimization, Social sciences, Physics and Life sciences etc. 		

	3. Formulate the Differential equations for various Mathematical models. 4. Using techniques to solve and analyze various Mathematical models.	
Credit Value	4	
Total Marks	Max. Marks: 60+40	Min. Marks: 35

Part B- Content of the Course		
Total numbers of Lectures(in hours per week): 3 hours per week		
Total Lectures: 90 hours		
Unit	Topics	Numbers of Lectures
1	4.1 Linear Differential Equations 4.1.1 Linear equation 4.1.2 Equations reducible to the linear form 4.1.3 Change of variables 4.2 Exact Differential equations 4.3 First order and higher degree Differential equations 4.3.1 Equations solvable for x, y and p 4.3.2 Equations homogenous in x and y 4.3.3 Clairaut's equation 4.3.4 Singular solutions 4.3.5 Geometrical meaning of Differential equations 4.3.6 Orthogonal trajectories	18
2	5.1 Linear Differential equation with constant coefficients 5.2 Homogeneous linear ordinary Differential equations 5.3 Linear Differential equations of second order 5.4 Transformation of equations by changing the Dependent/Independent variables 5.5 Method of Variation of parameters	18

Keywords/Tags:

Indian Mathematics, Successive Differentiation, Partial Differentiation, Asymptotes, Curvature, Tracing of Curves, Quadrature, Rectification, Linear Differential Equations, Method of Variation of Parameters.

Part C-Learning Resources
Text Books, Reference Books, Other resources

Suggested Readings:

Text Books:

1. Gorakh Prasad: Differential Calculus, Pothishala Pvt. Ltd. Allahabad, 2016.
2. Gorakh Prasad: Integral Calculus, Pothishala Private Lld.. Allahabad, 2015.
3. M. D. Raisinghania: Ordinary and Partial Differential equations. S Chand & Co Ltd., 2017.
4. Gerard G. Emch, R.Sridharan and M. D. Srinivas: Contributions to the History of Indian Mathematics, Hindustan Book Agency, vol. 3, 2005.
5. Madhya Pradesh hindi granth academy books.

Reference Books:

1. N. Piskunov: Differential and Integral Calculus, CBS Publishers,1996.
2. G. F. Simmons: Differential Equations, Tata McGraw Hill, 1972.
3. E. A. Codington: An introduction to ordinary differential Equation, Prentice Hall of India, 1961.
4. D. A. Murray: Introductory Course in Differential Equations, Orient Longman (india), 1967.
5. H. T. H Piaggio: Elementary Treatise on Differential Equations and their Application, C. B.S. Publisher & Distributors Delhi, 1985.
6. Bibhutibhusan Datta and Avadhesh Narayan Singh: History of Hindu Mathematics, Asia Publishing House,1962.

Part A Introduction			
Program Certificate Course		Class: BSc-II Semester	Year: I Session:2 022-23
Subject : Microbiology			
1	Course Code		S1-MBIO2T
2	Course Title		Microbial Techniques
3	Course Type		Elective
4	Pre- requisite (if any)		To Study this course a student must have had the subject
5	Course Learning outcomes (CLO)		After completing this course in Microbiology ,a student shall have understanding of- <ul style="list-style-type: none"> • Recall the basic lab glassware to be used in the laboratory. • Summarize different methods of sterilization and isolation of pure cultures. • Understand the working of different kinds of instruments and microscopes. • Apply serial dilution technique to isolate the bacteria. • Practice different methods to culture bacteria in the laboratory • Illustrate a method to differentiate between gram positive and gram negative bacteria.
6	Credit Value		2
7	Total Marks	Maximum Marks:60+40	Minimum Passing Marks: 35
Part B- Content of the Course			
Total no of Lectures –60 Lectures- Tutorials- practical (in hours per week) L-T-P:4-0-0 Total No. of Lectures: 15			
Unit	Topics		No. of Lectures
1	Sterilization and culture medium 3.1 Physical methods of sterilization: Dry heat, moist heat, radiation, filtration, and incineration. 3.2 Chemical methods of sterilization- Phenol and phenolic compounds, Alcohol, Halogens, and detergents. 3.3 Types of culture media- Natural, synthetic, complex, enriched, and selective. Anaerobic (Trio glycol ate broth, Robertson’s media,) broth culture of aerobic bacteria.		
B.Sc I st Year (II sem)			Wef-2022-23

	<p>Keywords: Physical sterilization, Chemical sterilization, microbial culture media.</p>		
2	<p>Isolation, Cultivation and preservation</p> <p>4.1 Natural microbial population- Pure culture</p> <p>4.2 Isolation of microbial population- From air, water, and soil.</p> <p>4.3 Methods for isolation: Streak plate, pour plate and spread plate. Serial dilution and micromanipulator methods. Cultivation on liquid and solid media, Isolation of micro organisms on potato slice and bread.</p> <p>4.4 Maintenance and preservation for short term and long term.</p> <p>4.5 Cultivation OF Anaerobic bacteria, and accessing non- cultivable microorganisms.</p> <p>Key words: Pure culture, isolation of microbes, preservation of culture.</p>		
Part C-Learning Resources			
Text books, Reference Books, Other resources			
	<p>Suggested Reading:</p> <ol style="list-style-type: none"> 1. Pelzer, M.J., , E.C.S and Krieg, N.R. “Microbiology” Tata McGraw- Hill, New DELHI,(2001) 2. Tortuga G.J, Finke Br, Case “Microbiology”. An Introduction, 9th edition Pearson Education (2008) 3. Willey J.M., Sherwood L.M., Wool verton C.J.,”PRESCOTT’S Microbiology”, 9th edition (2013) 4. Madigan, M.T., Marino, J.M., Dunlap, P.V. AND Clark D.P., “Brock Biology of Microorganisms, 12th edition, Pearson Benjamin Cummings, San Francisco (2009). 5. Sum Bali, Gaeta and Mathura, R.S., “Principles of Microbiology” M.C. Grew Hill edition.(2017) 6. Agatha Narayan, R. and Picnicker, C.K.S., “Text book of microbiology”, 6th edition Oriental Longman Publication, U.S.A (2000). 7. Dubiety, R.C., And Maheshwari, D.K., “Text book of microbiology”. S. Chand & Company Ltd., New Delhi.(2008). 8. Sharma, P.D., “Microbiology”. Kasogi Publications, Meerut. (2014). 9. Singh, R.P., “Applied Microbiology”. Kalian Publishers, New Delhi. (2007) 10 Shimmy, Q.J., “Microbiology”-I”. Kailās Sadden, Bhopal. <p>Suggested equivalent online courses:</p> <ol style="list-style-type: none"> 1. https://www.com.mooc-list.com/course/small-and-mighty-introduction-microbiology-futurelearn 		

2. <https://www.mooc-list.com/course/microbiology-saylororg>
3. <https://www.mooc-list.com/course/bacteria-and-chronic-infections-coursera>
4. <https://www.coursera.org/lecture/bacterial/-infections/1-1-introduction-to-bacteria-by-bioinformaticstician-phd-peder-worning-HZ64m>
5. <https://www.openstax.org/books/microbiology/pages/1-3-types-of-microorganisms>
6. <https://openstax.org/books/microbiology/pages/4-1-prokaryotic-habitats-relationships-and-microbiomes>
7. <https://swayam.gov.in/explorer?searchText=microbiology>

Part A Introduction			
Program Certificate Course		Class: BSc- II Semester	Year: I Session:20 22-23
Subject : Microbiology			
1	Course Code	S1-MBIO2P	
2	Course Title	Microbial Tools and Techniques Practical	
3	Course Type	Elective	
4	Pre- requisite (if any)	To Study this course a student must have had the subject	
5	Course Learning outcomes (CLO)	On completion of this course, learners will be able to understand: <ul style="list-style-type: none"> • Basic Knowledge of glassware, microscopes and different kinds of instruments used in the microbiology laboratory. • Basic media preparation technique, autoclaving, cleaning and sterilization of glassware. • Preparation of liquid and solid culture media. • Isolation of microorganisms by different plating methods. 	
6	Credit Value	2	
7	Total Marks	Maximum Marks:60+40	Minimum Passing Marks: 35
Part B – Content of the Course			
Total No. of Lectures:30			
Lectures – Tutorial – Practical (In hours per week): L-T-P: 0-0-2			
S. No.	Name of the Exercise	No. of Lab Hours	
1.	Isolation of fungi from water, soil and air by serial dilution agar plating method.	3	
2.	Isolation of microorganisms by pour plate method.	3	
3.	Isolation of microorganisms by streak plate method	3	
4.	Isolation of microorganisms by spread plate method.	3	
5.	Any other experiment may be designed on the basis of theoretical aspects.	1	
Keywords: Basic instruments, Culture media, pour plate, streak plate, spread plate.			
Part- C Learning Resources			
Text Books, References, and other Resources Books			
<p>1.Cappuccino ,J and Sherman, N., “Microbiology : A Laboratory Manual “, 9th edition .Pearson Education Limited .(2010).</p> <p>2.Dubey , R.C. and Maheswari, D.K. , “Practical Microbiology” ,S. Chand &Co.Ltd.,New Delhi</p> <p>3.M. Gopool Reddy , M., Reddy m.n. Saigopal , D.V.R. and Mallaiah K.V.,” Laboratory Experiments in Microbiology”, Himaliya Publishing House , Mumbai (2007).</p> <p>4.Aneja , K.R., “ Laboratory Manual of Microbiology and Biotechnology.2:Edition”, Meditech Scientific International .(2018).</p> <p>5.Patel, Rakesh J and Patel Kiran, R., “ Experiments MicrobiologyVol. I and Vol. II” ,. AdityaPrakashan</p>			

Ahmadabad. (2009).

6. Varghese, Naveen and Joy , V,” Microbiology LaboratoryManual “ ED.1, Aromatic and Medicinal Plants Research Station, Odakkali, Ernakulam, Kerala. (2014).

7. Shammi, Q.J. “ Microbiology-Tools and Techniques”, KailashPustaksadan ISBN 978-81-89900-38-0 (In hindi also)

8. Grainger. John , Hurst Janet and Burdass. Dariel , “Basic Practical Microbiology: A Manual”.The Society for General Microbiology.(2001).

Suggested Digital Platform /Web Links:

1. <https://www.mooc-list.com/course/introduction-practical-Microbiology-futurelearn>
2. https://study.com/articles/List_of_Free_Online_Microbiology_Courses_and_Training_Options.html

Part A- Introduction			
Program: Certificate	Class: BSc-II Semester	Year: I	Session:2022-23
Subject: Physics			
Course Code	SI-PHYS2T		
. Course Title	Mechanics and General Properties of Matter		
Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective		
Pre-requisite (if any)	To study this course, a student must have had the subject Physics in 12" class.		
Course Learning Outcomes (CLO)	<ul style="list-style-type: none"> 1. The course would empower the students to develop the idea about the behavior of physical bodies. 2. It will provide the basic concepts related to the motion of all the objects around us in daily life. 3. The students would be able to build foundation to various applied field in science and technology especially in the field of mechanical engineering. 4. The students will acquire the knowledge of basic mathematical methods to solve the various problems in physics. 5. The students will be able to understand the relativistic effect and the relation between energy and mass. 		
Credit Value	2		
Total Marks	Max. Marks: 60+40	Minimum passingMarks:35	

Part B- Content of the Course		
Total numbers of Lectures(in hours):60		
Unit	Topics	Numbers of Lectures
I	<p>Gravitational potential and central forces</p> <p>1. Gravitational potential: 1.1. Conservative and non-conservative force field, Conservation of energy in motion under the conservative and non-conservative forces, Potential energy. 1.2. Conservative force, Conservation of energy, Gravitational potential and gravitational potential energy, Gravitational potential and intensity of gravitational field due to uniform spherical shell and a uniform solid sphere. 1.3. Gravitational self-energy, Gravitational self-energy of a uniform spherical shell and a uniform solid sphere.</p> <p>2 Central forces: 2.1. Motion under Central forces, Conservative ve characteristics of central forces. 2.2. The motion of a two particles system in Central force, Concept of reduced mass, Reduced mass of positronium and hydrogen. 2.3. Motion of particles in an inverse-square central force, Motion of celestial bodies and derivation of Kepler's laws, 2.4. Elastic and inelastic scattering (elementary idea).</p> <p>Keywords/Tags:Conservative force field, Gravitational potential, Gravitational self-energy, Central force, reduced mass, Scattering.</p>	12
II	<p>Relativistic Mechanics and Astrophysics</p> <p>1. Relativistic Mechanics: 1.1. Frame of references, Galilean transformation, and Michelson Morley experiment. 1.2. Postulates of special theory of relativity, Lorentz Transformation, Simultaneity and order of events, Length contraction, Time dilation, Relativistic transformation of velocities, Variation of mass with velocity. 1.3. Mass-energy. Equivalence and its experimental verification.</p> <p>2. Astrophysics: 2.1. Introduction to the Universe, Properties of the Sun, Concept of Astronomical Distance. 2.2. Life cycle of stars, Chandrasekhar Limit, H-R diagram, Red giant star, White dwarf star, Neutron star, Black hole, 2.3. Big Bang Theory (elementary Idea).</p>	12

	Keywords/Tags: Transformation, Mass-energy equivalence, Astronomical distance, Chandrasekhar limit, Black hole.	
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Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

1. Spiegel M. R., "Vector Analysis: Schaum Outline Series", McGraw Hill Education, 2017.
- 2 Mathur D. S., "Mechanics", S. Chand, 2012.
3. Ghatak A. K., Goyal I.C. and Chua S.J., "Mathematical Physics", Laxmi Publications Private Limited, 2017
4. Mathur D. S., "Properties of Matter", Shyam Lal Charitable Trust, New Delhi.
5. Sears and Zeemansky, "University Physics", Pearson Education.

Suggested equivalent online courses:

1. <https://nptel.ac.in/courses/115/103/115103036/> Mathematical Physics by Dr. Saurabh Basu, Department of Physics, Indian Institute of Technology Guwahati
2. <https://nptel.ac.in/courses/115/106/115106090/> Mechanics, Heat, Oscillations and Waves by Prof. V. Balakrishnan, Department of Physics, Indian Institute of Technology, Madras

Any remarks/ suggestions:

Part A- Introduction			
Program: Certificate	Class: BSc-II Semester	Year: I	Session:2022- 23
Subject: Physics			
Course Code		S1-PHYS2P	
. Course Title		Mechanics and General Properties of Matter Lab	
. Course Type Core/Elective/ Generic Elective/Vocational/...		Elective	
Pre-requisite (if any)		To study this course, a student must have had the subject Physics in 12" class.	
Course Learning Outcomes (CLO)		1. The students would acquire basic practical knowledge related to mechanics through the experiments. 2. Students will be familiar with various measurement devices by which they can measure various physical quantities with accuracy. 3. The students will develop the concept related to the mechanics and properties of matter.	
Credit Value		2	
Total Marks		Max. Marks: 60+40	Min passing Marks :35

Part B- Content of the Course
Total numbers of Lectures(in hours):60

Part A Introduction			
Program Certificate Course	Class: BSc-II	Year: I	Session:2022- 23
Sr.No	List of experiments		Number of Practical (in hours)
1	Determination of modulus of rigidity of material of a wire with the help of Maxwell's needle.		
2	Determination of Young's Modulus of a material of a rod using Cantilever method.		
3	Determination of modulus of rigidity of material of a wire with the help of torsional pendulum.		
4	Determination of force constant of a spring.		
5	Determination of Poisson's ratio of rubber.		
6	Determination of surface tension of a liquid by Jaeger's method.		

Part C-Learning Resources
Text Books, Reference Books, Other resources
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1. Prakash I. & Ramakrishna, "A Text Book of Practical Physics", Kitab Mahal, 2011, 11/e. 2. Squires G. L, "Practical Physics", Cambridge University Press, 2015, 4/e. 3. Flint B. L. and Workshop H. T., "Advanced Practical Physics for 2015, students", 4/e Asia Publishing House, 197. 4. Chattopadhyay D. & Rakshit P. C., "An Advanced Course in Practical Physics", New Central Book Agency. <p>Suggestive digital platforms web links</p> <ol style="list-style-type: none"> 1. https://www.vlab.co.in/broad-area-physical-sciences 2. https://storage.aoogleapis.com/unique_courses/online.html

		Semester	
Subject : ZOOLOGY			
1	Course Code		S1-ZOOL2T
2	Course Title		<u>Cell biology, reproductive biology and developmental biology</u>
3	Course Type		<u>ELECTIVE</u>
4	Pre- requisite (if any)		To study this course a student must have had the subject Biology in class 12 th .
5	Course Learning outcomes (CLO)		<p>After completing this course in ZOOLOGY, a student shall have understanding of.</p> <ul style="list-style-type: none"> • <u>Develop deeper understanding of what life is and how it functions at cellular level.</u> • <u>Understand the nature and basic concepts of cell biology, Reproductive and Developmental biology.</u> • <u>Understand structure and functions of cell membrane, and cellular organelles.</u> • <u>Understand the importance of latest reproductive trends, reproductive techniques to be applied for human welfare.</u> • <u>Understand the general patterns and sequential developmental stages during embryogenesis;& understand how the developmental processes lead to establishment of body plan of multicellular organisms.</u> • <u>Understand the the evolutionary development of various animals.</u>
6	Credit Value		<u>2</u>
7	Total Marks	Maximum Marks:60+40	Minimum Passing Marks: 35
Part B- Content of the Course			
<u>Total no of Lectures –60 organisms</u>			
<u>Lectures- Tutorials- practical (in hours per week) L-T-P:4-0-0</u>			
<u>Unit</u>	<u>Topics</u>	<u>No. of Lectures</u>	
I	<p><u>4. Developmental Biology:</u></p> <p><u>4.1 Fertilization</u></p> <p><u>4.2 Embryonic development of frog up to the formation of three layers</u></p> <p><u>4.3 Fate map construction in frog.</u></p> <p><u>4.4 Metamorphosis of Tale pole Larva.</u></p> <p><u>4.5 Partheno genesis.</u></p> <p><u>Keywords: Fertilization, frog embryology, tadpole, metamorphosis, parthenogenesis.</u></p> <hr/>	<u>11</u>	

<p><u>II</u></p>	<p><u>Embryonic Development of Chick:</u> <u>5.1 Structure of hen's egg.</u> <u>5.2 Embryonic development of chick embryo unto the formation primitive streak.</u> <u>5.3 Fate map construction in chick.</u> <u>5.4 Extra embryonic membranes of chick, formation and functions.</u> <u>Keywords/tags: Hens egg, chick embryology, fate map, chick embryo membranes.</u></p>	
<p><u>Part C-Learning Resources</u></p>		
<p><u>Text books, Reference Books, Other resources</u></p>		
	<p><u>Suggested Reading:</u></p> <ol style="list-style-type: none"> 1. <u>Arm gam, "A TEXT BOOK OF EMBRYOLOGY", Sara's publications 2005.</u> 2. <u>Babinski, BI, "an Introduction to Embryology." CEng age learning 2012.</u> 3. <u>De Roberti's, EDP De Roberti's, EMF, "Cell and molecular biology,"8th edition, Williams &Wilkins, Philadelphia, 2006.</u> 4. <u>Gupta, PK, "CELL BIOLOGY, Genetics and evolution", Rastogi publications 2013</u> 5. <u>Heffner, L, "Human reproduction at a glance," BWL Publications, 2013.</u> 6. <u>Larsen, Human Embryology,' Churchill livingstone, 2001.</u> 7. <u>Powar, CB, "CELL BIOLOGY" Himalya publishing House,2010.</u> 8. <u>Rastogi, VB, "Animal Distribution aqnd developmental biology ." KNRNPublication, 2020.</u> 9. <u>Rastogi, VB, " Introduction to Cytology," KNRN Publications, 1988.</u> 10. <u>Sastry, KV, "ENDOCRINOLOGY and Reproductive Biology", rastogi p[ublication 2018</u> 11. <u>VERMA and AGRAWAL, " A text Book of cytology,"S Chand & co. 1999</u> 12. <u>VERMA, PS, AGARWAL, VK "Chordate Embryology,"S. Chand & co.2000.</u> 13. <u>Pardesi, K and Dubey A, Cell & developmental Biology," Akhand publishing house, New Delhi,</u> 14. https://www.academic.oup.com 15. https://www.medicinesplus.gov 16. https://www.ncbi.nlm.nih.gov 17. https://www.zoologylearningpoint.wordpress.com 18. https://zoologyresources.com <p><u>Suggested equivalent online courses:</u></p> <ol style="list-style-type: none"> 8. <u>Sway am online courses</u> https://storage.googleapis.com/uniquecourses/onlinehtml 9. <u>National Digital Library</u> https://ndl.iitkgp.ac.in 10. <u>E- PG Pataskala (MHRD) PORTAL,(HTTPS://EPGP.INFLIBNET.AC.IN)</u> 11. <u>Science Direct Open Access Content</u> https://www.sciencedirect.com/book/9781843342038/openaccess) 	
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Part A Introduction			
PRACTICAL SYLLABUS			
Program Certificate Course	Class: BSc- II Semester	Year: I	Session:2022- 23
Subject: ZOOLOGY			
1	Course Code	S1-ZOOL2P	
2	Course Title	<u>CYTOLOGY, REPRODUCTIVE BIOLOGY & EMBROLOGY</u>	
3	Course Type	<u>ELECTIVE</u>	
4	Pre- requisite (if any)	To Study this course a student must have had the subject	
5	Course Learning outcomes (CLO)	<u>On completion of this course, learners will be able to understand:</u> <ul style="list-style-type: none"> • <u>The different stages of mitotic and meiotic cell division and special types of chromosomes.</u> • <u>Different stages of embryology.</u> • <u>Through squash preparations understand the stage of cell division and structure of polygene chromosomes.</u> • <u>Enhance collaborative learning and communication skills through practical sessions, team work group discussion assignments & projects.</u> 	
6	Credit Value	2	
7	Total Marks	Maximum Marks:60+40	Minimum Passing Marks: 35
Part B – Content of the Course			
Total No. of Lectures:30			
Lectures – Tutorial – Practical (In hours per week): L-T-P: 0-0-2			
Unit	TOPICS	No. of Lab Hours	
1	Squash preparation of Grasshopper testis to understand the stage of Meiosis	9	
2.	Try pan Blue exclusion test of cell viability	3	
3.	Squash preparation of salivary gland chromosomes from Chironomus larva/Drosophila	9	
KEYWORDS: stages of cell division, stages of embryonic development squash preparation.			
Part- C Learning Resources			
Text Books, References, and other Resources Books			
Suggested reading:			
1.	Biffa, MM, Knight J. ‘‘Experiments in practical development biology’’, first edition Cambridge university press,2011		
2.	Chai Tanya, KV’’ Cell & molecular biology: a lab manual’’, PHI, 2013.		
3.	KELLER, LR Evans, JH, KELLER TCS ‘‘experimental developmental biology’’, academic press, 1998		
4.	TIGUNAYAT, MM,’’A manual of practical Zoology; biodiversity cell biology, Genetics& development biology’ ’scientific publishers,2019		
5.	Virtual Labs (https://www.vlab.co.in)		

Part A Introduction

Programme: Certificate Class:B.Com 1st Year IInd-Sem Session 2022-23

Subject	Commerce	
Course Code	C1-COMA1G	
Course Title	Basics Of Business Studies	
Course Type	Elective	
Pre-Requste	Not Required Open For All	
Course Objectives	To impart basic knowledge of the basiiess relevant to business activities.	
Course Learning Outcomes	<p>The Successful completion of this course shall enable the students :</p> <ul style="list-style-type: none"> • The course will be helpful to provide basic knowledge of business. • Student will be capable to understand business ethics to guide corporate sector and feel and perform its responsibilty towards society. • Student will be capable to understand ethical aspect of business, banking system, banking procedure. • Student will be capable to understand practivcal banking insurance system, insurance procedure, stock exchange system, • To help them for employment in related field. 	
Credit Value	4	
Total Marks	Max Marks:60+40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)3

Unit	Topic	Lectures
1	<p>Insurance: origin and development of insurance, meaning, principle and importance of insurance, classification of insurance.</p> <p>Life Insurance: meaning objectives, principles and importance. types of life insurance policy, claim procedutre and settlement.</p> <p>General Insurance: meaning and objectives and importance, general insurance policies: vehicl, health, household goods, commercial premises and goods and another available policies.</p>	12
2	<p>Stock Exchange: historicla background. meaning functions and importance, important termonology related to stock exchange. promary and secondary market, nse, bse, various index and interpretation of fluctuations in it.</p> <p>Mutual Funds: concept, salient features, importance and types, systamatic investment plan(SIP). performance of mutual funds in India.</p>	12
<p>key words/Tags : Business, Ethics, General Insurance, Stock Exchange, Corporate Social Responsibility</p>		

Part C Learning Resources

Suggested Readings:

1. Dr. C.B. Gupta Values & Ethics In Business S.Chand & Sons New Delhi.
2. Dr.C.B. Gupta Business Organization & Management S.Chand & Sons New Delhi
3. Rathi And Agrawal Investmnet & Security Analysis S.Chnad & Sons New Delhi
4. Dr. S.C Saxena & Dr.V.P Agrawal Business Organization And Commnication Sahitya Bhawan Publication ,Agra
5. Dr. Op. Gupta & Dr. Sudhir Kumar Sharma Banking And Insurance Sahitya Bhawan Publication ,Agra
6. Dr. R.L. Nolakha Principles Of Insurance R.B.D. Publication Jaipur.

Suggestive Digital Platforms, Web Links

1. http://cbseacademic.nic.in/web_material/curriculummain20/Sr.secondary/businessstudies.pdf
2. <http://ncert.nic.in/textbook.php?kebs1=0-11>

Part A Introduction

Programme: Certificate Class:B.Com 1 st Year IIInd sem Session 2022-23	
Subject	Commerce
Course Code	C1-COMB2G

Course Title	Fundamental Accounting	
Course Type	Elective	
Pre-Requste	Not Required Open For All (Except The Student Of Commerce)	
Course Objectives	<p>To understand the meaning of accounting, accountanvy,</p> <p>To understand the terms insed in accounting system</p> <p>To know how the accounting system for non profit organization..</p>	
Course Learning Outcomes	<p>After the completion of the course, wstudent will be able to</p> <ol style="list-style-type: none"> 1. To record the basic journal entries 2 Memorize how to calculate depreciation by applying various methods 3. Maintain the financial statement of a business entity 4. rectify errors in account. 	
Credit Value	6	
Total Marks	Max Marks:60+40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures-90 (In Hour Per Week)3		
Unit	Topic	Lectures
1	Preparation Of Final Accounts With Adjustment.	15
2	Depreciation Accounting: definition, reasins governing the existence of depreciation methods,objectives of providing of depreciation , factors determining the amount of depreciation,	15

	methods of charging depreciation practical questions of depreciation accounting- fixed and written down value methods only.bank reconcialiation.	
3	Accounts of non- profit organisation and professionals.	10
key words/Tags : Financial Accounts, Balancesheet, P&L A/C, Single Entry System, Double Entry System.		

Part C Learning Resources

1

2. Dr.R.K.Sharma/ Dr. R.S.Popli, Financial Accounting, Kitab Mahal Pub., Agra.
 3. Anil,Rajesh, Mariya Financial Accounting, Himalaya Publication Nagpur.
 5. Financial accounting-Dr.M.S.shukla, Sahityabhawan publication, Agra
 - 6.. M.C.Shukla, T.S.Grewal and S.C.Gupta. Advanced Accounts.Chand & Co. New Delhi.
 7. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting.Vikas Publishing House, New Delhi.
 8. Deepak Sehgal. Financial Accounting.Vikas Publishing H House, New Delhi.
 9. Gupta R.L. and Radhaswamy M, Advanced Accounting & S chand & Sons, new Delhi.
 10. Bhushan Kumar Goyal and HN Tiwari, Financial Accounting, International Book House
 11. Dr.S.K Singh,Financial Accounting,SBPD Publication ,Indore.
- Suggestive digital platforms,
web links:
- 1.<http://www.ddegjust.ac.in/studymaterial/mba/cp-104.pdf>
 2. <http://www.ddegjust.ac.in/studymaterial/bba/bba-104.pdf>
 - 3.<http://www.deeppanacademy.com/pdf/cma/foundation/fundamentals-of-accounting.pdf>
 - 4.<http://www.academia.edu/38623012/financialaccounting/ifrsedition2ethjerry/wevegand>

Part A Introduction

Programme: Certificate Class:B.Com 1 st Year IIInd sem Session 2022-23	
Subject	Rural Banking
Course Code	A1-RBAN2G

Course Title	Banking Institutions in India	
Course Type	Elective	
Pre-Requisite	No pre-requisite	
Course Objectives	<p>To understand the meaning of Rural Banking,</p> <p>To Understand The Terms Of Banking Institutions in india</p>	
Course Learning Outcomes	<p>After the completion of the course, wstudent will be get to</p> <ol style="list-style-type: none"> 1. student will be gain a strong understanding about the banking structure in india. 2. student will be get acquainted with regulatory structure of banking sector in india 3. students will be understand about various banking institutions including rural banking institutions alon with their basic functions and their role in economic development. 4. student will be gain a deeper insight about emerging trends in banking in india. 	
Credit Value	4	
Total Marks	Max Marks:60+40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)2		
Unit	Topic	Lectures
1	Rural Banking Instutions: rural banking institutions, features,	12

	objectives, structure, functions of commercial banks, co-operative banks, primary agriculture societies, (PACS), regional rural banks, microcredit, institutions, and nabard, role of banking institutions in rural development, prospectus and challenges, of rural banking institutions in india.	
2	<p>Issues And Challenges To Banking Sector: financial inclusion in india, digital banking, technology in banking sector, issue of non-performing assets, (NPA), operational efficiency & profitability security issues, recent trends in banking system in india.</p> <p>Commercial Banks, prospectus and challenges, rural banking institutions, co-operative banks,), regional rural banks, , microcredit, NABARD,</p>	12

key words/Tags Indian Banking System, Structure Of Indian Banking System, Challenges Of Indian Banking System..Central Bank, RBI, Banking Sector Reforms, Banking Regulation Act,1949, New Licensing Policy(RBi). **Banking Institutions**, Financial Inclusion , Digital Banking, NPA, Recent Trends In India.

Part C Learning Resources

1. Indian Institute Of Banking And Finance(Iibf), Rural Banking(Caiib2018) Macmillan Publishers India Private Limited ,2018
2. Chakrabarti, Manas, Rural Banking In India, New Century Publications, 2011
3. Gopinath ,M.N., Banking Principles And Operations, Snow White Publications 2017
4. Saha Satish Kumar, Indian Banking System, Sbpd Publishing House, 2020-21
5. Chawla, O.P. Evolution Of Banking System In India Since 1900, Sage Publications India Pvt. Ltd. July 2019.
6. Singh, Sultan Banking Sector Reforms, In India, Kanishka Publishing House, 2008
7. Indian Institute Of Banking, Basics Of Banking, Taxmann Publication, 2015
8. Indian Institute Of Banking: banking- an introduction, taxmann publication, 2015

Suggestive Digital Platforms, Web Links:

1. <http://www.rbi.org.in/scripts/abouts/display.aspx>
2. <http://www.nabard.org>
3. [http:// www.sayulor.org/books](http://www.sayulor.org/books)

Part A Introduction

Programme: Certificate Class:B.Com 1 st Year IIInd sem Session 2022-23	
Subject	Rural Banking
Course Code	A1-RBAN1G
Course Title	Money& Banking
Course Type	Elective

Pre-Requste	No pre-requisite	
Course Objectives	To understand the meaning of Rural Banking, To understand the terms of Money and Banking	
Course Learning Outcomes	After the completion of the course, wstudent will be able to 1. Understand about the origin of money and banking 2. Learn about concept of money, its functions, value, money market and monetary policy operations. 3. Understand about various banking institutions along with their basic functions and their credit creation role. 4. Understand about the central bank of our country and assess the objectives and functions of reserve bank of India (RBI) 5. Also analyze the banking sector reforms and gauge at the recent trends in banking system In India.	
Credit Value	4	
Total Marks	Max Marks:60+40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)2		
Unit	Topic	Lectures
1	Banking Institutions: concept definition, functions, and importnace of bank, types of bank, commercial banks, development banks, co-operative banks,Regional rural banks (RRB), micro finance institutions, private banks, indigenous banks, credit creation, role of banking in an economy.	12

2	Central Banks And Policy Reforms In Banking objective of central bank and its role in the economy, reserve bank of india(RBI)- organisation, structure, and its functions, credit creation and control by RBI, nationalization of banks and its objectives, banking sector reforms, recent trends in banking system in india.	12
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key words/Tags : Money, Role Of Money, Paper Money, Demonetization, Money Aggregate, Value Of Money, Economic Fluctuations, Inflation, Deflation, Stagflation, Money Market, Credit Control, Monetary Policy, Current Monetary Policy In India, Types Of Bank, Credit Creation, Role Of Bank, In An Economy, Central Bank, RBI, Nationalization Of Bank, Banking Reforms, Bank Recent Trends.

Part C Learning Resources

- 1 Brandi Michael- Money, Banking, Financial Market & Institutions, Cengage, New Delhi 2019 2nd Edition..
2. Wright Robert E- Money And Banking, Saylor Foundation New York 2012
3. Samys Guru- Banking Theory, Vijay Nicole Publication, Chennai 2015
4. Trivedi I.V. Dashora Rakesh, Nagpur, Ashok Jain Sanjay- Money And Financial System, Ramesh Books Depo, Jaipur, New Delhi 2006
5. Mishra J.P. Money And Banking, Sahitya Bhawan Publication, Agra.
6. Money And Banking, M.P. Granth Academy, Bhopla.

Suggestive digital platforms, web links:

1. www.moneybanking.com
2. <http://www.nabard.org>
3. <http://www.saylor.org/books>
4. <http://www.epw.in/>
5. <http://onlinecourses.nptel.ac.in/>
6. <http://www.eds.org/school/state-bank-of-india>

Part A Introduction

Programme: Certificate Class:B.Com 1 st Year IInd sem Session 2022-23	
Subject	Business Organization And Management
Course Code	C1-COHB1G
Course Title	Business Organization And Management

Course Type	Elective	
Pre-Requisite	No pre-requisite	
Course Objectives		
Course Learning Outcomes	<p>After the completion of the course, wstudent will be able to</p> <p>CO1: Develop a basic understanding about business organization and its forms.</p> <p>CO2: develop rudimentary concept of plant location, layout and size of business units and their respective importance in the practical world.</p> <p>CO3: acquire an understanding of business combinations rationalization and nationalization.</p> <p>CO4: gain insight into the management process and its functions of planning, organization, staffing, directing, and control.</p>	
Credit Value	4	
Total Marks	Max Marks:60+40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures- (In Hour Per Week)L/T/P:4/0/0		
Unit	Topic	Lectures
1	<p>Management:concept, of management, , nature and importance of management, functions of management,, taylors scientific management, henry fayol's principles of management,</p> <p>Planning: concept, importance, process, types of plans, decision making, process, individual vs group decision making</p> <p>Organising: concept & principles of organising: formal/ informal organization, virtual organization, organization structure ,span of management.</p>	18

	<p>Delegation Of Authority centralization and decentralization, line and staff authority,</p> <p>Staffing: nature and scope of staffing, man power planning-concept and importance ,recruitment: concept and source, e-recruitment, selection concept, important tests and types of interview.performance appraisal: objectives and modern methods.</p>	
2	<p>Directing: concept and importance of directing</p> <p>Communication: concept and importance, channels of communication, formal/ informal communication, barriers of communication</p> <p>Motivation: concept and intrinsic extrinsic motivation, theories of motivation maslow's and need theory, hierarchy, herzberg two factors theory ,Mcgreger theory, X and Y theory.</p> <p>Leadership: concept , style, leadership, theories,-Trait theory, behavioural theory, contingency / situational theory,</p> <p>Conflict: meaning& types of conflict.</p> <p>Control: concept, nature, importance , process and methods, Controlling, techniques, of control financial and quality</p>	18
<p>Key Words: Business Organization, Industry And Commerce , Small And Medium Enterprises, Plant Location, Plant Layout, Size Of Business Unit, Business Combination, Rationalization, & Nationalization, Management:Concept, Scientific Management, Henry Fayol's Principles Of Management, Planning, Organising, Delegation Of Authority ,Staffing, Performance Appraisal, Communication, Formal/ Informal Communication</p> <p>Directing, Motivation, Leadership, Conflict, Control.</p>		

Part C Learning Resources

- 1 Koontz Horald O, Donneli And Wehrich, Heinz" Essentials Of Management New Delho Tata Macroe Hills , Latest Edition
2. Drucker Peter, Business Organization And Management,, Tasks Responsibilities And Practices Allied Puiblishers New Delhi 2020
3. C.B. Gupta Business Organization And Management S.Chand Publication.
4. Shukla M.C Business Organization And Management , S.Chand New Delhi .
5. Chhabra T.N. Business Organization And Management , Sun India Publication , New Delhi
- 6 . Shah & Tatted, Business Organization And Management, Sahitya Bhawan Publication,

Suggestive digital platforms, web links:

1 <http://ebooks.read.com/authors-eng/h-e-morgan/business-organizational-hci-shtml>

2. <http://in.pinterest.com/pin/83513>

3. <http://nptel.ac.in/noc/course/noc21/sem2>

Part A Introduction

Program: Certificate	Class B.A. (Plain) II Semester	Year:I	Session:2 022-23
Course Code	A1-ECON-2G		
Course Type (Core Course/ Elective Course)	Elective Course		
Course Title	Indian Economy- An Introduction (Economics)		
Credit Value	04		
Total marks	Max. Marks :60+40		Min. Passing in Marks:35
Course Objectives:	CO-1. The main objective of this paper is to introduce the student to basic understanding of the		

	<p>Indian economy and measurement of various macro-economic variables.</p> <p>CO-2. Students will be able to evaluate the consequences of economic activities on institution, individual and social welfare.</p> <p>CO-3. To make awareness among the students about various economic issues in India.</p> <p>CO-4...Organizing social and economic activities such as business club, exhibitions, effective salesmanship, and business fair for development of commercial attitude among the students</p>	
Course learning out comes:- CLO	<p>After completing this, students will be able to under the basic concepts of the Indian economy .they will be familiar with the issues related to Agriculture, Industry, Foreign Trade, economic Planning and various economic problems of India .They Will also be able to able to understand the various issues of Madhya Pradesh Economy</p>	

Part B- Course Contents:

Total No of Lectures-Tutorials – Practical (in hours per week):
3 hours

UNIT	Topics	No of Lectures
I	1. Planning in India:- Objectives, Strategy,	12 Lectures

Planning and Development	<p>achievements and failures</p> <ol style="list-style-type: none"> 2. NITI Aayog 3. Problems of Indian Economy-Poverty, Unemployment and Regional Inequality 4. Infrastructure Composition- Power, Transport and Communication. 	
II Economy of Madhya Pradesh	<ol style="list-style-type: none"> 1. Salient features of Madhya Pradesh Economy 2. Nature Resources of Madhya Pradesh:- land ,water forest and mineral 3. Trends and Regional Disparities in Agriculture Sector of Madhya Pradesh 4. Industrial Development in Madhya Pradesh 6. Infrastructure Developments in Madhya Pradesh- Power, Transport And Communication 7. Employment oriented schemes in Madhya Pradesh 	12 Lectures
<p>Key words: Sectorial Composition, Human Resources of India, Indian Agriculture , Industrialization, Infrastructure, Five year Plan in India , Regional Disparities , Industrial Development</p>		

Part c- Learning resources
Reference Books ,Other resources
<p>1. Suggested readings:</p> <ol style="list-style-type: none"> 1. Pannagariya, Arvind (2020) –India Unlimited :Reclaiming the lost Glory , harper collins publishers India 2. Mishra and Puri (2020) – Indian Economy Himalaya publishing House New Delhi. 3. Rudra Dutt and Sundaram - – Indian Economy, S.Chand and Company House New Delhi.

4. Hariharan, N.P (2008) –Lights and Shades of Indian Economy Vishal publishing, Jalandhar
5. Uma Kapila (20thEdition) (2009) Indian Economy since Independence, Academic Foundation, New Delhi.
6. Reserve Bank of India- Annual Reports

Suggested Equivalent online course:

<https://online.course.nptel.ac.in/noc21hs/preview>

Suggested Digital platform:

1. https://www.indiabudget.gov.in/economics_survey/ebookes2021/index.html
2. https://des.mp.gov.in/Ports/o/Economic_surely/ebookes2021%2020-21.pdf
3. www.indiabudget.gov.in/economic_survey/
4. <https://www.rbi.org.in/scripts/AnnualReportMainDisplay.aspx>.

PART A INTRODUCTION			
Program: Certificate	Class B.A. (Plain) II Semester	Year: I	Session: 2022-23
Subject: History			
1	Course Code	A1-HIST-2G	
2	Course Title	Constitutional History of India	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/....)	Elective	

4	Pre-requisite (if any)	This course can be opted by any student who has passed 12th class.	
5	Course Learning outcomes (CLO)	Students will analyze the salient features of the constitutional development during Company's Rule in India from 1773 - 1857 and to assess their impact on the freedom struggle of India. They will know about the influence of the British Crown on India. They will be able to write a detailed essay on the various acts passed during the Crown's period in India from 1858- 1947 and their impact on the socio political life of India. Students will be able to critically examine the major reforms by the British Government in India and highlight their salient features. They will gain the knowledge of Indian Constitution.	
6	Credit Value	04	
7	Total Marks	Max. Marks: 60+40	Min. Passing Marks: 35

PART B- CONTENT OF THE COURSE

Total No. of Lectures-Tutorials-Practical.(in hours per week) : L-T-P : 2 H/W

Unit	Topics	No. of Lectures
I	Morley-Minto Reforms and Mont-Ford Reforms Government of India Act 1909 - Causes for passing of the Act, Government's outlook towards the reforms, main provisions of the Act, defects of the Act, significance of the Act Government of India Act 1919 - Causes for passing of the Act, significance of the Montague declaration, Montague-Chelmsford Report, passing of the Act, preamble of the Act, main features of the Act.	
II	Provincial Autonomy, Indian Independence and Indian Constitution The Government of India Act of 1935 - Features of the Act, 'Home Government, Advisors of the Indian Secretary, High Commissioner, proposed Federal Plan—organization, criticism, conclusion. Meaning of Provincial autonomy. Government of India Act, 1947-The Mountbatten Plan, Factors responsible for the Independence of India, provisions and significance of the Act. Main Features of Indian Constitution.	12

Keywords/Tags: Act, Constitution, Crown and Reforms and Autonomy

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings

- 1- Sumit Sarkar: Modern India 1885 to 1947. Macmillan, 1983
- 2- R. Jeffery, J Masselos: From Rebellion to the Republic
- 3- Paul Brass: The Politics of India since Independence
- 4- Agarwal, R.C.: Indian National Movement and Constitutional Development, New Delhi
- 5- Desai A.R.: India's Path of Development
- 6- Tara Chand: History of Freedom Movement in India Vols 1,2,3,4

- 7- Bipan Chandra and Others: Freedom Struggle.
- 8- Majumdar, R.C.: History & Culture of Indian People, Vol. 8, 9, 10 &11, Bombay, 1954
- 9- Grover and Yashpal : Indian National Movement and Constitutional Development, Delhi
- 10- vvxokj vlij h%hkrh l foku dk fodk jkVh vkhsu] ubZfnYh1996
- 11- rjka%hkrh Lorarkvkhsu dk bfrgk] [k1]2]3]4 ubZfnYh1996
- 12- iksJhus%vkud Hkr dk bfrgk] Hk 1 , oa2 bylgckn 1988
- 13- xkj , oa 'kky%hkrh Lorarkl rFkl askud fodk] ubZfnYh1995
- 14- fag]ohdsj izk%hkrh jkVh vkhsu , oa askud fodk] ubZfnYh1995
- 15- ukiky]vle%hkr dkjkVh vkhsu , oa askud fodk] buh\$ 1995
- 16- QM-k ch y- %hkrh jkVh vkhsu , oa askud fodk] Hsky 1990
- 17- tS]i qkt %hkrh jkVh vkhsu , oa askud fodk] vkjk1987

Suggestive Digital Platform Web links:

- 1- <https://byjus.com/free-ias-prep/constitutional-development-of-india/>
- 2- <http://www.igntu.ac.in/eContent/BA-PoliticalScience-02Sem-DrudaySingh>
- 3- Indian%20Goverment%20and%20Politics.pdf
- 4- <https://www.jstor.org/stable/1226621?seq=1>
- 5- https://ens.wikipedia.org/wiki/Constitution_of_India
- 6- <https://constitutionnetorg/country/constitutional-history-india>
- 7- <https://blog.ipleadersin/history-and-develument-of-the-constitution-of-india/>

Suggested equivalent online courses:

Part A- Introduction			
Program : Certificate	Class B.A. (Plain) II Semester	Year:I	Session:2022-23
Subject : Generic English			
Course Code	A1-ELIT-1G		
. Course Title	Communication English (Paper, Theory + Tutorial)		
Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective		
Pre-requisite (if any)	This course can opted as an elective by the students of following subjects: Class 12 passed in any discipline /Open for all		

Course Learning Outcomes (CLO)	<p>1.The study of the course will enable the students to acquire the knowledge of Phonology and morphology syntax and structure Vocabulary and discourse.</p> <p>2.The students will be able to converse in real life situations effective language skills the cost will also help them Acquire literacy sense.</p> <p>Use atomic and lexical language effectively across the globe</p>	
Credit Value	4	
Total Marks	Max. Marks: 60+40	Minimum passingMarks:35

Part B- Content of the Course

Total No. of Lectures- Tutorials-Practical (in hours per week):1.5+0.5+00=02 L-T-P:45+15+00=60

Unit	Topics	No. of Lectures +No of Tutorials
I	<p>Practicing writing speaking skills</p> <p>3.1 Formal and informal writing of letter and invitation, meeting minutes, official orders and appointment creative writing listening to talks and presentation, note making tips.</p> <p>3.2 Communicative approach lexical approach task based learning.</p> <p>3.3 Report writing story writing daily routine in English</p> <p>3.4 Situational conversation between two friends on different topics .</p> <p>Keyword/Tags Productive skills code mixing. Situational conversation. Structural English. Frequent use of proverbs, phrases and idioms.</p>	15+04
II	<p>Application of communicate in English</p> <p>4.1 Translation (from Hindi to English and vice versa)</p> <p>4.2 Group and Peer discussion ,role play</p> <p>4.3 Contrastive analysis between 1.1 and 1.2 at structural. Phonological and lexical levels with example</p> <p>Keywords/ Tags: Literary translation. translation theories L1 interference. Bilingualism types of Role –play conversational English</p>	10+04

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

1 . A communicative grammar of English" Leech Geoffrey, and Jan Svartvik Routledge, 2003

Third edition.

2. CLT for ESL Teachers and Learners" Gautam .GS. Classical Publishing Company, New Delhi India 2012 First ed.
3. Communicative English for Globalization" Gautam GS .Classical Publishing Company, New Delhi India 2030 First edition.
4. Communicative English language skills Sumi Sumague Juheta Arjuna Society Publishing 2020.
5. Communicative Methodology in Language Teaching Brumfit C Cambridge University Press 1984.
6. Language Teaching a Scientific Approach" Lado Robert, McGraw -Hill New York 1964.
7. Motivation -The Teacher's Responsibility" Allwright. Dick ELTS Journal 31st 4 1977..
8. Problems and Principles in Language Teaching Brumfit C Pergamon Institute of English 1980.
9. The Learner -Centred Curriculum" Nunan D Cambridge University Press 1988.

Suggested digital platform weblinks :

1. [www. skillsyouneed.com/ips/what- is -communication html](http://www.skillsyouneed.com/ips/what-is-communication.html)
2. [.www. slideshare. net/mwakidimi/communication- notes -6910 3614](http://www.slideshare.net/mwakidimi/communication-notes-69103614)

Suggested equivalent online courses:

- <https://www.coursera.org/specializations/improve-english> Improve your English Communication Skills Specialization by Gerry Landers, Amalia B. Stephens, Karen Peterson, Georgia Tech Language Institute.

Any remarks/ suggestions: Tutorial activities (based on syllabus) in the class by students and teacher are desirable. These will strengthen the student's knowledge of communicative English.

Hkk & v & i fjp;			
dk ðe %i ækki =	Class B.A. (Plain) II Semester	Year:I	Session:2022-23
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2	i B-dæ dk 'k'k	fghh v k fokk u Qol k	
3	i B-dæ dk i z k	t s f d Generic Elective 1/2	
4	i o z k Prerequisite 1/2	bl d k Zdk v / ; u djusdsfy,] Nk= usfdl h Hh l dk @"k ead{k 12ohav Fok l ed{k i j k n h Zdh gA	
Open for all 1/2			

<p>5</p> <p>iB-də v/ ; u dh ifjy fCk ka d k Zyfu vkn de 1/2 CLO 1/2</p>	<p>vkt dsoSohj.k , oact kjon dsnjS eafoKki u , d l 'kDr ek/ e ds: lk eamhij dj l leusvk k gS foKki u dk {s vR k/d Qki d , oa cga k leh gS u dsy nr knu daFu; ka } kj k olrq dk i p k & i z kj fd; k tk jgk gS cfyd tudY; k kj ' k f. kd l aFk v ka, oal puk v k adsi p k & i z kj eaHh foKki ula dh egr h H k v d k gS f g u h v k t c k t k j d h t : j r c u x; h gS f g u h c k y u s l e > u s o k y l a d h l a ; k e a v k k r o f) g l s d s d k j . k f o i . k u & d a f u ; k a d k s v i u s n r k n c p u s d s f y , f g a h e a r S k j . f o K k i u d h v R a v k o ' ; d r k g S f g a h H k k k d s e k / e l s f o f H u t u l p k j e k / e k a e a f o K k i u Q o l k } k j k j k s x k j d h v i k j l a k o u k a g S f o K k i u d h v o / k j . k j v k o ' ; d r k j f u n z k o f l } k u] f o K k i u & y s k u d h j p u k i d z k l s f o l k f z d k s i f j f r d j k u k g h b l i B - d e d s v / ; u & v / ; k i u d k i z k s u g S</p> <p>iB-də ds v/ ; u l s &</p> <p>1- bl iB-də ds v/ ; u k j k a f o l k f z d k s f i z e h m k j b y S m v d e h m k j f o K k i u , t a ; k a o v U l a F k v k a e s f o K k i u & y s k u d s e k / e l s j k s x k j d s v o l j m i y C k g l s l d a A</p> <p>2- f o f H u i z k j d s f o K k i u l s l a f k r L y k s u] x h r] f t a y & y s k u] r d k a d f o r k j j s k f p =] c s j] i k s v] j a & a k s u] d s a j l f u e k z k v k n d s d k s y d k f o d k f o l k f z e a g l s l d s k A</p> <p>3- v i u s n s k l e k t , o a { s f o ' k k d s m i H k r k d h : f o] d z & k D r , o a o l r q d h e k a l s f o l k f z f o K k i u & y s k u d s n j s u i f j f r g l s k j f t l l s m e a f o ' y s k k { l e r k d k f o d k g l s l d s k A</p> <p>4- f o K k i u d h r F , k e d c u k u s d s f y , f o l k f z f o f H u m r k n d a f u ; k a d s m r k n e d h t k u d k j h i h r d j u s d k i z k d j s k f t l l s m e a r g u k e d , o a r k f d z f o o p u d h { l e r k d k f o d k g l s k j f t l l s o g L o ; a d k Q o l k v k j a k d j u s d s</p>
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- 1- vxzky] e/q& ^Hrh fokki u eausdrk** & idkku foHk] ubZfnyh] l a&1995
- 2- dgJ\$B] NWfot; & ^tul adZi pi, oafokki u** & jk LRku idkku] t; ij] l a&2017
- 3- dgJ\$B] NWfot; & ^fokki u %f}ka v\$ izk** & ekki idkku e] t; ij] l a &2018
- 4- t Bokuh] t; Jh, oavU & ^fokki u v\$ tul adZ* & l k] i fydsku] ubZfnyh] l a
- 5- frojh] NW] lephz & ^fokki u Qol k , oadyk** & vky \$ki idkku] fnyh] l a&2008
- 6- ikN\$] d\$kk uk & ^fokki u ckt j v\$ fgan** & okki idkku] fnyh] l a&2018
- 7- ikN\$] vkk & ^fgan fokki ukadh Hk** & Gydh, .Mi fy'k Zi kfy-] fnyh] l a&1986
- 8- ij] vkk & ^fgan fokki ukadki gyk n\$** & vuU idkku] fnyh] l a&2017
- 9- egtu] v'kd & ^fokki u** & gf; kkl kgr vdkne] i pdy] l a&2010
- 10- egu] egbz & ^, Mj Vk ft a esse** & eakuy , tqsku bM] l a&2017
- 11- 'lekZ deq & ^fokki u dh nu; k** & i k idkku] fnyh] l a&2010
- 12- ; kn] uj bhz fl g & ^fokki u rdud , oaf}k** & fghh, oavdkne] t; ij] l a &2017
- 13- gvoky] , dsoj izkn & ^fokki u dyk** & jk LRku fgan xk vdkne] t; ij] l a &1989

vuqf r osl kbV , oafM Vy l adZi w %

1. www.ndl.iitkgp.ac.in. (National Digital Library of India)
2. <http://www.csttpublication.mhrd.gov.in/>
3. <http://ugcmoocs.inflibnet.ac.in/>
4. <http://ignou.ac.in/eGyankosh>
5. <http://ugcmoocs.inflibnet.ac.in/>
6. <http://www.swayamprabha.gov.in/>
7. www.mghv.in

Part A Introduction			
Program : Certificate	Class B.A. (Plain) II Semester	Year:I	Session:2022-23
Subject : Psychology			
1	Course Code	A1-BECO-1G	
2	Course Title	Organizational Behavior	
3	Course Title (Core Course/Elective /Generic Elective /Vocational/.....)	Elective	
4	Pre- requisite (if any)	-	
5	Course Learning outcomes (CLO)	The course will enable the students t develop an understanding of the principles of human behavior in organizations with relevance of the Indian business context.	
6	Credit Value	Theory -6	
7	Total Marks	Max. Marks: 60+40	Min. Passing Marks: 35
Part B			
Content of the Course-GE Subject-I (Organizational Behavior)			
Total No. of Lectures –Tutorials –Practical (in hours per week):			
Total No. of Lectures=90			
Unit	Topics	No. of Lectures	
Keywords /Tags : Learning; Attitude; Job satisfaction ; Motivation; personality; values; perception; decision making emotions			
I	GROUP BEHAVIOUR: 1.Group and Work Teams: Concept; five stage model of group development; Group think and shift; Indian perspective on group norms. Groups and teams; Types of teams; Creating team players from individuals; Team building and team based work(TBW) 2. Leadership: Concept; Trait Theories; Behavioral Theories(Ohio and Michigan studies); Contingency theories(Fiedler, Hersey and Blanchard, Path-goal); Authentic leadership; Mentoring, Self leadership, online leadership; Inspirational Approaches(transformational, Charismatic); Comparison of Indian Leadership styles with other countries. Exercises, games and role plays may be conducted to develop team and leadership skills	11	
II	ORGANISATIONAL CULTURE AND STRUCTURE: Concept of culture; impact(functions and liability);creating and sustaining culture; Employees and culture; Creating positive and ethical cultures. Concept of structure, Prevalent organizational designs, New Design options.	12	
<hr/> B.Sc I st Year (II sem) Wef-2022-23			

III	<p>ORGANISATIONAL CHANGE, CONFLICT AND POWER: Forces of change; planned changes; Resistances; Approaches(Lewin’s model, Organizational Development); Learning organization; Organisational change in Indian businesses. Concept of conflict; Traditional view and interactions view of conflict; Conflict process; Functional/Dysfunctional. Introduction to power and politics.</p>	12
<p>Keywords /Tags :Change; Resistance; Conflict; Power; Politics</p>		
<p style="text-align: center;">Part C-Learning Resources Text Book, Reference books, other resources</p> <p>Suggested Reading:</p> <ol style="list-style-type: none"> 1. Luthans Fred, “Organizational Behaviour”, McGraw Hills 2. Hellriegel, Slocum and Woodman , OB, South-western, Thomson leaning, 9th ed. 2001 3. Behavior in organization, Jerald Greenberg, 8th ed, pearson edu 4. Arnold, John, Robertson, Ivan t. and cooper, cary, I, “Work psychology: understanding human behavior in the workspace” Macmillan India Ltd. Delhi. 5. Dwivedi, R.S;”Human relations and organizational behavior: A global perspective”, Macmillan India Ltd. Delhi. 		
<p>Suggestive equivalent online courses:</p> <ol style="list-style-type: none"> 1. https://www.coursera.org/courses?query=economics 2. https://www.mooc-list.com/tags/economics 3. https://www.coursera.org/learn 4. https://ocw.mit.edu/courses 5. https://nptel.ac.in/courses/macroeconomics 6. https://nptel.ac.in/courses/economics 7. https://nptel.ac.in/courses/managerial economics 		

Part A Introduction			
Program: Certificate/Diploma/ Degree	Class B.A. (Plain) II Semester	Year:I	Session:2022-23
Subject : Political science			
1	Course Code	A1-POSC-1G	
2	Course Title	Indian political system	
3	Course Title (Core Course/Elective /Generic Elective /Vocational/.....)	Elective	
4	Pre- requisite (if any)	To study this course, a student must have passed 12 th Student of any subject can study this course.	
5	Course Learning outcomes (CLO)	<ol style="list-style-type: none"> 1. Students will be able to understand nature of Indian political System and its determinates. 2. They will be able to answer questions related to the functions and role of the president, prime Minister, parliament and Supreme Court, party system in the institutional settings of Indian political system. 3. They will be a able to understand basic problems of Indian political system. 4. They will be able to identity the challenges of Indian political system. 	
6	Credit Value	Theory-6	
7	Total Marks	Max. Marks; 60+40	Min. Passing Marks: 35
Part B- Content of the Course			
Total no of Lectures –Tutorials –Practical (in hours per week): 4 hours per week			
Total Lectures - 60 hours			
Unit	Topics		No. of Lectures
I	Problems of Indian political system : <ol style="list-style-type: none"> 1. Linguism. 2. Regionalism 3. Casteism 4. Communalism 		22

II	<p>Challenges of Indian political system :</p> <ol style="list-style-type: none"> 1. Poverty 2. Social justice 3. Gender justice 4. Defection politics 5. Election Reforms 	22
Keywords/ Tags		
Part C-Learning Resources		
Text Books, Reference Book, Other resources		
<p>Suggested Readings:</p> <ol style="list-style-type: none"> 1- Austin,G “The Indian Constitution: Cornerstone of a Nation”, Oxford University press, Delhi,1966. 2- Basu,D.D “ Introductionto the Constitution of Indian”,24 th edition,LexixNexi 3- Publication, Gurgaon, Haryana, 2020. 4- Jayal, Nirja Gopal and pratap Bhanu Mehta, Companion to politics in India student edition”, Oxford University press New delhi.2010. 4- Kashayap, Subhash, Our constitution: an Introduction to Indias Constitution and Constitutional law” National Book Trust, India, 2011. 5- Kashayap, subhash,” Constitution of India”, National Book Trust, India, 2004. 6- Kaviraj,”politics in india”, Oxford University press Delhi, 1970. 7. Kothary, R, Politics in India”, orientLongman, New Delhi, 1970. 8. M. Laxmikant, Indian polity “, McGraw Hill Education 9- Narang, A.S “Indian Govertment and politics”, Geetanjali publishing House, New Delhi,1996 (Latest edition) 10-Sharma, B.K” Introduction to the Constitution of india”, PHI Learning Delhi, 2019. 11- Pylee, M.P.,Saxena, R “Federalizing India in the age of Globalizations”, primus Book, New Delhi, 2013. 12- Roy, H& Singh, M.P. Indian POLITICAL System”, Pearson, Delhi 2018. 		
<p>Suggestive digital platforms web links</p> <ol style="list-style-type: none"> 1. https://WWW.Jstor.org/stable/2125628?seq= 1 2. https://politicalscience.stanford.edu/research/ political- theory 3. https://link. Springer. Com/referenceworkentry/10.1007%2f978-1-4020-8265-8-1431 4. https:// www. YouTube. Watch? v= fd TNIx52weg 		
<p>Suggestive equivalent online courses:</p> <p>NPTL- Introduction to political Theory by Prof. Mithlesh kumar jha. IIT gwahati</p>		
Any remarks suggestions:		

Part A Introduction			
Program :certificate Course	Class B.A. (Plain) II Semester	Year:I	Session:2022-23
Subject :Sociology			
1	Course Code	A1-SOCI-1G	
2	Course Title	Introduction to Sociology	
3	Course Title (Core Course /Elective /Generic Elective /Vocational/.....	Elective	
4	Pre- requisite (if any)	This is an elective paper open for all B.A. 1 st Year Students, except those who have opted Sociology as core paper.	
5	Course Learning outcomes (CLO)	<ol style="list-style-type: none"> 1. This course will enhance the conceptual Learning and understanding of the basic concept used in Sociology. 2. The Paper will contribute in enriching the vocabulary and scientific temperament of the student about human society. 3. In this course student will get information about employment opportunities related to the discipline of Sociology. 4. The Course will provide Knowledge about social-cultural processes. 	
6	Credit Value	Theory-4	
7	Total Marks	Max. Marks; 60+40	Min. Passing Marks: 35
Part B- Content of the Course			
Total no of Lectures –Tutorials –Practical (in hours per week): 6 hours per week			
Unit	Topics	No. of Lectures	

I	Social Cultural Processes : 1.Culture 1.1 Meaning 1.2 Characteristics 1.3 Types 1.4 Culture and Civilization 2. Socialization 2.1 Meaning 2.2 Characteristics 2.3 Stages 2.4 Agencies 3.Social processes 3.1 Cooperation 3.2 Accommodation 3.3 Competition 3.4 Conflict	14
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Keywords /Tags : Culture, Social Process, Civilization, Socialization, Cooperation

II	Social Control and Change: 1.Social Control 1.1 Concept 1.4 Means of Social Control 2. Social Stratification 2.1 Concept 2.2 Bases 3.Social Change 3.1 Meaning 3.2 Characteristics 3.3 Factors of social Change 3.4 Patterns of social change	12
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Keywords /Tags : Social Control, Social Stratification, Social Change, Factors of Social change, Patterns of Social Change.

Part C-Learning Resources

Suggested Readings:

- 1-Maclver, Robert M& Charles Hunt Page (1949) Society: An Introductory Analysis, New York.
- 2- Beteille Andre (1965) Caste Class &Power, California University, Berkeley.
- 3-Ghury GS (1961) Caste Class & Occupation, Popular Book Depot.,Bombay.
- 4-Ogburn & Nimkof (1947) Hand Book of Sociology, K.Paul, Trench, Prebner and Comp. LTD. London.
- 5- Giddens,A.(2006).Sociology (5th ed.).Oxford University Press.London
- 6-Horton and Hunt .(1964)Sociology – The Displine and its Dimensions: New Central Book Agency , Calcutta.
- 7- Johson Harry M.(1988)Sociology- A Systematic Introduction. Allied Publisher Pvt Ltd, New Delhi.

<p align="center">Part A Introduction</p>			
<p>Suggestive digital platforms web links</p>		<p>Class: II Semester Year: I Session: 2022-23</p>	
<p>Program: Certificate/Diploma/Degree</p>		<p>Subject: NCC</p>	
<p>Suggestive equivalent online courses:</p>			
<p>1. IGNOU & Other centrally/state operated Universities</p>		<p>Abroad</p>	
<p>Course Code</p>		<p>Course Title</p>	
<p>MOOC platforms as "SWAYAM" in india and</p>		<p>NCC Awareness</p>	
<p>Any remarks suggestions:</p>			
<p>Type (Core</p>		<p>Elective</p>	
<p>course/Elective/Generic</p>		<p>Elective/Vocational/...)</p>	
4	<p>Pre-requisite (if any)</p>	<p>To study this course ,a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all</p>	
5	<p>Course Learning outcomes(CLO)</p>	<p>The students will develop a sense of responsibility and there by display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things. This paper will enable the students to build and develop leadership through communication. The significant relationship between personality traits and leadership will be achieved and executed.</p>	
6	<p>Credit value</p>	<p>04</p>	
7	<p>Total Marks</p>	<p>Max.Marks: 60+40</p>	<p>Min.Passing Marks: 35</p>
<p align="center">Part B- Content of the Course</p>			
<p align="center">Total numbers of Lectures(in hours per week) :2hours per week</p>			
<p align="center">Total lectures:60Hours L-T-P (02-00-00)</p>			
Unit	Topics	No of Lectures	
I	Personality development:	15	

	<ul style="list-style-type: none"> • Introduction to personality development • Factors influencing and shaping the personality • Team work and team building, social skills, Etiquettes and manners, Decision making and problem solving, Change your mind set 	
II	<p>Leadership:</p> <ul style="list-style-type: none"> • Introduction and type of Leadership • Leadership traits • How to develop leadership. • Leadership case study(Field Marshal General Sam H.F.J.Manekshaw and General K.M Cariappa) <p>First Aid:</p> <ul style="list-style-type: none"> • Scope and objectives • First aid in common emergencies, Dressing of Wounds. 	15

Part C- Learning Resources				
Text Books, Reference Books, Other resources				
Suggested Readings:				
S No	Name of Writers	Name of Book	Name of Publishers	Year of publication
1	Sabharwal, D.P	Personality Development	Finger print publishing, India	2015
2	Sabharwal, D.P	Personality Development (Hindi)	publishing, India	2021
3	Gurav, Aarti	50 Mantras of Personality Development	Buzzing stock Publishing	2013
4	Vasudeva, Sangeetha	Personality Development	Clever Fox publishing	2021
5	Kapoor, Shikha	Personality Development and Soft skills	Dream Tech Press	2020
6	Sinha, Surya	Complete Personality Development course (Hindi)		2012
7	Agrawal, (Dr.) Vijay	Student and Personality Development (Hindi)	Benteen Books	2012
8	Shekhar, (Dr) Priyanshu	Personality Development guide (Hindi)	PrabhatPrakashan	2016
9	Anand, Arunsagar	Personality Development Course (Hindi)	V & S Publication	2013
10	Sharma, Robin	Leadership Wisdom	Jaico publishing House	2003
11	Maxwell, John C	5-Levels of leadership	Cross liance	2014

12	Dravid,Rahul and Iyer,Prakash	The Secret of Leadership	Penguin ,India	2020
13	Dr. Bomi	The Leadership Handbook		2020
14	Bindra, Vivek	Everything about Leadership	Diamond Pocket Books	2018
15	Carnegie,Dala	The Leader in you	Amazing reeds	2018
16	Subramanian,Ramesh and Ramiah,Ramkrishan	Leadership by Values	Notion Press	2020
17	Manivannan,C.andManivannan,T.Latha	Text Book of FirstAid and Emergency Nursing	EMMESS Medical Publishers	2020
18	Popli,Harvinder and Sharma, Nirmal	Emergency First aid Safety Oriented	CBS Publishers	
19	Jain,N>C>and Saakshi	First Aid and Emergency Case	AITBS Publishers	2019
20	Pippa,Dr.Keech	Practical Guide to First Aid	Anees Publishing House	
21	Gupta,RK	NCC National Cadet Corps(Hindi & English)	Ramesh Publication	2021
22		Hand Book of NCC	Kanti Publication, Itawa	2017
23		Hand Book of NCC an unique book for NCC Cadets	Naveen Publication	2019
24	Ranjan, Shashi and kumar,Aashish	Hand Book of NCC	Goodwin Publication	2021
25	Chauhan,Lt(Dr) Rajeev kumar	NCC National Cadet Corps	Aakriti publication	2021
26		Cadets Hand book	NCC Directorate M.p.& C.G	
27	Goyal,Hariom	Personality Development	KalpazPublication,India	
28	Mitra,Barun K	Personality Development and Soft Skills	Oxford University Press India	
29	Mishra, Rajeev k	Personality Development-Transform Yourself	Rupa and Company India	
2.Suggestive digital platforms web links: 1. https://www.en.m.wikipedia.org 2. https://www.firstaidforfree.com				
Suggested equivalent online courses:				

Part A Introduction			
Program: Certificate/Diploma/Degree	Class: II Semster	Year:I	Session:2022-23
Subject: NCC			
1	Course Code	NBCOSE(Y-106P	
2	Course Title	NCC Training	
3	Course Type(Core course/Elective/Generic Elective/Vocational/...)	Elective	
4	Pre-requisite (if any)	To study this course ,a student must have passed 12 th with any subject and must be medically fit. This course can be opted as an elective and it is open for all	
5	Course Learning outcomes(CLO)	Aim of the Course is to inculcate a sense of discipline, create self confidence and to create a human resource of organized,trained youth and to develop the quality of immediate and implicit the obedience of orders. Trained the youth to meet any medical emergency by giving aid.	
6	Credit value	02	
7	TotalMarks	Max.Marks: 25+75	Min.PassingMarks:33
Part B- Content of the Course			
Total numbers of Lectures-Tutorials-Practical (in hours per week) :2hours per week			
L-T-P:00-00-01			
S.No	Topics	No of Lectures	No of Tutorial
UNIT-I	Group Discussion on current topics and issues(National & internationals) <ul style="list-style-type: none"> • Public Speaking/Extempour • First Aid: Bandages and CPR 	15	
	TOTAL	30	
Keywords/ Tags: Drill, Troupe,Salute,First aid, CPR			
Part C-Learning Resources			
Text Books,Reference Book, Other Resources			

Part A : Introduction			
Program:- Certificate/Diploma/Degree/ Course	Class: II Semster	Year:I	Session:2022-23
Subject: National Service Scheme (NSS)			
1	Course Code	NSS:101	
2	Course Title	Concept of National Service Scheme	
3	Course Type	Elective	
4	Pre-requisite (if any)	To study this course ,a student must have passed 12 th with any subject. This course can be opted as an elective and it is open for all	
5	Course Learning outcomes(CLO)	<p>Course Objective:-</p> <ol style="list-style-type: none"> 1. Main objective of syllabus is developing the personality and character of the students youth through voluntary community service.It will also help them understand the rich cultural service. It will also help them understand the rich cultural diversity of india and have pride through a better Knowledge of the Country. 2. Understand the community in which they work and their relation. 3. Identity the needs and problems of the community and involve them in problem-solving. 4. Develop capacity to meet emergencies and natural disasters. 5. Practice national integration and social harmony and. 6. Utilize their knowledge in finding practical solutions to individual and community problems. <p>Learning Outcome:- To impart hands- on skills in Preparation. Theend of the paper,a student should be able to:</p> <ol style="list-style-type: none"> 1. Understand the importance of having community problems and their solution. It might help in job opportunity in some Government approved NGOs, and Ministry of youth affairs and Sports. 2. The students can carry out basic information about Community, which in turn and be of great help in disaster management fields. 3. Students can also go for Social Community Courses, Opening opportunities in different social activity related department. 	
6	Credit Value	Theory -04	
7	Total Marks	Max.Marks: 60+40	Min.Passing Marks:35

Part B- Content of the Course	
Total numbers of Lectures(in hours per week) :2hours per week	
Total lectures: 60 Hours	

Unit	Topics	No of Lectures
I	<p>Day camp, Special camp and Personality development:</p> <ul style="list-style-type: none"> • Various Demension of day camp. • Special camp at college/Unit level. • Other Camps: District level camp, University level camp, State level Leadership Training camp. • NIC camp, Sahshik activity camp, pre –RDC, RDCcamp. <p>Key Words:- Youth Camping.</p>	15 HOurs
II	<p>Youth and volunteerism:</p> <ul style="list-style-type: none"> • Definition, Issues, challenges and opportunities for Youth. • Youth as an agent of social change. • Indian Tradition of volunteerism. • Needs and importance of volunteerism. • Motivation and constraints of volunteerism. <p>Key Words:- Youth volunteerism.</p>	15 Hours

Part C- Learning Resources
Text Books, Reference Books, Other resources
<p>Suggested Reading Materials:</p> <ol style="list-style-type: none"> 1. National Service Scheme Manual, Government of india. 2. Training Programme on national Programme scheme, TISS. 3. Orientation Courses for NSS programme officers, TISS. 4. Case material as Training Aid for field workers, Gurmeet Hans. 5. Social service opportunities in Hospitals, Kapil K. Krishan, TISS. 6. Social Problems in india, Ram Ahuja.
<p>Suggested equivalent online Courses:</p> <p>http://www.thebetterindia.com/140/national-service-scheme-nss</p> <p>http://en.wikipedia.org/wiki/national-service-scheme</p> <p>http://nss.nic.in</p>

Part A : Introduction			
Program:- Certificate/Diploma/Degree/Course	Class: II Semster	Year:I	Session:2022-23
Subject: National Service Scheme (NSS)			
1	Course Code	NSS:102	
2	Course Title	Project Tool of NSS	
3	Course Type	Practical/ Project Work	
4	Pre-requisite (if any)	To study this course ,a student must have passed 12 th with any subject. This course can be opted as an elective and it is open for all	
5	Course Learning outcomes(CLO)	<p>Course Objective:- Each student Will Have the option to select two skill-areas out of the list based on the local conditions and opportunities, and will Prepare a report based on field situation.</p> <p>Learning Outcome:- To impart hands- on skills in Preparation. The end of the paper,a student should be able to: Project work of NSS will aim to enhance the employment poteniol of the NSS volunteers or, alternately to help them to job opportunities in government approved NGOs,ministry of youth Affairs and Sports.</p>	
6	Credit Value	Practical -02	
7	Total Marks	Max.Marks: 25+75	Min.Passing Marks:33

Part B- Content of the Practical Course	
Total numbers of Lectures (in hours per week) :2hours per week	
Credits -02 (Total Lectures :30 Hours)	
<ul style="list-style-type: none"> • Internal Assessment:- Marks-25 1. Class Interaction. (05) <ul style="list-style-type: none"> • Quiz. (05) • Seminar. (07) • Assigments. (08) • External Assessment:- Marks-75 <ul style="list-style-type: none"> • Report of Regular Activities in the Society. (15) • Report of NSS Volunteerism. (10) • Report of Communication Skills. 	<p style="text-align: right;">Scheme of Practical Examination :- Max.Marks (25+75=100) Max.</p> <p style="text-align: right;">Max.</p>

<ul style="list-style-type: none"> (10) • Report of Camping Activity . (15) • Report of Excursion/Training/Survey/Data Collection . (10) • Viva-Voce. (05) • Practical Record (10) 	
List of Practical/ Project Activity:- Communication Skill:- Personality development, communications Skill development, Problem-Solving. Key Words- Communication skill project activity.	05
Youth and Community :- Adoption of slum, Survey of slum, Service of Slum, Identification of problems of slum areas. Key Words- Youth community project activity.	07 Hours
Youth and Health:- AIDS, Drugs and substance abuse, Home nursing, First Aid, Yoga as a tool for healthy lifestyle etc. Key words- Regular activity, project activity.	05 Hours
Environmental Issues:- Natural disaster management, natural resource management, Rain water harvesting, Afforestation, Waste management etc. Key words- Natural resources/ disaster management project activity.	06 Hours
Awareness Programe :- Peer mentoring in preventing crimes, cyber crime and prevention ,juvenile justice,save girls child protection, Blood donation awareness,swacch Bharat abhiyan, Corona virus awareness etc. Key Words- Volunteerism awreness project activity.	07 Hours
Part C : learning Resources	
Text Books, Reference Books, Other resources	
Suggested Reading Materials: <ul style="list-style-type: none"> • National Service Scheme Manual, Government of india. • Training Programme on national Programme scheme, TISS. • Orientation Courses for NSS programme officers, TISS. • Case material as Training Aid for field workers, Gurmeet Hans. • Social service opportunities in Hospitals, Kapil K. Krishan, TISS. • Social Problems in india, Ram Ahuja. 	
Suggested equivalent online Courses: http://www.thebetterindia.com/140/national-service-scheme-nss http://en.wikipedia.org/wiki/national-service-scheme http://nss.nic.in	