

Syllabus

**B.A. (Psychology)
(Sem.- I)**

Table of Content

Sr. No.	Name of Subject	Credits
1	Major 1 Introduction to Psychology	4
2	Major 2 Basics of Learning and Memory	2
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4	OE 1 - Quantitative Techniques – I	2
5	AEC - Communication Skills in English I	2
6	VEC - Environmental Management & Sustainable Development -I	2
7	IKS - Indian Knowledge System Series (Generic) – I	2
8	CC - National Service Scheme OR CC - Introduction to Sports, Physical literacy, Health and Fitness and Yoga OR CC - Introduction to Cultural Activities	2

Note: Kindly refer to the FYBA History and Economics PDF for the Minor syllabus.

Vertical 1

Major 1

Introduction to Psychology

Semester - I

Course Vertical: Major (Mandatory)

Course Title: Introduction to Psychology

Course Credits: 4

Learning Objectives:

- 1) To learn about basic concepts in psychology.
- 2) To explore scientific methods in psychology
- 3) To learn about Individual differences.
- 4) To build an awareness of the study of brain behaviour link
- 5) To enhance understanding of different phases of Human Development
- 6) To orient students about issues related to mental & psychological health
- 7) To increase awareness about stressors, coping mechanisms and therapies

Course Outcomes:

- 1) Describe psychology as science.
- 2) Describe and Give examples of individual differences.
- 3) Evaluate role of individual differences and biological basis.
- 4) Appraise the biological basis of behavior.
- 5) Describe, and summarize the steps of development across life span.
- 6) Discuss issues about aspects of psychology.

Introduction to Psychology

- | | |
|---|------------|
| 1. Psychology: What is it? | (15 Hours) |
| <ul style="list-style-type: none">a. Psychology- Definition, Goals, Perspectivesb. Psychology as a Sciencec. Individual differences and Intelligenced. Professionals in Psychologye. Frequently asked questions in Psychology | |
| 2. Biological Psychology | (15 Hours) |
| <ul style="list-style-type: none">a. Neuron and Neurotransmittersb. Endocrine systemc. Brain and Behaviourd. Neuroplasticity and Brain Computer Interfacee. Hemispheric specialisation and language | |
| 3. Development across the lifespan | (15 Hours) |
| <ul style="list-style-type: none">a. Studying human developmentb. Stages of development: prenatal, infancy and childhoodc. Classic studies in Psychologyd. Indian Adolescentse. Late adulthood and ageing | |

4. Stress and Health

(15 Hours)

- a. Stress and stressors
- b. Physiological factors
- c. Psychological factors
- d. Emotional factors
- e. Coping with stress

Books:

1. Baron, R. A., & Kalsher, M. J. (2008). Psychology: From Science to Practice. (2nd ed.). Pearson Education inc., Allyn and Bacon
2. Ciccarelli, S. K. & Meyer, G. E. (2008). Psychology. (Indian sub-continent adaptation). New Delhi: Dorling Kindersley (India) pvt ltd.
3. Ciccarelli, S. K., White, J. N. & Misra, G. (2015). Psychology. 5th edi. New Jersey: Pearson education

Vertical 1

Major 2

**Basics of Learning and
Memory**

Semester I**Course Vertical: Major (Mandatory)****Course Title: Basics of Learning and Memory****Course Credits: 2****Learning Objectives:**

- 1) To know basic ideas about learning to understand different types of learning and research is done on it
- 2) To know biological, cognitive aspects of learning relationship.
- 3) To understand social or vicarious learning.
- 4) To know how human memory works.
- 5) To understand theories of memory and to know and understand forgetting.

Course Outcomes:

- 1) Define learning, and understand its characteristics, highlight the main aspects in learning theories.
- 2) Explain the relationship between biology, cognition, and learning, understand observational learning, explore the effects of violence on aggression.
- 3) Understand the importance of studying the topic of memory, how memories are formed and stored, and how memorization can be improved
- 4) Understand how explicit and implicit memories are stored in the brain, how retrieval takes place, causes of forgetting, the techniques to improve memory

Basics of Learning and Memory**1. Learning - (15 Hours)**

- a. How do we learn?
- b. Classical conditioning and operant conditioning
- c. Biology, cognition and learning
- d. Learning by observation

2. Memory - (15 Hours)

- a. Studying Memory and Building memories
- b. Memory systems: Sensory memory, Working memory, and Long-Term memory
- c. Memory storage
- d. Retrieval and Forgetting
- e. Memory construction errors
- f. Improving Memory

Books:

1. Baron, R. A., & Kalsher, M. J. (2008). Psychology: From Science to Practice. (2nd ed.). Pearson Education inc., Allyn and Bacon
2. Ciccarelli, S. K. & Meyer, G. E. (2008). Psychology. (Indian sub-continent adaptation). New Delhi: Dorling Kindersley (India) pvt Ltd.

3. Ciccarelli, S. K., White, J. N. & Misra, G. (2015). Psychology. 5th ed. New Jersey: Pearson education.

Vertical 4

SEC

**Methods for Studying
Psychology**

Semester I

Course Vertical: SEC (VSEC)

Course Title: Methods for Studying Psychology

Course Credit: 02

Learning Objectives:

1. To introduce students to various research methods used in psychological studies.
2. To help students develop the ability to critically evaluate research methodologies.
3. To ensure that students understand ethical guidelines and considerations in psychological research.
4. To help students apply learned methods in designing and conducting simple research studies.

Course Outcomes:

After completing this course, students will be able to:

1. Identify and describe different research methods used in psychology.
2. Evaluate research studies for their methodological strengths and weaknesses.
3. Demonstrate an understanding of ethical considerations in psychological research.
4. Design and conduct basic experiments or studies using appropriate methods.
5. Communicate research findings effectively through written and oral presentations.

Units/Modules:

Unit 1: Introduction to Psychological Research Methods

(15 Hours)

- Overview of the scientific method and its application in psychology. Research Ethics in Psychology
- Understanding the goals and principles of psychological research.
- Overview of the steps in the scientific method: observation, hypothesis formation, data collection, analysis, and conclusion drawing.
- Variables in Psychological Research, Sampling: Random and non-random

Unit 2: Quantitative and Qualitative Research Methods

(15 Hours)

- Experimental Research: Laboratory and field Experimental Research.
- Nonexperimental Research: Observational Research, Correlational Research, Case Study and Survey Research
- Introduction to Qualitative Research
- Qualitative Data Collection and Analysis Methods: Interviews, Observations, Focus groups, Document analysis. Introduction to qualitative data analysis techniques.

References

- 1) Kumar R. (2011), 3rd Edition, Research Methodology a step-by-step guide for beginners. London: Sage Publications
- 2) Kerlinger, Fred N. () Foundations of Behavioural Research. New York: Harcourt Brace Jovanovich College Publishers - 150.7943, KER (12635)
- 3) Coolican, H. (2006) Introduction to Research Methods in Psychology. Great Britain: Hodder Arnold- 150.194 COO (31471)
- 4) Kothari, C. R. (2002) Research Methodology: Methods and Techniques. New Delhi: Wishwa Prakashan.

Vertical 3

OE 1

Quantitative Techniques – I

Name of the Course: Quantitative Techniques – I (OE – I)

Sr. No.	Heading	Particulars
1	Description the course: Including but not limited to:	This course deals with the Basic Mathematics that forms an essential component of Most of the Competitive and Entrance Examinations, such as Banking, Management Entrance, UPSC/MPSC, SET/NET, GMAT/GRE to quote a few. Although the Math-concepts involved in these examinations are of elementary level, the nature of the problems in such exams is far different, and the difficulty level of the questions is much higher, than the typical ones, based on which students are tested in schools. A person appearing for such exams is expected to have a thorough understanding of the concepts, to have ability to think logically, and to be able to interpret the data, presented in different manner.
2	Vertical:	Open Elective
3	Type:	Theory
4	Credits:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted:	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives (CO): This course revises the basic mathematical concepts learned during school career. However, the problems asked in this course would be mostly advanced and indirect, and would demand broader and critical thinking. The course aims to enhance the reasoning power and logical thinking of the learners and nurture their intellect so as to make them competent across all competitive exams. CO1. To reinforce the basic math concepts and ideas within the learners CO2. To enhance the reasoning power of the learners and make them think over and apply concepts/formulae to solve math problems of indirect nature, thereby developing their problem-solving capacity. CO3. To develop logical thinking of the learners CO4. To make learners competent across all competitive and entrance examinations.	
8	Course Outcomes (OC): After completion of the course, students will be able to. OC1: understand the integers, rational numbers, real numbers and their operations. OC2: learn the concepts of GCD, LCM. OC3: understand the concepts related to averages and percentages, such as arithmetic mean.	

	<p>geometric mean, harmonic mean OC4: evaluate the ratios and proportions OC5: understand the Profit, Loss, Percentage Profit and Percentage Loss. OC6: learn the concepts related to Time, Speed and Distance.</p>
9	<p>Modules:-</p> <p>Module 1: Elementary Arithmetic - I</p> <p>1. Numbers and BODMAS:</p> <ul style="list-style-type: none"> • Review of the number systems (Integers, Whole Numbers, Rational Numbers and Real Numbers) • Review of the basic operations and their results (like odd + even = odd, odd \times even = even, odd raised to even is odd etc) • Easy tricks to do fast calculations (multiplication, squares, square-roots etc) • GCD and CLM of two or more numbers. <p>2. Averages and Percentage:</p> <ul style="list-style-type: none"> • The three different means viz. Arithmetic Mean, Geometric Mean, Harmonic Mean • Properties of the three means, such as (a) AM-GM-HM inequality, (b) The mean of two numbers lies in between the two numbers, (c) In case of several numbers, the product of AM and the number of numbers equals the addition of numbers, (d) In case of several numbers, the product of the numbers equals the GM raised to the number of numbers, (e) The effect of adding the same quantity to each number on AM, (f) The effect of multiplying each number by the same quantity on GM • Percentage <p>3. Ratio and Proportion:</p> <ul style="list-style-type: none"> • Concept of Ratio of two quantities • Ratio related properties such as invertendo, alternendo, componendo, dividendo etc • Direct and Inverse Proportion <p>[The problems to be asked should be of varied levels of difficulty. A few ones based on directly applying a given formula may be asked at the beginning; however, the latter ones should demand critical analysis of the given information and a thoughtful selection of the method/formula to solve the same.]</p> <p>Module 2: Elementary Arithmetic – II</p> <p>1. Profit and Loss:</p> <ul style="list-style-type: none"> • Definitions of Profit and Loss • The concept of Percentage Profit and Percentage Loss <p>2. Time, Speed and Distance:</p> <ul style="list-style-type: none"> • The concept of average speed based on the total distance crossed and the total time taken • The difference between crossing a pole/tower/tree/human and crossing a tunnel/bridge/station • Crossing a stationary object versus crossing a moving object

	<ul style="list-style-type: none"> Moving with/against the current (in a river) <p>3. Work, Pipes and Cisterns:</p> <ul style="list-style-type: none"> Work done in unit time is reciprocal of the total work done (assuming that the amount of work done in each unit time is same), Filling/refilling/emptying cisterns. 													
10	Text Books <ol style="list-style-type: none"> Bible To Basic Mathematics, Pragati Agarwal Quantitative Aptitude for Competitive Examinations, R. S. Agarwal Logical and Analytical Reasoning: Useful for All Competitive Exams, A. K. Gupta 													
11	Reference Books <ol style="list-style-type: none"> Arithmetic : Subjective And Objective For Competitive Examinations, R. S. Agarwal Maths Book For Competitive Exams, Vikas Bhalla Reasoning For Competitive Examinations, Nishit K Sinha 													
	<u>Scheme of the Examination</u>													
	<p>The performance of the learners shall be evaluated into two parts.</p> <ul style="list-style-type: none"> Internal Continuous Assessment of 20 marks for each paper. Semester End Examination of 30 marks for each paper. Separate head of passing is required for internal and semester end examination. 													
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%												
13	Continuous Evaluation through: Quizzes, Class Tests, presentations, projects, role play, creative writing, assignments etc. (at least 3) <table border="1" data-bbox="263 1493 870 1976"> <thead> <tr> <th>Sr. No.</th><th>Particulars</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>1</td><td>A class test of 10 marks is to be conducted during each semester in an Offline mode.</td><td>10</td></tr> <tr> <td>2</td><td>Project on any one topic related to the syllabus or a quiz (offline/online) on one of the modules.</td><td>05</td></tr> <tr> <td>3</td><td>Seminar/ group presentation on any one topic related to the syllabus.</td><td>05</td></tr> </tbody> </table>		Sr. No.	Particulars	Marks	1	A class test of 10 marks is to be conducted during each semester in an Offline mode.	10	2	Project on any one topic related to the syllabus or a quiz (offline/online) on one of the modules.	05	3	Seminar/ group presentation on any one topic related to the syllabus.	05
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3	Seminar/ group presentation on any one topic related to the syllabus.	05												

Vertical 5

AEC

**Communication Skills in
English I**

Sr. No.	Heading	Particulars
1	Description the course: Including but Not limited to:	Communication Skills in English - I (B.A) <p>The English language is an important medium of communication through which one can connect to the global community. It is, therefore, vital that all learners acquire adequate skills in this language. Communication Skills in English is a course that guides the first-year learners to acquire the four skills of communication viz., Listening, Speaking, Reading and Writing.</p> <p>The focus of the syllabus is on building confidence in the learners in applying these skills while using English both academically and socially. Keeping this in mind, the units will have a multi-pronged approach. The course is graded from basic to higher levels of learning so as to help learners gradually acquire the skills. The 30:20 pattern will also help in accomplishing this goal. The activities are designed to focus on oral skill development, while the lectures are aimed at honing their cognitive, analytical, linguistic and creative skills.</p> <p>It is hoped that by the end of the academic year, the learners will have developed confidence in using English language both for oral and written communication as well as develop interest in enhancing these skills later on.</p>
2	Vertical :	Ability Enhancement Course
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks

7	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To enhance English language proficiency of students by familiarizing them with Listening, Speaking, Reading and Writing (LSRW) skills 2. To introduce learners to different perspectives of looking at a text or passage 3. To equip learners in the functional aspects of English so that they use the acquired language skills correctly and confidently 4. To guide learners in the effective use of the digital medium of communication.
8	<p>Course Outcomes:</p> <p>At the end of the course, learners will be able to:</p> <ol style="list-style-type: none"> 1. Understand and interpret any text they are reading from different perspectives. 2. Arouse the interest of learners in listening to and watching good quality audio and visual media. 3. Acquire proficiency in the skills of listening; speaking, reading and writing that will help them meet the challenges of the world. 4. Develop good oral and written skills of communication in the English language.
9	<p>Modules:- Per credit One module can be created</p>
	<p>Module 1: Introduction to Communication Skills, Reading Skills and Listening Skills (15 lectures)</p>
	<p>1. Introduction to Communication Skills</p> <ul style="list-style-type: none"> • English as an international language and varieties of English • Verbal and Non-Verbal Communication • Features of Effective Writing Skills • Characteristics of an Effective Speech • Effective Listening Skills <p>This section provides theoretical base for the following units that are practical in nature.</p> <p>2. Reading Skills:</p> <ul style="list-style-type: none"> • Scanning a text for information • Skimming a passage to look for main ideas, understanding text type • Guessing meaning of an expression (word/phrase/clause) • Building inference skills • Grammar: Tenses, Question Tag, Change the Voice, Framing Interrogative sentence, Synonyms and Antonyms <p>Passages of around 200- 250 words from fables, folk stories, short stories, non-fiction, history, business or environment could be chosen in this section.</p>

	<p>3. Listening Skills</p> <ul style="list-style-type: none"> • Listening for main ideas/Gist • Listening for details • Listening for text organization features • Listening for tone, accent, style and register <p>A variety of relevant audio/visual texts as samples may be drawn from various sources. Listening skills in English should be developed through various activities along with the practice done while teaching in the class.</p>
	<p>Module 2: Speaking Skills and Writing Skills (15 lectures)</p>
	<p>1. Speaking Skills in English</p> <p>i) Public Speaking in English</p> <ul style="list-style-type: none"> • Introduction • Characteristics of an effective speech • Analysis of model speeches • Drafting and presenting a speech in formal and informal gatherings <p>ii) Conversation skills</p> <ul style="list-style-type: none"> • Opening a conversation • Introducing oneself in various contexts • Introducing others formally and informally <p>2. Formal Writing Skills:</p> <ul style="list-style-type: none"> • Job applications with bio data (solicited and unsolicited) • RTI applications • Applications for duplicate documents (I-cards / mark sheet, etc.)
<p>10</p>	<p>Text Books: N.A.</p>

1. Bellare, Nirmala. *Reading & Study Strategies*. Books. 1 and 2. Oxford University Press, 1997, 1998
2. Bellare, Nirmala. *Easy Steps to Summary Writing and Note-Making*. Amazon Kindle Edition, 2020
3. Comfort, Jeremy, et al. *Speaking Effectively: Developing Speaking Skills for Business English*. Cambridge University Press, 1994.
4. Das, Bikram K., et. al. *An Introduction to Professional English and Soft Skills*. Cambridge University Press India Pvt. Ltd., 2010
5. Das, Yadjnaseni & R. Saha (eds.) *English for Careers*. Pearson Education India, 2012.
6. Dimond-Bayir, Stephanie. *Unlock Level 2 Listening and Speaking Skills Student's Book and Online Workbook: Listening and Speaking Skills Student's Book+ Online Workbook*. Cambridge University Press, 2014.
7. Doff, Adrian and Christopher Jones. *Language in Use* (Intermediate and Upper Intermediate). CUP, 2004.
8. Glendinning, Eric H. and Beverley Holmstrom. Second edition. *Study Reading: A Course in Reading Skills for Academic Purposes*. CUP, 2004
9. Goodale, Malcolm. *Professional Presentations Video Pack: A Video Based Course*. Cambridge University Press, 1998.
10. Grellet, F. *Developing Reading Skills*. Cambridge: Cambridge University Press, 1981
11. Grussendorf, Marion. *English for Presentations*. OUP, 2007.
12. Hamp- Lyons, Liz and Ben Heasley. Second edition. *Study Writing: A Course in Writing Skills for Academic Purposes*. CUP, 2006
13. Labade, Sachin, Katre Deepa et al. *Communication Skills in English*. Orient Blackswan, Pvt Ltd, 2021.
14. Lewis, N. *How to Read Better & Faster*. New Delhi, Goyal Publishers & Distributors Pvt. Ltd, 2006.
15. McCarthy, Michael and Felicity O'Dell. *English Vocabulary in Use*. Cambridge: Cambridge University Press, 2001.
16. Mohan, RC Sharma Krishna. *Business Correspondence and Report Writing*. Third edition. Tata McGraw-Hill Education, 2002.
17. Murphy, Raymond, et al. *Grammar in use: Intermediate*. Cambridge University Press, 2000
18. Raman, Meenakshi, and Singh, Prakash. *Business Communication*. India, Oxford University Press, 2006.
19. Richards, Jack C., and Chuck Sandy. *Passages Level 2 Student's Book*. Cambridge University Press, 2014.
20. Sadanand, Kamlesh & S. Punitha. *Spoken English: A Foundation Course*. (Part 1 & 2). Orient Blackswan. 2009.
21. Sasikumar, V., et al. *A Course in Listening & Speaking I*. 2005. Cambridge University Press India Pvt. Ltd. (under the Foundation Books Imprint), 2010

	<p>22. Savage, Alice, et al <i>Effective Academic Writing</i>. Oxford: OUP, 2005</p> <p>23. Sethi, J. <i>Standard English and Indian usage: Vocabulary and grammar</i>. PHI Learning Pvt. Ltd., 2011.</p> <p>24. Taylor, Grant. <i>English Conversation Practice</i>. 1967. Tata McGraw-Hill, 2013</p> <p>25. Turton, Nigel D. <i>A B C of Common Grammatical Errors</i>. 1995. Macmillan India Ltd., 1996</p> <p>26. Vas, Gratian. <i>English Grammar for Everyone</i>. Mumbai, Shree Book Centre, 2015</p> <p>27. Watson, T. <i>Reading Comprehension Skills and Strategies: Level 6</i>. Saddleback Educational Publishing, 2002</p> <p>Web link Resources:</p> <ul style="list-style-type: none"> • A conversation about household appliances: https://youtu.be/rAPI0fSborU 13. • Video on psychology: Why do we dream? https://youtu.be/2W85Dwxx218 • Video on social media: What is a social media influencer? https://youtu.be/39A3og7enz8 • Tips on communication (TED Talk): The Secrets of Learning a New Language https://youtu.be/o_XVt5rdpFY • Expressing opinions: If Cinderella Were a Guy: https://youtu.be/p4OyCNctKXg • Video on the English language: Where did English come from? https://youtu.be/YEaSxhcns7Y 	
12	Internal Continuous Assessment: 40%	<p>External, Semester End Examination 60%</p> <p>Individual Passing in Internal and External Examination</p>
13	<p>Continuous Evaluation through:</p> <ul style="list-style-type: none"> • Performance in activities: 10 marks The class may be divided into batches to conduct the presentations and conversations by creating formal schedule for the same before the semester End Examination. • Participation in classroom during lectures 05 marks Learners' response to teaching and tasks involving Listening skills will be assessed • Overall attendance (lectures) 05 marks Percentage of learners' attendance in class to be considered <p>Suggested Activities:</p> <ul style="list-style-type: none"> • Use of YouTube videos for use of grammar study and practice that may be taken from the list recommended or similar relevant videos. • Listening to audio clips/ books to enhance listening skills • Reading aloud from newspapers, magazines, stories, non-fiction followed by classroom discussion on these to enhance reading and speaking skills • Making short presentations on given topics • Official letter writing/ email writing exercises 	

Vertical 5

VEC

**Environmental Management
&
Sustainable Development -I**

Name of the Course: **Environmental Management & Sustainable Development -I**

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	<p>Environmental awareness transcends academic boundaries. This course transcends academic boundaries, equipping you with a foundational understanding of ecosystems, biodiversity, and the human impact on natural resources and climate. Students will learn about critical issues like pollution and explore solutions for a sustainable future.</p> <p>The knowledge you gain here connects with diverse fields such as biology, economics, and even engineering. It is a foundation for further exploration in environmental science, conservation biology, and environmental policy.</p> <p>This course ignites your interest in environmental issues and opens doors to exciting careers in environmental management, conservation, and sustainable development – fields with growing demand across industries.</p> <p>Prepare for an interactive learning experience through engaging lectures, stimulating group discussions, and insightful case studies examining real-world environmental challenges and solutions.</p>
2	Vertical :	Open Elective
3	Type :	Theory
4	Credit:	2 credits / (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: <ol style="list-style-type: none"> 1. To create and disseminate knowledge to the students about environmental problems at local, regional and global scale. 2. To introduce about ecosystems, biodiversity and to make aware for the need of conservation. 3. To sensitize students towards environmental concerns, issues, and impacts of 	

	<p>human population.</p> <p>4. To prepare students for successful career in environmental departments, research institutes, industries, consultancy, and NGOs, etc.</p>
8	<p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Use principles of Environmental Science for explaining sustainable development and its related ethical concerns 2. Display scientific perspective for issues confronting our present day environment. 3. Analyze the national and global environmental issues relating air, water, soil, and land use, biodiversity, and pollution. 4. Explain the Role of an individual in relation to human population and environmental pollution.
9	<p>Modules:-</p> <p>Unit I: Ecosystems, Biodiversity and Conservation (8 lectures)</p> <p>Introduction, structure, and function of ecosystems; Energy flow: food chains, food webs and ecological succession. Case studies of the following:</p> <ol style="list-style-type: none"> a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) <ol style="list-style-type: none"> 1. Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns 2. India as a mega-biodiversity nation; Endangered and endemic species of India 3. Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. 4. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value. <p>Unit II: Natural Resources and Sustainable Development (7 lectures)</p> <p>Overview of natural resources: Definition of resource; Classification of natural resources- biotic and abiotic, renewable and non-renewable.</p> <p>Biotic resources: Major type of biotic resources- forests, grasslands, wetlands, wildlife and aquatic (fresh water and marine); Microbes as a resource; Status and challenges.</p> <p>Water resources: Types of water resources- fresh water and marine resources; Availability and use of water resources; Environmental impact of over-exploitation, issues and challenges; Water scarcity and stress; Conflicts over water.</p> <p>Soil and mineral resources: Important minerals; Mineral exploitation; Environmental problems due to extraction of minerals and use; Soil as a resource and its degradation.</p> <p>Energy resources: Sources of energy and their classification, renewable and non-renewable sources of energy; Conventional energy sources- coal, oil, natural gas, nuclear energy;</p>
	<p>Non-conventional energy sources- solar, wind, tidal, hydro, wave, ocean thermal, geothermal, biomass, hydrogen and fuel cells; Implications of energy use on the environment.</p> <p>Introduction to sustainable development: Sustainable Development Goals (SDGs)-</p>

	targets and indicators, challenges and strategies for SDGs.
	Unit III: Human Communities and the Environment (8 lectures)
	<ol style="list-style-type: none"> 1. Human population growth: Impacts on environment, human health and welfare. 2. Resettlement and rehabilitation of project affected persons; case studies. 3. Disaster management: floods, earthquake, cyclones and landslides. 4. Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan. 5. Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. 6. Environmental communication and public awareness, case studies (e.g. CNG vehicles in Delhi).
	Unit IV: Environmental Issues; Local, Regional, and Global (7 lectures)
	<p>Environmental issues and scales: Concepts of micro-, meso-, synoptic and planetary scales; Temporal and spatial extents of local, regional, and global phenomena.</p> <p>Pollution: Impact of sectoral processes on Environment, Types of Pollution- air, noise, water, soil, municipal solid waste, hazardous waste; Transboundary air pollution; Acid rain; Smog.</p> <p>Land use and Land cover change: land degradation, deforestation, desertification, urbanization.</p> <p>Biodiversity loss: past and current trends, impact.</p> <p>Global change: Ozone layer depletion; Climate change.</p>
10	Text Books <ol style="list-style-type: none"> 1. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006. 2. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders. 3. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi. 4. Chiras, D. D and Reganold, J. P. (2010). Natural Resource Conservation: Management for a Sustainable Future. 10th edition, Upper Saddle River, N. J. Benjamin/Cummins/Pearson. 5. John W. Twidell and Anthony D. (2015). Renewable Energy Sources, 3rd Edition, Weir Publisher (ELBS) 6. Singh, J.S., Singh, S.P. & Gupta, S.R. 2006. Ecology, Environment and Resource Conservation. Anamaya Publications https://sdgs.un.org/goals 7. Down to Earth, Centre of Science and Environment ®. 8. Hawkins R. E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay ®. 9. Harper, Charles L. (2017) Environment and Society, Human Perspectives on Environmental Issues 6th Edition. Routledge. 10. Rajagopalan, R. (2011). Environmental Studies: From Crisis to Cure. India: Oxford University Press. 11. Harris, Frances (2012) Global Environmental Issues, 2nd Edition. Wiley-Blackwell.

11	Reference Books <ol style="list-style-type: none"> 1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt. 2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press. 3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge. 4. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
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	5. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons. 6. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent. 7. Warren, C. E. 1971. Biology and Water Pollution Control. WB Saunders. 8. Wilson, E. O. 2006. The Creation: An appeal to save life on earth. New York: Norton. 9. World Commission on Environment and Development. 1987. Our Common Future. Oxford University Press.	
12	Internal Continuous Assessment: 40%	Semester End Examination: 60%
13	Continuous Evaluation through: Quizzes, Class Tests, presentation, project, role play, creative writing, Visits, assignment etc. (at least 4)	
14	Format of Question Paper: for the final examination For OE: External - 30 Marks (2 Credits) Internal - 20 Marks Question Paper Format for 30 Marks Format of Question Paper: 30 Marks per paper Semester End Theory Examination: 1. Duration - These examinations shall be of one hour duration. 2. Theory question paper pattern: a. There shall be 04 questions each of 10 marks out of which students will attempt ANY THREE	

Signature:
Prof. Kavita Laghate
Chairman of Board of Studies in Value Education

Vertical 5

IKS

**Indian Knowledge System
Series (Generic) – I**

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	Introduction, relevance, Usefulness, Application, interest, connection with other courses, demand in the industry, job prospects etc.
2	Vertical :	Major/Minor/Open Elective /Skill Enhancement / Ability Enhancement/Indian Knowledge System (Choose By $\sqrt{\quad}$)
3	Type :	Theory / Practical
4	Credit:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: (List some of the course objectives) <ol style="list-style-type: none"> 1. To sensitize the students about context in which they are embedded i.e. Indian culture and civilisation including its Knowledge System and Tradition. 2. To help student to understand the knowledge, art and creative practices, skills and values in ancient Indian system. 3. To help to study the enriched scientific Indian heritage. 4. To introduce the contribution from Ancient Indian system & tradition to modern science & Technology. 	
8	Course Outcomes: (List some of the course outcomes) <ol style="list-style-type: none"> 1. Learner will understand and appreciate the rich Indian Knowledge Tradition 2. Lerner will understand the contribution of Indians in various fields 3. Lerner will experience increase subject-awareness and self-esteem 4. Lerner will develop a comprehensive understanding of how all knowledge is ultimately intertwined 	
9	Modules:-	
	Module 1: (10 Hours)	
	<ol style="list-style-type: none"> 1. Introduction to IKS (What is knowledge System, Characteristic Features of Indian Knowledge System) 2. Why IKS? (Macaulay's Education Policy and its impact, Need of revisiting Ancient Indian Traditions) 3. Scope of IKS (The Universality of IKS (from Micro to Macro), development form Earliest times to 18th Century CE) 4. Tradition of IKS (Ancient Indian Education System: Home, Gurukul, Pathashala, Universities and ancient educational centres) 5. Relevant sites in the vicinity of the Institute (Water Management System at Kanheri, Temple Management of Ambarnath, etc.) 	

	Module 2: (10 Hours)	
	1. Medicine (Ayurveda) 2. Alchemy 3. Mathematics 4. Logic 5. Art of Governance (Arthashastra)	
	Module 3: (10 Hours) (Select Any FIVE out of the following)	
	1. Aesthetics 2. Town Planning 3. Strategic Studies 4. Krishi Shastra 5. Vyakaran & Lexicography 6. Natyashastra 7. Ancient Sports 8. Astronomy	9. Yoga and Wellbeing 10. Linguistics 11. Chitrasutra 12. Architecture 13. Taxation 14. Banking 15. Trade and Commerce
10	Reference Books 1. Concise history of science in India- D.M. Bose, S.N Sen, B.V. Subbarayappa. 2. Positive sciences of the Ancient Hindus- Brajendranatha seal, Motilal Banrasidas, Delhi 1958. 3. History of Chemistry in Ancient India & Medieval India, P.Ray- Indian Chemicals Society, Calcutta 1956 4. Charaka Samhita- a scientific synopsis, P. Ray & H.N Gupta National Institute of Sciences of India, New Delhi 1965. 5. MacDonnell A.A- History of Sanskrit literature 6. Winternitz M- History of Indian Literature Vol. I, II & III 7. Dasgupta S.N & De S.K- History of Sanskrit literature Vol. I. 8. Ramkrishna Mission- cultural heritage of India Vol. I, II & III. 9. Majumdar R. C & Pushalkar A.D- History & culture of the Indian people, Vol. I, II & III. 10. Keith A.B- History of Sanskrit literature. 11. Varadachari V- History of Sanskrit literature Chaitanya Krishna- A new History of Sanskrit	
11	Continuous Internal Assessment: 20 Marks	Semester End Examination : 30 Marks
12	Continuous Evaluation through: Assignment/ Presentations/ Projects (Group/Individual) / Field Visit Report 10 Marks, class Test / MCQ Test 5 Marks, Overall Conduct and Class Participation 5 Marks	
13	Format of Question Paper: for the final examination Q1. Attempt any TWO Questions out of FIVE. 6 Marks Q2. Attempt any THREE Questions out of SIX 12 Marks Q3. Attempt any THREE Questions out of SIX. 12 Marks	

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Dean
Faculty of Interdisciplinary Studies
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Interdisciplinary Studies
Name of the Faculty

Vertical 6

CC

National Service Scheme

UNIVERSITY OF MUMBAI

Semester I

NSS CC

Sub: - Introduction to National Service Scheme

Credits: 02

Marks:50

Unit Number	SEMESTER 1 Title of the Unit	No. of Lecture
1	Introduction to National Services Scheme NSS- History,Philosophy & Need of Emergence Aims, Objectives, Motto and Emblem of NSS, NSS Theme Song Organizational Structure of NSS-Hierarchy at different levels (National,State,University,College) Roles and Responsibilities of Program Officer Financial Provisions -Grant in Aid for NSS Advisory committees & their functions	15
2	NSS Programmes and Activities (Regular activities) NSS Programmes and Activities (Special Camp activities) Yearly Action Plan of NSS Unit Volunteerism– Meaning, definition, basic qualities of volunteers, need of volunteerism for National development. Opportunities in NSS for Volunteers (Various Camps) Report Writing	15

References:

1. National Service Scheme Manual 2006, Government of India
2. Salunkhe P.B. Ed, Chhtrapati Shahu the Pillar of Social Democracy
3. National Service Scheme Manual, Govt. of India
4. Training Programme on National Programme Scheme TISS
5. Orientation Courses for N.S.S. Programme Officers, TISS
6. Hans Gurmeet, Case Material as a Training Aid for Field Workers
7. Tarachand, History of the Freedom Movement in India Vol.II
8. Kapil K. Krishan, Social Service Opportunities in Hospitals (TISS)
9. Ram, Social Problems in India.
10. Arnold, K. (2018). What is R.E.S.P.E.C.T. When it comes to teamwork? Available at: <https://www.extraordinaryteam.com/what-is-r-e-s-p-e-c-t-when-it-comes-to-teamwork/>
11. Barnard, I. C. (1938). Functions of the Executive. Boston: Harvard Press.
12. Barrett, R. (2013). The Values-driven Organisation: Unleashing Human Potential for Performance and Profit. London: Fulfilling Books
13. Barret Values Center (2018). Values-based leadership. Available at: <https://www.valuescentre.com/mapping-values/leadership/values-based-leadership>
14. Bauman, D. C. (2013). Leadership and the three faces of integrity. The Leadership Quarterly, 24(3), 414-426.
15. Bishop, W. H. (2013). Defining the Authenticity in Authentic Leadership. The Journal of Values-Based Leadership, 6(1), Article 7. Available at : <https://scholar.valpo.edu/cgi/viewcontent.cgi?article=1077&context=jvbl>
16. Bourne, P. A. (2016). Leadership as a service: a new model for higher education in a new century – a bookreview. Review of Public Administration and Management, 4, 196. Available at: <https://www.omicsonline.org/open-access/leadership-as-a-service-a-new-model-for-higher-education-in-a-newcentury--a-book-review-2315-7844-1000196.php?aid=83165>
17. Cameron, K. (2008). Positive Leadership. San Francisco: Berret-Koehler.
18. Clarke, S. (2018). Why your values are key to your leadership. Leaderonomic.com Available: <https://leaderonomics.com/leadership/values-key-leadership>
19. Clarke, N. (2011). An integrated conceptual model of respect in leadership

Vertical 6

CC

**Introduction to Sports,
Physical literacy, Health
and
Fitness and Yoga**

Introduction to Sports, Physical literacy, Health and Fitness and Yoga

1.10 Course Structure

Credits: 02

Lectures: 30

Unit

Marks: 50

Number	Title of the Unit	No. of Lecture	No. of Credits
1	Introduction to Sports, Physical Literacy, Health & fitness and Yoga 1.1 Meaning and Definition of Sports, Physical Literacy, Health & Fitness and Yoga 1.2 Aim, Objectives & Importance of Sports, Physical Literacy, Health & Fitness and Yoga 1.3 History of Sports, Physical Literacy, Physical Education and Yoga 1.4 Modern trends of Sports, Physical Literacy, Health & Fitness and Yoga	15	1

2	Introduction to Structure of Sports associations, Fitness Training & Yogic Asanas 2.1 Various government schemes, awards and famous sports personalities 2.2 Sports Structure of Sports Federations, Khelo India, Sports Tournaments of University of Mumbai and Indian Olympic Association 2.3 Fundamental Principles of Fitness training and Yoga 2.4 Components of health related and skill related physical fitness 2.5 Types of Yogic practices – Asanas, Pranayama and Meditation	15	1
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References –

1. Bucher, C. A. (n.d.) Foundation of physical education. St. Louis: The C.V. Mosby Co. Deshpande, S. H. (2014). Physical Education in Ancient India. Amravati: Degree college of Physical education.
2. Mohan, V. M. (1969). Principles of physical education. Delhi: Metropolitan Book Dep. Nixon, E. E. & Cozen, F.W. (1969). An introduction to physical education. Philadelphia: W.B. Saunders Co.
3. William, J. F. (1964). The principles of physical education. Philadelphia: W.B. Saunders Co.
4. Coalter, F. (2013) Sport for Development: What game are we playing? .Routledge.
5. Singh Hardayal (1991), Science of Sports Training, DVS Publication, New Delhi
6. Muller, J. P.(2000). Health, Exercise and Fitness. Delhi : Sports.
7. Russell, R.P.(1994). Health and Fitness Through Physical Education. USA : Human Kinetics.
8. Uppal, A.K. (1992). Physical Fitness. New Delhi : Friends Publication.
9. Nagendra, H. R. & Nagarathna, R. (2002). Samagra Yoga Chikitse. Bengaluru: Swami Vivekananda Yoga Prakasana.
10. Kumar, Ajith. (1984) Yoga Pravesha. Bengaluru: Rashtrothanna Prakashana.
11. D.M Jyoti, Yoga and Physical Activities (2015) lulu.com3101, Hills borough, NC27609, United States
12. D.M Jyoti, Athletics (2015) lulu.com3101, Hills borough, NC27609, United States
13. Gharote, M. L. & Ganguly, H. (1988). Teaching methods for yogic practices. Lonawala: Kaivalyadhama.
14. Pinto John and Roshan Kumar Shetty (2021) Introduction to Physical Education, Louis Publications, Mangalore
15. Shekar, K. C. (2003). Yoga for health. Delhi: Khel Sahitya Kendra.
16. Amit Arjun Budhe, (2015) Career aspects and Management in Physical Education, Sports Publication, New Delhi
17. Pinto John and Ramachandra K (2021) Kannada Version, Daihika Shikshanada Parichaya, Louis Publications, Mangalore

Vertical 6

CC

**Introduction to Cultural
Activities**

Aims and Objectives

- To study the importance of cultural activities in India.
- To discuss the historical importance of cultural activities.
- To define and describe the overview of cultural practices at Indian and Global level.
- To list the various forms of cultural activities and its applied skills.
- To describe the role of organizations for organizing cultural activities in India.

Learning Outcomes

- Understand the significance of cultural activities
- Sensitize students towards Indian culture and its preservation
- Apply the knowledge and skills of the cultural activities in their practical life
- Participate in the various cultural activities

Modules at Glance Semester I

Module No.	Unit	Content	No. of Hours
1	I	Overview to Cultural Activities	05
	II	History of Student Cultural Activities	05
2	III	Forms / Types of Literary and Fine Arts Activities and its Applied Skills	10
	IV	Forms / Types of Performing Arts Activities and its Applied Skills	10
Total No. of Hours			30

Module No.	Unit	Content	No. of Hours
1	I	1.1 Overview to Cultural Activities <ul style="list-style-type: none">• Definition of culture and its manifestations• Understanding cultural diversity and inclusivity• The role of cultural activities in preserving heritage• Overview of Indian cultural practices• Overview of global cultural practices	05
	II	2.1 History of Student Cultural Activities <ul style="list-style-type: none">□ Role of student cultural activities□ History of student cultural activities in India	05

		<ul style="list-style-type: none"> • Role of AIU in preserving cultural heritage of India • History of student cultural activities in Maharashtra • Student Cultural activities at University of Mumbai 	
2	III	<p>3.1 Forms / Types of Literary and Fine Arts Activities and its Applied Skills</p> <p>3.1.1 Various Forms of Literary Arts</p> <ul style="list-style-type: none"> • Elocution: Reading Skills, Soft Skills, Languages, Communication Skills, etc. • Debate: Reading Skills, Soft Skills, Languages, Communication Skills, etc. • Story Writing: Introduction, Plot, Characterization, Presentation, Relevance, Language Style, etc. • Story Telling: Introduction, Plot, Characterization, Presentation, Relevance, Language Style, etc. • Quiz: General Knowledge skills <p>3.1.2 Various Forms of Fine Arts</p> <ul style="list-style-type: none"> • Painting: Visualization, Delivery of the Subject, Composition, Colour Application, Presentation and Overall Impact • Collage: Visualization, Delivery of the Subject, Handling of Medium, Composition, Presentation and Overall Impact • Poster Making: Visualization, Delivery of the Subject, Presentation, Tagline and Overall Impact • Clay Modeling: Visualization, Delivery of the Subject, Handling of Medium, Composition, Presentation and Overall Impact • Cartooning: Visualization, Delivery of the Subject, Characters, Synchronization, Colour Application, Composition, Presentation and Overall Impact • Rangoli: Visualization, Delivery of the Subject, Colour Scheme, Elements, Presentation and Overall Impact • Mehendi Designing: Originality, Creativity, Decorative Art with Aesthetic Sense, Presentation and Overall Impact 	10

		<ul style="list-style-type: none"> • Spot Photography: Impact, Composition, Technical Quality and Suitability for the Specific Theme • Installation: Visualization, Delivery of the Subject, Handling of Medium, Synchronization, Composition, Presentation and Overall Impact 	
	IV	<p>4.1 Forms / Types of Performing Arts Activities and its Applied Skills</p> <p>4.1.1 Various Forms of Dance</p> <ul style="list-style-type: none"> • Folk Dance: History and Origin of Folk Dance In India, Types and their Uniqueness, Significance of Folk Dance, Folk Dances in Maharashtra • Classical Dance: History of Classical Dance, Types and their Peculiarities, Significance of Classical Dances in India <p>4.1.2 Various Forms of Theatre</p> <ul style="list-style-type: none"> • History of Indian Theatre • Types and their Uniqueness • Significance of Indian Theatre • Various Forms of Theatre: One Act Play, Skit, Mime, Mimicry <p>4.1.3 Various Forms of Music</p> <ul style="list-style-type: none"> • History of Indian Music, • Types and their Uniqueness, • Significance of Music in India • Various Forms of Music: Classical Singing, Light Vocal, Percussion, Non-Percussion, Nattasangeet, Western Vocal, Western Instrumental 	10

Scheme of Evaluation

The Scheme of Examination shall be of 50 marks. It will be divided into Internal Evaluation (20 marks) and Semester End Examination (30 Marks).

Semester I (50 Marks, 2 Credits) Internal Evaluation (20 Marks)

Sr. No.	Particulars	Marks
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1	Presentation OR Project OR Assignment	15
2	Participation in Workshop / Conference / Seminar (as decided by the Teacher) OR Participation in Online Workshop / Conference / Seminar (as decided by the Teacher) OR Field Visit OR Attendance	5
Total		20

Semester End Examination (30 Marks)

Question No.	Particulars	Marks
1	Objective Type Questions (All Units)	6
2	Descriptive Question(s) on Unit I [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
3	Descriptive Question(s) on Unit II [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
4	Descriptive Question(s) on Unit III [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
5	Descriptive Question(s) on Unit IV [This question may be divided into sub questions like (a) (b) for 3 Marks + 3 Marks or 4 Marks + 2 Marks pattern]	6
Total		30

Reference Books

- 1) Rabindranath Tagore, The Centre of Indian Culture. Rupa and Co, India, 2017.
- 2) Chopra, J. K. Indian Heritage and Culture. Unique Publisher, India, 2013.
- 3) Patnaik Devdatta, Indian Culture, Art and Heritage. Pearson, India, 2021.
- 4) Cassady Marsh, An Introduction to the Art of Theatre: A comprehensive text- Past, Present and Future. Colorado Springs, Colo, 2017.
- 5) Pingle Bhavanrav A., History of Indian Music: with particular reference to theory and practice, Dev Publishers and Distributors, India, 2021.
- 6) Popley Herbert A., The Music of India. Central Archaeological Library, New Delhi, 1921.

- 7) Tomory Edith, History of Fine Arts in India and the West. Orient Longman, Mumbai, 1989. 8) Arthur Schopenhauer, The Art of Literature, S. Sonnenschein and co London. 1981.
- 9) M. Keith Booker, A Practical Introduction to Literary theory and Criticism. Routledge.Michigan, 1996.
- 10) Vatsyayan Kapila, Indian Classical Dance. Publications Division, Ministry of Information and Broadcasting, Govt. of India, 1992.
- 11) Phyllia S. Weikart, Teaching folk dance: successful steps. High/Scope Press, Mchigan, 1997.
- 12) Gosvami O., The story of Indian Music, its growth and synthesis. Bombay, New York, Asia Pub. House, 1961.