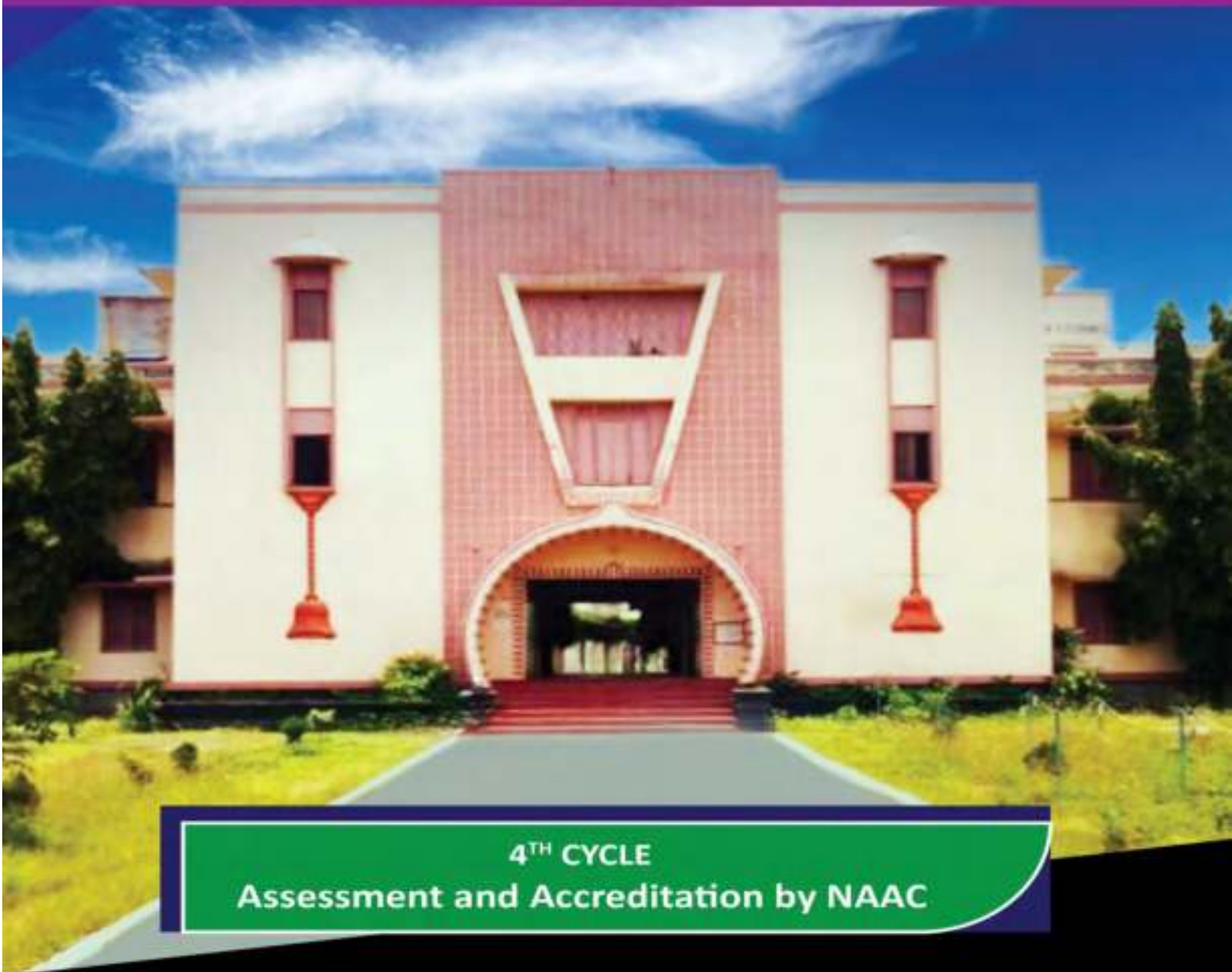




Dhamangaon Education Society's (Hindi Linguistic Minority Educational Institution)

ADARSHA SCIENCE, J. B. ARTS & BIRLA COMMERCE MAHAVIDYALAYA, DHAMANGAON RLY, DISTRICT-AMRAVATI: 444709

NAAC Accredited by B⁺⁺ with C.G.P.A. 2.81 (3rd Cycle)



Criterion-I: Curricular Aspects QIM -1.3.1

Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum



Dhamangaon Education Society's
(Hindi Linguistic Minority Educational Institution)

Adarsha Science, J.B. Arts & Birla Commerce Mahavidyalaya
Dhamangaon Rly., Dist. Amravati, Maharashtra, India-444709



☎ 07222237045 Fax: 07222237087

NAAC RE-ACCREDITED 'B++' GRADE (CGPA 2.81)

e-mail: amvdmn2010@gmail.com

Principal
Dr. Yogendra B. Gandole ☎ 9421737928 (M) ☎ 07222238085 (R)

e-mail: ygandole@gmail.com

No.

Date:

21/12/2022

Declaration

The information, reports, true copies of the supporting documents, numerical data, etc. furnished in this file is verified by IQAC and found correct.

Hence this certificate.



Dr. Anand G. Naranje
IQAC Coordinator
IQAC Co-ordinator
Adarsha Sci. J. B. Arts and
Birla Commerce College
Dhamangaon Railway



Dr. Yogendra B. Gandole
Chairman, IQAC & Principal
Adarsha Mahavidyalaya,
Dhamangaon Rly.
PRINCIPAL
Adarsha Science, J.B. Arts
& Birla Comra. Mahavidyalaya:
Dhamangaon Rly.

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3	Syllabus on Gender Sensitization	12-14
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1.3.1 Institution Integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculam

Sr. No.	Name of Department	Class	Semester	Unit No.	Topics/ Contents	Issue Address (Gender sensitization, human values, professional ethics, environment and sustainability)
1	ZOOLOGY	B.Sc. I	I	I	Parasitic protozoan and human diseases	Environment and Sustainability
				VI	Corals, coral-reefs	Environment and Sustainability
				Practicals	Dissections	Environment and Sustainability
			II	VI	Stem Cells	Professional Ethics
				III	Gametogenesis: Spermatogenesis and oogenesis	Gender Sensetization, Human Values, Professional Ethics
					Fertilization	Gender Sensetization, Human Values, Professional Ethics
				VI	Parthenogenesis	Gender Sensetization
					Stem cells	Human Values, Professional Ethics
		B.Sc. II	III		Parental care in amphibia	Human Values
					snake venom and anti-venom	Environment and Professional Ethiccs
					Darwinism.Lamarckinsm	Human Values
			IV		Sex Determination, Gynandomorphs, consanguinious marriages, Birth Control Methods	Gender Sensetization, Human Values, Professional Ethics
				IV, V, VI	Ecology	Environment and Sustainability
		B.Sc. III	V		ABO Blood Group System, Reproductive Physiology	Human Values
					Aquaculture	Professional Ethics, Environment, Sustainability
				V	Agricultural Zoology	Professional Ethics, Environment, Sustainability
			VI	VI	Biotechnology, Cloning, Monoclonal Antibodies	Professional Ethics
2	Political Science	B. A -I	I	1	Preamble - Nature & Importance	human Values
		B. A. -I	I	1	Fundamental Rights	Gender Sensitization
		B. A. -I	I	1	Fundamental Duties	Environment and Sutainabiliy
		B. A. -III	VI	1	Thoughts of M. K. Gandhi	human values, Gender Sensitization

		B. A. -III	VI	2	Thoughts of Dr. B. R. Ambdekar	human values, Gender Sensitization
		B. A. -III	VI	3	Thought of Swami Vivekanand	human values, Gender Sensitization
3	Sanskrit	B.A. I	Sem-2	Neeti Shatkam	Human Duties and Responsibilities	Ethics & Moral
		B.A. II	Sem -3/4	Meghdutam	Environmental studies	Human Values
4	HISTORY	B.A. I	I	1	Buddhas Teaching	Gender , Human Vaives, Environment and Sustainability
				2	Ashokas Dhamma	Gender, Human Values
		B.A. II	III	5	Political, Judicial Administration of Maratha	Gender, Human Values
					Shivkain Water Management	Environment
		B.A. III	IV	5	The League of Nations	Gender, Human Values,
				6	United Nations Organization	Gender, Human Values, Environment and Sustainability
5	Economics	B.A. I	I	5	Definition of Economics written by Marshall	Human Values
					Perfect Competition	Professional Ethics
					Concept of Weges	Gender Sensitization
					Entrepreneur	Professional Ethics
					Labour	Gender Sensitization
					Monopoly Market	Professional Ethics
		B.A. I	II	5	Population - Sex Ratio	Gender Sensitization
					Migration of Population	Environment
					Urbanization	Human Values
					Lands Reforms	Sustainability
					Green Revolution	Sustainability
					Farmer's Suicides	Human Values
					Backlog of Vidarbha	Sustainability
					Development of Infrastructures	Sustainability
		B.A.II	III	5	Inflation Effect	Human Values
					Deflation Effect	Human Values
		B.A.II	IV	5	International Trade	Professional Ethics
					Cooperative Societies	Professional Ethics
					Word Trade Organization	Professional Ethics
		B.A.III	V	5	Economic Planning	Sustainability
					Agricultural Marketing	Human Values
		B.A.III	VI	5	Trade Union	Human Values
					Environment	Environment
					Global Warming	Environment
6	Commerce	B.Com I	I	1	J.K. Mehta Definiton of Economics	Sustainability & Human Values
					Amerty Sen Definiton of Economics	Sustainability & Human Values
					Organisation & Motivation	Professional Ethics
					Management Thoughts	Professional Ethics & Human Values
		B.Com I	II	5	Labour	Professional Ethics & Human Values
		B. Com. I	I	2	The World is Too Much With Us	Human Values, Ethics

7	English	B. Com. I	I	2	Once Upon a Time	Human Values
		B. Com. I	II	1	Each is Great in His Own Place	Human Values
		B. Com. I	II	1	Prospects of Democracy in India	Human Values, Gender Sensitization
		B. Com. II	III	1	The Struggle for Education	Human Values
		B. Com. II	III	2	Where the Mind is without Fear	Human Values
		B. Com. III	V	1	Ratan Tata	Human Values
		B. Com. III	V	1	Steve Jobs	Professional Ethics
		B. Com. III	V	2	It is Needless to ask the Saint the Caste to which He Belongs	Human Values
		B. Com. III	VI	1	Muhammad Yunus	Human Values
		B. Com. III	VI	2	To Autumn	Environment
		B. Sc. I	I	1	A Simple Philosophy	Environment, Human Values
		B. Sc. I	II	1	Hazards of Food Colouring	Environment, Sustainability
		B. Sc. I	II	2	The Quality of Mercy	Human Values
		B. A. I	I	1	Education Provides A Solid Foundation	Professional Ethics
		B. A. I	I	1	Love Story	Environment
		B. A. I	I	1	Speech on Indian Independence	Human Values
		B. A. I	II	1	Values in Life	Human Values
		B. A. I	II	1	Appro JRD	Professional Ethics
		B. A. II	III	1	India's Message to the World	Human Values
		B. A. II	III	2	Leisure	Sustainability
		B. A. II	IV	2	Up-hill	Environment, Human Values
		B. A. III	V	1	A Letter to His Son	Human Values
		B. A. III	V	1	The Mountain and the Squirrel	Environment
		B. A. III	VI	2	The Solitary Reaper	Environment

English
CLASS/SEM B.COM.-III
SEM-V
PROFESSIONAL ETHICS
PROSE:1 RATAN TATA 2 STEVE JOBS

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Appendix - A

B.Com. III
Semester- V
Compulsory English

Time: 2 Hours

Marks: 40

Prescribed Textbook : Horizons by Board of Editors Published by Orient Blackswan.

CONTENTS

UNIT I : PROSE		
SR. NO.	PROSE	AUTHOR
1	Ratan Tata	
2	Steve Jobs	
3	Vijay Bhutkar	
4	Black Money and the Black Economy	C. Rammanohar Reddy
UNIT II : POETRY		
1	A Red, Red Rose	Robert Burns
2	It is needless to ask the saint the caste to which he belongs	Kabir
3	Love's Philosophy	P.B. Shelly
4	The Garden	Andrew Marvell
UNIT III : BUSINESS COMMUNICATION		
Computer Technology & Recent Concepts in Business		
✓ Paperless office		
✓ Video Conferencing		
✓ E-Banking		
Communication Skills		
✓ Public Speaking (Strategies for Effective Speaking, Types of Speeches)		

MARKING SCHEME

UNIT I: Prose : Any THREE out of FOUR Questions (3 x 4 = 12 Marks)

UNIT II : Poetry : Any THREE out of FOUR Questions (3 x 4 = 12 Marks)

UNIT III : Business Communication :

Any TWO out of THREE Questions (2 x 4 = 8 Marks)

8 Multiple Choice Questions on Unit I & II (8 x 1 = 8 Marks)

INTERNAL ASSESSMENT :

Seminar Skill : 5 Marks.

Home Assignment : 5 Marks

Commerce
Professional Ethics
ACCOUNTS

35

2. COMMERCE DISCIPLINE
(i) CORPORATE ACCOUNTING

Time : 3 Hours

Marks : 70

Objective: This course enable the students to develop awareness about corporate accounting in conformity with the provisions of Companies Act.

Unit-I	Issue, Forfeiture and Re-issue of shares.
Unit-II	Final Accounts of Company : Manufacturing Account, Trading Account, Profit & Loss Account, Profit & Loss Appropriation Account & Balance sheet with Adjustment.
Unit-III	3.1 Liquidation of Company. 1.2 Valuation of Goodwill and shares.
Unit-IV	4.1 Amalgamation and Absorption of Companies. 1.2 Profit prior to incorporation.
Unit-V	Funds Flow Statement : Concept of Fund, What is flow of Fund, Rules of Fund flow statement, Schedule of changes in working capital, Statement of sources and Application of Fund.

BOOKS RECOMMENDED :

- Gupta R.L., Radhaswamy M : Company Accounts; Sultan Chand and Sons, New Delhi.
- Maheshwari S. N. : Corporate Accounting; Vikas Publishing House, New Delhi.
- Monga J. R., Ahuja, Girish, and Sehgal Ashok : Financial Accounting; Mayur Paper Back, Noida.
- Shukla M. C., Grewal T. S. and Gupta S. C. : Advanced Accounts; S. Chand & Co., New Delhi.
- Moore C. L. and Jaedicke R. K. : Managerial Accounting; South Western Publishing Co., Cincinnati, Ohio.
- R.R.Gupta : Advanced Accountancy.
- Dr.Medha Kanetkar, Dr.D.R.Baheti : Corporate Accounting -Shri Sainath Prakashan, Nagpur.

हिन्दी :

- गुप्ता : एडवान्स् एकाउन्ट्स.
- जे.के.अग्रवाल : बृहत् लेखाकर्म.

प्रा.लांजेवार, गुल्हाने, कडु : लेखाकर्म भाग-१ : संगम प्रकाशन.

नाथ, लांजेवार, भागवत : उच्च लेखाकर्म भाग-१ : महाराष्ट्र राज्य ग्रंथ निर्मिती मं.

प्रा.ए.एस.उखळकर : उच्च लेखाकर्म भाग-१ : विद्या प्रकाशन.

रोडे, स्मार्थ, डोन्बरे : प्रथम वर्ष जमाखर्च - खंड १ : एस.चांद कं.लि.

(III) PRINCIPLES OF BUSINESS MANAGEMENT

TIME : 3 Hours

Marks : 70

Objective- To develop the basic managerial skills among the students to face domestic as well as global business challenges.

Unit I: INTRODUCTORY

- 1.1 Business – Meaning, Nature, Scope & objectives.
- 1.2 Management Concept – Nature, Importance and Process.
- 1.3 Managerial Role & it's importance.
- 1.4 Development of Management Science- F. W. Taylor, Fayol's Contributions.

Unit II: PLANNING

- 2.1 Planning- Concept & process.
- 2.2 Types of Planning.
- 2.3 Strategic planning- Meaning and Formulation.
- 2.4 Decision Making- Definition & process.

Unit III: ORGANIZING

- 3.1 Organizing- Concept & nature.
- 3.2 Authority and Responsibility.
- 3.3 Centralization & Decentralization- Concept, Advantages & Disadvantages.
- 3.4 Organization structure- Forms and contingency factors.

Unit IV: DIRECTING

- 4.1 Motivation - Meaning, Importance, Type of Motivation, Maslow theory.
- 4.2 Incentive- Concept, Financial and Non financial Incentives.
- 4.3 Moral - Meaning and importance.
- 4.4 Communication- Meaning, Verbal and Non verbal Communication, Barriers to communication.

Unit V: CONTROLLING

- 5.1 Concept and process of control.
- 5.2 Techniques of controls.
- 5.3 Effective Control Systems
- 5.4 Leadership- Concept, Theories and style.

Reference books:

- * Management Concept and Practices, by Manmohan Prasad, Himalaya Publishing House
- * Essentials of Management by Wehrich and Koonts. Tata McGraw Hill.
- * Management Concept & Principles, by Manmohan Prasad, Himalaya Publication.
- * Management by Stonel & Foceman. Prentice Hall of India.
- * Fundamentals of Management by Robbins. Pearson Education.
- * Management Principles and Practices, by Prasad, Lallan & Gulshan.S.Chand.
- * व्यवसाय व्यवस्थापनाचे सिध्दांत - Prof. S.M.Kolte, Pimpalapur & Co. Publishers, Nagpur.
- * व्यवसाय प्रबंधनाची मुलतत्वे : डॉ. आनंद दत्तात्रय भोसले - नम प्रकाशन, शाम नगर, अमरावती.
- * Principles of Business Management : L.N. Chopde, D.H. Choudhary, Dr. Raju L. Rathi - Sheth Publishers Pvt. Ltd. Mumbai-31

(IV) COMPUTER FUNDAMENTALS AND OPERATING SYSTEM

Time:3 Hours

Marks:100

(60 Marks for theory + 40 Marks for Practical)

Objective: The objectives of this course are to provide basic information of computer, Word Processing and Presentation.

Unit-I	Fundamentals of Computer : Introduction: Definition of Computer, Evolution of Computer, Characteristics of Computer, Generations of Computer, Types of Computer (By Logic and By size). Basic Computer Organization : Computer Block Diagram, Input Unit, Output Unit and CPU: Memory Unit, Arithmetic Unit, Control Unit.
Unit-II	Storage : Primary Storage : Concept of Memory, RAM: Read-Write: SRAM, DRAM; Read-Only: ROM, PROM and EPROM. Secondary Storage : Concept of Secondary Storage, Secondary Storage, Devices: Magnetic Tape, Magnetic Disk, Floppy Disk, Hard disk, Compact disk, Optical Disk, Pen drive, Memory card, Data Card. Software : Concept of Software, Types of Software : Application Software & System Software. Languages : Concept of Computer Languages, Machine Language, Assembly Language, High Level Language, 4 th Generational Languages.

Unit-III	Operating System : Concept of Operating System.
	MS-DOS : Introduction to MS-DOS, MS-DOS Commands : Internal Commands : DIR, COPY, DEL, TYPE, REN, CD, MD, RD, PROMPT, COPY CON; External Commands : FORMAT, DISKCOPY, X-COPY, BACK UP, RESTORE, CHKDSK, PATH, ATTRIB, EDIT.
	Window : Window XP/Vista : Introduction to Windows, Features of Windows, Types of Windows : Application Window, Document Window & Dialog box, Desktop, Icons : My Computer, My Documents, Recycle Bin, Internet Explorer, Task Bar, Properties, Management of the Files & Folders.
Unit-IV	MS Word 2003/2007/Higher : Concept of Word processing, Working With MS-WORD: MS-Word Screen, Working with Menus, Creating and Saving Document, Formatting Text and Document Setup, Header & Footer, Creating tables and chart, Inserting Clip Arts, Links, Text Box, Word Arts, Drop Cap, Mail Merge, Printing a Document.
Unit-V	Ms PowerPoint 2003/2007/Higher : Concept of Presentation, MS-PowerPoint Screen, Creating, Saving and Opening presentations, Adding text, Clips & Word Art to Slides, Working with different Slide Views, Background features, Gallery, Color Layout, Slide Effects & Slide Show, Saving and Printing.

BOOKS RECOMMENDED :

1. Fundamentals of Computers-V Rajarman (PHI)
2. Computer Fundamentals- B.Ram (WE)
3. Introduction to IBMPC & Applications-Taxali.
4. MS-OFFICE (PHI)
5. MS-OFFICE (BPB)
6. MS-OFFICE (TMH)
7. Yeats: Systems Analysis & Design; Macmillan India, New Delhi.
8. Basics of Computer and Business Mathematics, By Dr. Rajiv Ashtikar, Dr.Santosh Sadar and Prof. Vilas Chopade: Payal Prakashan, Nagpur.
9. Computer Fundamentals & Operating System : Supriya Bhagade-Pimpalapur & Co. Pub., Nagpur.
10. संगणक मूलतत्वे आणि चलन प्रणाली- Prof. S.M. Kolte, Pimpalapur & Co. Publishers, Nagpur.

English

CLASS/SEM B. COM. II SEM IV

GENDER SENSITIZATION

PROSE 2 : FLORENCE NIGHTINGALE : LYTTON STRACHEY

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Unit V Formulas, Functions and Chart in Excel:
Introduction to Formulas, Functions and Categories of Functions.
Working with Common Excel Functions: TODAY, DATEDIF, NOW, UPPER, LOWER, PROPER, CONCATENATE, AVERAGE, MAX, MIN, COUNT, COUNTBLANK, COUNTIF, SUM, SUMIF, AUTOSUM, IF
Chart in Excel: Introduction, Types, Creating and formatting a Chart Displaying, Saving & Printing.

Books Recommendation:

- * Microsoft Office Excel 2007 Free Text Book at BOOKBOON.COM
- * Curtis D. Fry "Microsoft Excel 2007 Step by Step" Published by Microsoft Press
- * MS OFFICE (BPB)
- * Pradeep K. Sinha and Priti Sinha's "Fundamentals of Computing" BPB Publication.
- * Alexis Leon and Mathews Leon's Fundamentals of Information Technology "Published by Leon Vikas."
- Practical Based on Microsoft Excel

Appendix - M

**B.Com Part-II
SEMESTER-IV
ENGLISH (COMPULSORY)**

Time :- 2 Hours

Marks :- 40

i) Text Prescribed -

Impressions

(An Anthology of Prose and Poetry) Published by Raghav Publishers & Distributors, Nagpur.

Unit-I :- Prose

- | | | |
|--------------------------|---|------------------|
| 1) The Town Week | - | F.V. Lucas |
| 2) Florence Nightingale | - | Lyttton Strachey |
| 3) The Girl on the Train | - | Olivia |
| 4) Three Hermits | - | Leo Tolstoy |

Unit-II :- Poetry

- | | | |
|---------------------|---|----------------|
| 1) On His Blindness | - | John Milton |
| 2) Solitude | - | Alexander Pope |
| 3) Still I Rise | - | Maya Angelou |
| 4) Money Madness | - | D.H. Lawrence |

2) Book Prescribed :-

'Synergy'

(Communication in English and Study Skills Ed by Orient Black Swan.
Following chapters from Communication Skills are prescribed :-

- 1) Interview and Interviewing skills.
- 2) Meeting skills
- 3) Nonverbal Communication.

POLITICAL SCIENCE

CLASS/SEM B.A.-I SEM-I

Gender Sensitization

UNIT 5 : I) WOMEN PARTICIPATION IN PANCHYATRAJ OF MAHARASHTRA

-79-

19. भारताष्टातील संघात्मक राजकीय व्यवस्था : डॉ. सुभाष गवई, प्रभात विघे व डॉ. सुनिल रावते; वेदमुद्रा प्रकाशन, अमरावती.
20. भारतीय संविधानिक तरतुदी आणि स्वाभाविक स्वतंत्रता : डॉ. प्रतापराव भवराव, वेदमुद्रा प्रकाशन, अमरावती.

Semester-II (B.A.-I) Indian Constitutional Provisions and Local Self Government

Theory : 80
Int. Ass. : 20

Unit-I Election Commission of India : Structure, Function and Powers.

- Electoral Reform, Recognition of Political Parties.
- Eligibility of Voter – Lok Sabha, Vidhan Sabha and Vidhan Parishad.

Unit-II State Executive

- Governor : Appointment, Powers and Role.
- Chief Minister : Appointment, Role and Function.
- Council of Ministers : Formation, Role and Function.

Unit-III State Legislature of Maharashtra :

- Legislative Assembly (Vidhan Sabha) – Structure, Powers and Function. Speaker of Vidhan Sabha – Powers and Function.
- Legislative Council (Vidhan Parishad) – Structure, Powers and Function.

Unit-IV Local Self Government of Maharashtra :

- Types of Local Self Government (Urban and Rural).
- Municipal Corporation – Structure and Power.
- Gram Panchayat – Structure and Function.
- Gram Sabha – Structure and Function.

Unit-V

- Women's Participations in Panchayati Raj of Maharashtra.
- Support Factors for women's empowerment.
- Right to Information and its Importance.

Distribution of Internal Marks

- | | | |
|------------------------------------|-----|----------|
| i) Seminar | --- | 10 Marks |
| ii) News Papers Cutting Collection | --- | 10 Marks |

Reference Books :

- D.D. Basu : "An introduction to the Constitution of India : New Delhi Prentice Hall, 1994
- Joshi, G.N. : The Constitution of India
- PyLee, M.V. : Indian Constitution
- D.C. Gupta : Indian Government and Politics : Vikas Publication, Bombay.
- प्रा.बी.टी. देशमुख : भारतीय संविधान
- डॉ.प.ल. जोशी : भारतीय संविधान
- प्रा.म.श्रीगुरुपुरे : भारतीय संविधान
- प्रा.म.न.श्रीगुरुपुरे : भारतीय राज्यघटना, स्वतंत्रता आणि राजकारण
- डॉ.आ.ल. मोळे : भारतीय राज्यघटना
- प्रा.रा.म.मुठाक : भारतीय राजकीय व्यवस्था, अंशुल प्रकाशन, नागपूर.
- प्रा.रा.ज. लोटे : भारतीय शासन आणि राजकारण, विधाळापूर अँड कंपनी, पब्लीशर्स.
- प्रा. बी.टी. देशमुख : भारतीय संविधान व स्वातंत्र्य आंदोलन.
- भारताचे शासन आणि राजकारण : प्रा.गै.हराव, डॉ. जोगेंद्र गवई.

Marathi

CLASS/SEM B.A.-II SEM-IV

Gender Sensitization

STRI PURUSH TULANA

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2018 - PART TWO - 153

विभाग ब) इतिहास

१)	आश्विनपंच	राजधर्मदास जगन्नाथ
२)	माझी सधनक वडील	वि. वि. जोशी
३)	दिवस जसे होले	समा. पवार

विभाग क) कविता

१)	संतवाणी	अ) सौदाभाऊ ब) सोपराबाई
२)	अखेर कागडी	कुसुमाकांत
३)	पाचवरे	केदार रोडम
४)	जाल	बीकांत देशमुख
५)	सात बारावी नींद	लक्ष्मण महाडिक
६)	सविता	विद्याजी भगत

विभाग ड) व्यावहारिक मराठी

१)	सकल साक्षा	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण २२ वे	संध्या, केतकी भोडक व इतर, पद्मगंगा प्रकाशन, पुणे
२)	सूचसंचालन	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण २३ वे	

बी. ए. वलम २ - मराठी (आवश्यक)
सत्र - ४

विभाग ख) वैचारिक

१)	स्त्री-पुरुष तुलना	तानाबाई किंदे
२)	आदर्श	डॉ. अश्विनीकुमार शर्मा
३)	विज्ञानयुगात भारता	जयंत तारळीकर

विभाग ग) उल्लिखित

१)	राजकीयशाखा कीर्तनगळे संस्थान	प्रबोधनकार के.वी. ठाकरे
२)	इंग्रजशासकीय योने	अण्णा भाऊ साठे
३)	इंग्रजांची राजकीयने अलमलता आत्मभक्त अरिजनाची जाणीव दिली	विष्णु भागवत

विभाग घ) कविता

१)	संतवाणी	अ) एकनाथ ब) काव्होपाजा
२)	सारेच दीग करी मद्यावले आता	अमिन
३)	विजयगड	संता राजके
४)	आगवाणी	च.सा. पदसलके
५)	पेटू नका देश	विष्णू रफी अहमद शेग
६)	माती	राजेंद्र महाडिक

विभाग ङ) व्यावहारिक मराठी

१)	माहितीपत्रक	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण ९ वे	संध्या, केतकी भोडक व इतर, पद्मगंगा प्रकाशन, पुणे
२)	विमर्शनात्मिक व कार्यक्रमात्मिक	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण १० वे	

ENGLISH
HUMAN VALUES

CLASS/SEM B.A.-I SEM-I

1. PROSE 3 SPEECH ON INDIAN INDEPENDENCE
7. MIDDLE AGE

-2-
YSLAHUS
PRESCRIBED FOR
B. A. - Part I EXAMINATION
Semester I
Compulsory English

TIME : 3 HOURS

MAX MARKS THEORY : 80 MARKS

MAX MARKS INTERNAL ASSESSMENT : 20 MARKS

Prescribed Textbook : *Blooming Rudy* by Board of Editors & published by Orient Blackswan.

UNIT I

PROSE -

1. Education Provides a Solid Foundation - A.P.J Abdul Kalam

2. Education - A.M. Khan

3. Speech on Indian Independence - Jawaharlal Nehru

4. Environment - Satyajeet Ray

UNIT II

POETRY -

5. In the Bazaar of Hyderabad - Sarojini Naidu

6. She Walks in Beauty - Lord Byron

7. Middle Age - Kamala Das

GRAMMAR -

8. Parts of Speech

9. Tenses

UNIT IV

COMMUNICATION SKILLS -

10. Unseen Passage

11. Letter Writing (Personal & Business Letters)

12. Curriculum Vitae (CV)

UNIT V

MULTIPLE CHOICE QUESTIONS -

Based on the prescribed text Unit I & II only.

INTERNAL ASSESSMENT

i) Viva- Voce

a) Personal Interview

b) Seminar

ii) Assignments

a) Making Introduction

b) Greeting People

c) Talking about Family

d) Describing People, Places & Animals

e) Expressing Feelings

f) Inviting, Suggesting, Accepting & Refusing

CLASS/SEM B. A.-I SEM-II
HUMAN VALUES
PROSE 4 VALUES IN LIFE

-9-
SYLLABUS
PRESCRIBED FOR
B. A. - Part I EXAMINATION
Semester II
Compulsory English

TIME : 3 HOURS

MAX MARKS THEORY : 80 MARKS

MAX MARKS INTERNAL ASSESSMENT : 20 MARKS

Prescribed Textbook : Blooming Buds by Board of Editors & published by Orient Blackswan.

UNIT I

PROSE -

1. Appo JRD - Sudha Murthy
2. Packing - Jerome K. Jerome
3. How I became a Public Speaker - G. B. Shaw
4. Values in Life - Rudyard Kipling

POETRY -

5. Money Madness - D.H. Lawrence
6. No men are foreign - James Kirkup
7. Another's sorrow - William Blake

UNIT III

GRAMMAR -

8. Subject, Verb, Agreement
9. Verbs : Forms of to be, do, have and modal auxiliaries

UNIT IV

COMMUNICATION SKILLS -

10. Story building
11. E-Communication : E-Mail, Fax
12. Notices / Agenda / Minutes

UNIT V

MULTIPLE CHOICE QUESTIONS -

Based on the prescribed text Unit I & II only.

F) Internal Assessment

i) Viva- Voce

- a) Reading Skills (Reading aloud - Individual of a passage of about 100 words from the prescribed text)

b) Group Discussion

ii) Assignments

- a) Asking for & Giving Information
- b) Giving Directions
- c) Making Request
- d) Making Offers
- e) Getting & Giving Permissions
- f) Talking about Past Events

CLASS/SEM B.A.-I SEM-II
HUMAN VALUES
POETRY 5 MONEY MADNESS

-9-

SYLLABUS
PRESCRIBED FOR
B. A. - Part I EXAMINATION
Semester II
Compulsory English

TIME : 3 HOURS

MAX MARKS THEORY : 80 MARKS

MAX MARKS INTERNAL ASSESSMENT : 20 MARKS

Prescribed Textbook : *Blooming Buds* by Board of Editors & published by Orient Blackswan.

UNIT I

PROSE -

1. *Apprentice* - Sudha Murthy
2. *Packing* - Jerome K. Jerome
3. *How I became a Public Speaker* - G. B. Shaw
4. *Values in Life* - Rudyard Kipling

UNIT II

POETRY -

5. *Money Madness* - D.H Lawrence
6. *As men are foreign* - James Kirup
7. *Another's sorrow* - William Blake

UNIT III

GRAMMAR -

8. Subject, Verb, Agreement
9. Verbs : Forms of to be, do, have and modal auxiliaries

UNIT IV

COMMUNICATION SKILLS -

10. Story building
11. E-Communication : E-Mail, Fax
12. Notices / Agenda / Minutes

UNIT V

MULTIPLE CHOICE QUESTIONS -

Based on the prescribed text Unit I & II only.

F) Internal Assessment

i) Viva- Voce

- a) Reading Skills (Reading aloud - Individual of a passage of about 100 words from the prescribed text)

b) Group Discussion

ii) Assignments

- a) Asking for & Giving Information
- b) Giving Directions
- c) Making Request
- d) Making Offers
- e) Getting & Giving Permissions
- f) Talking about Past Events

CLASS/SEM B.A.-II SEM-III
HUMAN VALUES
3. PROSE : THE HAPPY PRINCE

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2018 - PART TWO - 139

Appendix-A

**SYLLABUS
PRESCRIBED FOR
B.A - PART II EXAMINATION
SEMESTER III
COMPULSORY ENGLISH**

TIME : 3 HOURS

MAX MARKS THEORY : 80 MARKS

MAX MARKS INTERNAL ASSESMENT : 20 MARKS

Prescribed Textbook : Blossoming Flowers by Board of Editors, Published by Orient Blackswan.

UNIT I

PROSE -

1. India's Message to the World - Swami Vivekanand

3. The Happy Prince - Oscar Wilde

UNIT II

POETRY -

5. Sonnet 116 - William Shakespeare

6. Dirge - James Shirley

7. Leisure - W H Davies

8. A Baby Asleep After Pain - D.H Lawrence

UNIT III

GRAMMAR :

9. Clauses :

- ✓ Main Clause
- ✓ Subordinate Clause (Noun Clause , Adverb Clause , Adjective Clause)

10. Types of Sentences :

- ✓ Assertive/ Affirmative Sentences
- ✓ Exclamatory Sentences
- ✓ Negative Sentences
- ✓ Interrogative Sentences
- ✓ Simple Sentences
- ✓ Compound Sentences
- ✓ Complex Sentences
- ✓ Compound Complex Sentences

UNIT IV

COMMUNICATION SKILLS :

11. Telephone Conversation

- ✓ Answering the Telephone and Asking for Someone
- ✓ Taking and Leaving Messages
- ✓ Making Enquiries on the Phone

12. Interpersonal Conversation

- ✓ Getting People's Attention and Interrupting
- ✓ Making Requests and Responding to Them
- ✓ Asking for Directions and Giving Directions

UNIT V

MULTIPLE CHOICE QUESTIONS

Based on prescribed text Unit I & II only

Internal Assessment :

Viva-Voce

A) Personal Interview

B) Seminar - Presentation (Based on prescribed text : Prose & Poetry)

CLASS/SEM B. A.-III SEM-VI
HUMAN VALUES
PROSE 1. QUALITY

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2019 - PART TWO - 183

UNIT III (16 Marks)

- C) POETRY:** Prescribed Text Sands of Time by Board of Editors & published by Orient Blackswan
i) The students shall have to answer TWO out of THREE questions in Two or Three sentences of 3 marks each. = 6 Marks
ii) The students shall have to answer TWO out of THREE questions in about 100 words of 5 marks each. = 10 Marks

UNIT IV (16 Marks)

WRITING SKILLS

1. **Précis Writing :** i) The students shall have to write a précis of the given paragraph with suitable title for 08 marks
2. **Developing a Thought:** i) The students shall have to develop a thought, choosing one of the two in about 250 words for 08 marks.

UNIT V (16 Marks)

E) Multiple Choice Questions (MCQ)

Based on Unit I, II & III: The students shall have to attempt multiple choice questions = 16 Marks

F) Internal Assessment

i) Viva- Voce = 20 Marks

a) Personal Interview = 10 Marks

b) Seminar - Presentation = 10 Marks

**SYLLABUS
PRESCRIBED FOR
BA - PART III EXAMINATION
SEMESTER VI
COMPULSORY ENGLISH**

TIME : 3 HOURS

**MAXIMUM MARKS THEORY : 80 MARKS
MAXIMU MARKS INTERNAL ASSESSTMENT: 20 MARKS**

Prescribed Textbook: Sands of Time by Board of Editors, Published by Orient Blackswan.

UNIT I

1. **Quality – John Galsworthy**
2. **Miss Helen – Catherine (Anand)**

UNIT II

ESSAYS:

1. **My Financial Career –Stephen Leacock**
2. **Socrates and the Schoolmaster – FL. Brayne**

UNIT III

POETRY:

1. **The Solitary Reaper- William Wordsworth**
2. **Stay Calm -Grenville Kleiser**

UNIT IV

WRITING SKILLS:

1. **Report Writing :** i) The students shall have to write a Report on the given topic in about 250 words for 08 marks
2. **Essay :** i) The students shall have to write an essay, choosing from the four given topics in about 250 words for 08 marks

UNIT V

MULTIPLE CHOICE QUESTIONS

Based on Prescribed Text: Unit I, II & III

Internal Assessment:

Viva- Voce

A) Personal Interview

B) Seminar - Presentation (Based on Prescribed Text : Short Stories, Essay & Poetry)

POLITICAL SCIENCE
Human Values
CLASS/SEM B.A.-I SEM-I
UNIT 1 ii) PREAMBLE – NATURE AND IMPORTANCE

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(11)

Syllabi for B.A. Part-I
Semester-I
Subject : Political Science
(Implemented From 2017-2018 Session)
Indian Constitutional Provisions and Local Self Government

Marks : Theory : 80
In Ass : 20

Unit-I

i) Salient features of the Constitution

ii) Preamble – Nature and Importance.

iii) Fundamental rights – Types and Importance.

Unit-II

i) Directive Principles of State Policy – Nature and Importance

ii) Fundamental Duties.

iii) Methods to acquire Citizenship.

Unit-III

i) President of India : Election Process, Powers and Function.

ii) Vice President : Role and Function.

iii) Prime Minister – Appointment, Role and Function.

Unit-IV

i) Parliament : Lok Sabha and Rajya Sabha – Structure and Powers

ii) Speaker of Lok Sabha – Powers & Function.

Unit-V

i) Structure of Indian Judiciary. Types of Court, Characteristics of Indian Judiciary

ii) Supreme Court of India – Structure, Powers and Function

iii) High Court – Structure, Powers and Function.

Distribution of Internal Marks

i) Seminar	10 Marks
ii) News Papers Cutting Collection	10 Marks

Reference Books :

1. D.D. Basu : "An introduction to the Constitution of India : New Delhi Prentice Hall, 1994
2. Joshi, G.N. : The Constitution of India
3. PyLee, M.V. : Indian Constitution
4. D.C. Gupta : Indian Government and Politics : Vikas Publication, Bombay.
5. प्रा.बी.टी. देशमुख : भारतीय संविधान
6. डॉ.प.ल. जैसली : भारतीय संविधान
7. प्रा.म.भुवनेश्वरपुरे : भारतीय संविधान
8. प्रा.म.ग.सांगरेकर : भारतीय राज्यघटना, स्वरूप आणि राजकारण
9. डॉ.भा.ल. सोळे : भारतीय राज्यघटना
10. प्रा.राज.गुडाळ : भारतीय राजकीय व्यवस्था, अंशुल प्रकाशन, नागपूर.
11. प्रा.रा.ज. लोटे : भारतीय शासन आणि राजकारण, भिवण्डापुरे अखंड क. पब्लीशर्स.
12. प्रा. बी.टी. देशमुख : भारतीय संविधान व स्वातंत्र्य आंदोलन
13. भारतीय शासन आणि राजकारण : प्रा.शं.हाशम, डॉ. जोगेंद्र गवई.
14. भारतीय शासन आणि राजकारण : प्रा.डॉ. अल्पा देशमुख
15. भारतीय राज्यघटनेची संवैधानिक निमाशा : जे. डॉ. वासन् गवई.
16. भारतीय संविधान व शासन व्यवस्था : लेखक - डॉ. साताराम घडगण
17. भारतीय संविधानात्मक तरतुदी आणि वास्तव : लेखक - डॉ. सुभाष गवई
18. भारतीय राज्यघटना : डॉ. डॉ. साताराम घडगण व डॉ. सुभाष गवई, वेदभुदा प्रकाशन, अमरावती

PHYSICS

Environment And Sustainability

5

Reference Books :

1. T. M. Karade, M. S. Bendre : Lectures on Mechanics, Sonu-Nilu Publication, Nagpur.
2. H. Goldstein : Classical Mechanics (2nd edition), Narosa Publishing House, New Delhi.
3. S. L. Loney : Statics, Mc-Millan and co., London.
4. R. S. Verma : A Text Book on Statics, Pothishala Pvt. Ltd. , Allahabad.
5. S. L. Loney : An Elementary Treatise on the Dynamics of a particle and of rigid bodies, Cambridge University Press, 1956.
6. D. K. Daftari, V. N. Indurkar : Elements of Statics, Published by Dattsons, J. Neharu Marg, Nagpur.
7. M. A. Pathan : A modern Text Book of Statics, Pragati Prakashan, Nagpur.

2. PHYSICS

3SPHY

Unit I : Mathematical background and Electrostatics (12)

Gradient, divergence and curl of a vector fields and their physical significance, line surface and volume integral. Gauss divergence theorem, Stocks theorem. Work done on charge in electrostatic field, flux of electric field, force on moving charge, Lorentz force equation and definition of B. Ampere's force law, Ampere's Law and its applications.

Unit II : Magnetostatics and Maxwell's Equations (12)

Faraday's Law, Integral and differential form of faraday's law, displacement current and Maxwell's Equation, wave Equation satisfied by E and B. Plane electromagnetic wave in vacuum, Poynting vector and Poynting theorem.

Unit-III : Solid State Electronics Devices-I – (12)

Physics of semiconductors : Introduction to semiconductors ; Charge carriers & electrical conduction through semiconductors ; Doping, extrinsic semiconductors ; Fermi level & energy level diagrams ; Drift current in

semiconductor, mobility, conductivity; Hall effect, Hall coefficient, Semiconductor diode & its biasing, LED, Varactor diode.

Unit-IV : Solid State Electronics Devices-II – (12)

Introduction to BJT; working of BJT; modes of operation; Current gains β and α , their relation; CB & CE characteristics; JFET- construction & working, characteristics of FET; Basic concept of Difference amplifier, IC-OP AMP, electrical parameters of OP AMP, inverting & noninverting modes; OP AMP as adder, subtractor, differentiator & integrator.

Unit: V : Special Theory of Relativity (12)

Postulates of Special Theory of Relativity, Lorentz transformations, Length contraction, Time dilation, relativistic addition of velocities, relativity of mass, Einstein's Mass-energy relation, Numericals.

Unit: VI : Atmosphere and Geophysics (12)

Structure of earth – The crust, mantle, core.

Part of the earth – As a planet; The Atmosphere, The lithosphere, The Hydrosphere Composition of Atmosphere

Earthquakes – Causes, terminologies associated with earthquakes. Type of earthquakes scale of intensity, recording of earthquakes.

Radiation in the atmosphere, Propagation of energy through vacuum, Intensity of radiation, Scattering, absorption and reflection of solar radiation by the atmosphere. Moisture and clouds: mechanism that produces clouds, Cloud produced by mixing and by cooling.

Practical: The distribution of marks for practical examination will be as follows:

Record Book	10 marks
Viva-voce	10 marks
Experiment	20 marks
Assignment	10 marks
Total	50 marks

PHYSICS

Environment and Sustainability

CLASS/SEM B. SC. S. Y. SEM (IV)

UNIT VI: RENEAWABLE ENERGY SOURCES

9

21. To draw the BH curve of iron by using a Solenoid and to determine the energy loss due to Hysteresis.

Reference Books:—

1. Solid state Electronics Devices- B.G.Streetman (PHI)
2. Electronics Devices & Circuits – A. Mottershead (PHI)
3. Integrated Electronics—J.Millman ; C.Halkias (TMH)
4. Electronics Devices & circuits – Sanjeev Gupta (Dhanpat Rai Pub.)
5. Electronics Devices & circuits-I & II – Godse & Bakshi (Tech. Pub. , Pune)
6. Solid State Devices & Electronics—Kamal Singh & S.P.Singh (S. Chand & Co.)
7. Electromagnetic theory and holography – satya parakash
8. A text book of geology – G.B. mahapatra
9. Engineering and general geology – parbin singh.
10. The atmosphere – Richard A. Anthes, Hans A. Panofsky, Jhon J Cahir, Albert Rango.
11. Relativity—Goyal and Gupta
12. Text book of Physics — V. K. Sewane
13. Elements of Special theory of relativity—S.P.Singh and M.K.Bagde
14. A course in Electromagnetic field by S.W.Anwane, B.P.B. Publication, New Delhi.

4SPHY

Unit I : Geometrical optics and interference (12)

Cardinal points of an optical system, equivalent focal length and power of coaxial lens system, Interference in thin films due to reflected and transmitted light, interference in wedge shaped thin film, Newton's ring by reflected light, measurement of wavelength of monochromatic light by Newton's, ring, determination of refractive index of liquid by Newton's rings.

Unit II : Diffraction (12)

Fresnel and Fraunhofer Diffraction, Fresnel half period zone, zone plate construction and theory. Double slit diffraction,

Plane diffraction grating; construction and elementary theory, determination of wavelength of monochromatic light by using grating. Resolution of images, Rayleigh's criteria for resolution, R. P. of grating.

Unit III : Polarization

(12)

Concept of polarization, optic axis, double refraction, polarization by double refraction, phase retardation plate :- Quarter wave plate, half wave plate, (Nicol prism-production and analysis of polarized light). Theory of production of elliptically and circularly polarized light, production and detection of elliptically and circularly polarized light. Half shade polarimeter, blue of the sky.

Unit IV : Laser

(12)

Introduction to Maser, Absorption, spontaneous and stimulated emission, population inversion, pumping characteristics of laser beam. Main components of laser system, three level and four level laser system. Ruby laser, He-Ne laser, semiconductor laser, application of laser. Holography-principle.

Unit V : Fiber optics

(12)

introduction of fiber optics, total internal reflection, structure and classification of optical fiber. Propagation of light wave in an optical fiber, Acceptance angle and

numerical aperture, dispersion, fiber losses, fiber optic communication. Advantages and Disadvantages of optic fibers. application of fiber optics.

Unit VI : Renewable Energy Sources

(12)

Introduction to various renewable energy sources – Solar energy, Wind energy, ocean energy- Waves & tides, geothermal energy, Hybrid Systems, Hydrogen energy systems, Fuel cells.

Solar energy - Solar radiations on earth - availability and seasonal variations, Solar constant, Spectral distribution, Measurement of solar radiation and sun shine.

Solar Energy Storage :- Methods of storage, properties of storage materials. Principle of Solar Thermal Applications, Solar water heater, Solar concentrating collectors - Types , applications.

Solar Photovoltaic systems -- Operating principle, Photovoltaic cell concepts , power of a solar cell and solar PV panel ; Applications.

Practical : The distribution of marks for practical examination will be as follows:

Record Book	10 marks
Viva-voce	10 marks
Experiment	20 marks
Assignment	10 marks
Total	50 marks

- A student will have to perform at least ten experiments per semester.
- The semester examination will be of Four Hour duration and student will have to perform one experiment in the semester examination.
- In assignment, every student should be asked to submit the detailed report on one of experiments he or she has performed. The detailed report should include the theoretical background of the experiment..

Evaluation of the student during the semester:

The teacher should explain, discuss and demonstrate one experiment per turn in the first twelve turns of the semester. At the same time in every turn; a teacher will have to conduct a test in the first period of the turn, based on the experiment; he or she has

explained in the previous turn. The test is to be carried out with the interest to make the student aware of the basics of the experiments. This will enhance the viva voce competence of the student. A record of these tests is to be maintained in the department duly signed by the teacher in-charge and head of the department. The record is to be maintained in the following format. Each assignment should be of at least 15 marks. Find the average and assign it in the end Semester practical examination.

BOTANY

CLASS/SEM B. SC. F. Y. SEM (I)

UNIT 1

1.3 DIVERSITY OF PLANTS WITH RESPECT TO HABITAT NUTRITION & ECOLOGICAL SYSTEM

ENVIRONMENT

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13. BOTANY

There shall be following paper and practical for B. Sc. Part – I Semester one examination. The syllabus is based on six theory periods and six practical periods per week (Total 75 – 80 theory sessions and 25 practical sessions per complete semester). There shall be one compulsory paper of 3 hours duration, in theory as stated below and practical examination extending for 4 hours. Every examinee shall offer the following paper of 100 marks (out of which 80 marks will be for written examination and 20 marks for internal assessment) and practical examination of 50 marks. Candidates are required to pass separately in theory and practical examination.

1.	Paper – 1	Marks
	a. Theory	80
	b. Internal Assessment	20
2.	Practical	50
Total		150 Marks

1S – BOTANY

Diversity & Applications of Microbes and Cryptogams

UNIT-I : Plant Diversity (15)

- 1.1 Cyanobacteria and its impact on origin of life
- 1.2 Introduction to Plant Kingdom: Cryptogams
- 1.3 Diversity of plants with respect to habitat, form, nutrition and ecological status
- 1.4 General Account of Viruses and structure of TMV and HIV
- 1.5 Bacteria: structure, Nutrition and reproduction
- 1.6 Role of microbes in Agriculture, Medicine and Industries

UNIT-II: Algae (15)

- 2.1. Classification according to F. E. Fritsch and G. M. Smith up to classes
- 2.2. General characters of algae with reference to Habitat, Thallus organization, Pigmentation, Reserve food and Reproduction
- 2.3. General characters of following classes with special reference to examples mentioned –
 - 2.3.1. Chlorophyta - Oedogonium
 - 2.3.2. Charophyta – Chara (Thallus structure and reproduction)
 - 2.3.3. Phaeophyta – Sargassum (Thallus structure and reproduction)
 - 2.3.4. Rhodophyta – Batrachospermum

UNIT-III : Fungi (15)

- 3.1. Classification according to Ainsworth (1973)
- 3.2. General characteristics of following classes with special reference to examples mentioned –
 - 3.2.1. Mastigomycotina : Albugo (Cystopus)
 - 3.2.2. Ascomycotina : Aspergillus
 - 3.2.3. Basidiomycotina : Puccinia graminis-tritici
 - 3.2.4. Deuteromycotina : General characters
- 3.3. Lichen-Types & Economic importance

Unit-IV : Bryophyte (15)

- 4.1. Classification according to G. M. Smith
- 4.2. General characters, thallus organization and life cycle of–
 - 1.2.1. Hepaticopsida – Marchantia
 - 1.2.2. Bryopsida – Funaria
- 4.3. Evolution of sporophyte in bryophytes
- 4.4. Affinities of bryophytes with algae and pteridophytes
- 4.5. Brief Account on some Indian Bryologist.

Unit-V : Pteridophyte (15)

- 5.1. Pteridophytes as First Vascular Plants.
- 5.2. Classification according to G. M. Smith
- 5.3. General characters of the following classes with special reference to examples mentioned –
 - 5.3.1. Sphenopsida – Equisetum
 - 5.3.2. Filicopsida – Marsilea
- 5.4. Stele types in pteridophytes
- 5.5. Heterospory and Seed Habit in Pteridophytes

Unit-VI : Application of Microbes Cryptogams (15)

- 6.1. Economic Importance of Algae with special reference to Food, Industries, Agriculture and Harmful aspects
- 6.2. Mycorrhiza – Types and Application
- 6.3. Role of Fungi in Industries, Medicine, Food & Agriculture
- 6.4. Plant Diseases –
 - 6.4.1. Viral – TMV
 - 6.4.2. Bacteria – Black arm of cotton (Xanthomonos malvacearum)
 - 6.4.3. Fungal – Tikka disease of groundnut (Cercospora sps.)
- 6.5. Economical and Ecological Importance of Bryophytes

BOTANY

CLASS/SEM B. SC. S. Y. SEM (III)

UNIT 1 CONCEPT OF BIODIVERSITY ENVIRONMENT ENVIRNMENT

45

7. BOTANY

3S- BOTANY

ANGIOSPERM SYSTEMATICS, ANATOMY & EMBRYOLOGY

UNIT I: Angiosperm Systematics and Biodiversity.

- 1.1 Angiosperms: Origin and Evolution (Pteridospermean and Bennittitalean Theory)
- 1.2 Botanical Nomenclature: Principles of rules, Taxonomic Ranks, Type concept, Valid publication.
- 1.3 Herbarium – Concept & significance, Royal Botanical Garden, Kolkata.
- 1.4 Concept of biodiversity, Ex situ and In situ conservation
- 1.5 Concept & importance of Biodiversity.

UNIT II: Angiosperm Systematics

- 2.1 Systems of Classification: Bentham and Hooker's System, Engler and Prantle's system.
- 2.2 Systematic studies & economic importance of following Families
Dicotyledons (Polypetalae) : Malvaceae, Brassicaceae, Leguminosae, Apiaceae,

UNIT III: Angiosperm Systematics

- 3.1 Systematic studies & economic importance of following Families
Dicotyledons (Gamopetalae): Asteraceae, Asclepiadaceae, Apocynaceae, Solanaceae, Verbenaceae, Lamiaceae.
- 3.2 Dicotyledons (Monoclamydeae): Euphorbiaceae.
- 3.3 Monocotyledons: Liliaceae, Poaceae.

UNIT IV: Anatomy

- 4.1 Types of Tissues:
Meristematic – Types of meristems
Permanent – Simple and complex.
- 4.2 Characteristics of growth rings, Sapwood and heartwood.
- 4.3 Anatomy of root: Primary structure in dicot and monocot root, normal secondary growth in dicot root.

UNIT V: Anatomy

- 5.1 Anatomy of stem: Primary structure in monocot and dicot

BOTANY
CLASS/SEM B. SC. T. Y. SEM (V)
UNIT 05: ECOLOGY & ENVIRONMENT

46

22. Dynamic Earth - Skinner Potter - Pub. John, Wiley.
23. Text Book of Physical Geology - G.B. Mahapatra - Pub. C.B.S., New Delhi.
24. Dynamic Earth - Patwardhan A.M., E.E.E Publications, New Delhi.
25. Physical Geology - A. Holmes, Orient Longman Publications.
26. Concepts in Geology - Chakranarya, Kulkarni, Pub. Scientific Publication, Pune.
27. Dynamic Earth - Wiley, John Wiley and Sons, New York.
28. Radhakrishnan N. General Geology, V.V.P. Pub, Vellore.
29. Text Book of Engineering Geology - Parbin Singh, Katson Publishing, Ludhiana.

B.Sc. Final Year, Semester-V
7: BOTANY

The examination in Botany of fifth Semester shall comprise of one theory paper, internal assessment and practical examination. Theory Paper will be of 3 Hrs. duration and carry 80 marks. The internal assessment will carry 20 marks. The practical examination will be of 4 hours duration and carry 50 marks.

The following syllabi is prescribed on the basis of six lecturers per week and 6 practical periods per batch per week. Each theory paper has been divided into 6 units. There shall be one question in every unit with internal choice for each of 12 marks & one compulsory question covering all the syllabus of Semester-V (8 marks).

5S - BOTANY

PLANT PHYSIOLOGY AND ECOLOGY

Unit - I: Plant Water Relations

- 1.1 Importance of water to plant life.
Imbibition, Diffusion, Osmosis, Plasmolysis.
- 1.2 Active and passive Absorption of water.
- 1.3 Ascent of sap - Root Pressure and Transpiration Pull Theory.
- 1.4 Transpiration - Types of transpiration, Stomatal movements, Mechanism of transpiration (Starch) sugar hypothesis), Significance. Antitranspirant, Guttation.
- 1.5 Mineral uptake - Active uptake - Carrier Concept, Passive uptake - Ion Exchange.

Unit - II: Metabolism-

- 2.1 Photosynthesis - Introduction, Role of Light, Photosynthetic Apparatus and Pigments, Two Pigment Systems, Photophosphorylation, C3 and C4 cycle, CAM Pathway.
- 2.2 Respiration - Introduction, Mitochondria as a Respiratory centre, Types of Respiration - Aerobic and Anaerobic, Mechanism of aerobic respiration- Glycolysis, Krebs cycle, Electron transport system and Chemiosmotic ATP generation, Respiratory Quotient.

Unit - III: Metabolism and growth

- 3.1 Nitrogen Metabolism- Sources of nitrogen, Symbiotic nitrogen fixation, Role of Nitrate reductase.
- 3.2 Growth - Phases of growth, Growth curve, Physiological role of growth hormones (Auxins, Gibberellins, Cytokinins, Abscissic acid, and Ethylene).
- 3.3 Physiology of Senescence and Abscission.

Unit - IV: Plant responses

- 4.1 Photoperiodism - Concept of Florigen, Role of Phytochrome,
- 4.2 Vernalization- Concept and Significance.
- 4.3 Plant movement- Tropic (Phototropic and Geotropic) and Nastic (Epinasty, Hyponasty and Seismonasty)
- 4.4 Stress physiology- Concept, Types of stress, Water and Salinity stress.

Unit - V: Ecology and Environment:

- 5.1 Concept of environment, Concept and scope of ecology.
- 5.2 Ecological factors- Climatic- Light, Temperature and Water.
- 5.3 Atmosphere and its composition.
- 5.4 Edaphic factor- Process of soil formation, soil profile, soil biota and their role.
- 5.5 Ecological Adaptations - Morphological and Anatomical adaptation in Hydrophytes, and Xerophytes.

Unit - VI: Ecosystem:

- 6.1 Population Ecology- Natality and Mortality, Community characteristics - Frequency, Density and Abundance
- 6.2 Ecological Succession - Hydrosere and Xerosere
- 6.3 Ecosystem - Definition, Structure and Function,

Food chain, Food web, Energy flow model (Single channel model)

6.4 Types of Ecosystem- Pond ecosystem, Desert ecosystem.

LABORATORY EXERCISE :

Plant Physiology: Major experiment (Any Seven)

1. To study the effect of temperature and organic solvent on permeability of plasma membrane.
2. To study osmotic pressure of cell sap by plasmolytic method.
3. To determine water potential of plant tissue.
4. To determine the path of water (ascent of sap)
5. To determine the rate of transpiration by Ganongs photometer.
6. To determine rate of photosynthesis under varying quality of light and CO₂ concentration.
7. To study the rate of photosynthesis in terrestrial plants with the help of Ganongs Photosynthometer.
8. Separation of chloroplast pigments by paper chromatography/solvent extraction method.
9. Separation of amino acids by paper chromatography method.
10. To determine R.Q. using different substrates.
11. To determine the rate of respiration by Ganongs respirometer.
12. To study antagonism of salts.
13. To study phenomenon of adsorption.
14. To study effect of IAA and Gibberellins on seed germination.
15. Test for secondary metabolites- Alkaloid, Phenolics, Tannin, Flavonoids and Lignin
16. To study Endo and Exo-osmosis by egg membrane osmoscope

Plant Physiology: Minor experiment- (Any Three)

1. To demonstrate fermentation.
2. To demonstrate exo and endosmosis
3. To demonstrate transpiration by Bell jar.
4. To demonstrate light is necessary for photosynthesis
5. To demonstrate anaerobic respiration in germinating seeds.
6. To demonstrate the evolution of CO₂ in respiration.
7. To demonstrate the phenomenon of nastic movement with help of *Mimosa pudica* / or *Biophytum sensitivum*.

Ecology: Major experiment (Any Three)

1. Study of morphological and anatomical adaptations in hydrophytes – *Hydrilla*, *Eichhornia*, *Typha*, *Wallisneria* and *Nymphaea* (any two)

MICROBIOLOGY

CLASS/SEM B. SC. T. Y. SEM (V) ENVIRONMENTAL MICROBIOLOGY & BIOINSTRUMENTATION ENVIRONMENT

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MISCELLANEOUS:-

1.	Propipettes	Any make	Able to hold any pipettes from 0.1 ml to 10 ml capacity Rubber or Plastic.	5 Nos.
2.	Test tube Stands	Tarson	To hold 12 Tubes	20 Nos.
3.	Burette stands	---	Metal rod and base with tarson clamp.	20 Nos.
4.	Rubber Crock		To fit in conical flasks of all capacity.	20 each
5.	Porcelain Glazed tiles		6x6"	20 Nos.
6.	Mortar and Pestal	---	6" diameter	1 Nos.

B.SC. FINAL (SEMESTER-V) 17 : MICROBIOLOGY

The examination shall comprise of two theory papers, one in each semester and one practical in each Semester. Each theory paper will be of 3 hours duration and carry 80 marks. The internal assessment will carry 20 marks. The following syllabi is prescribed on the basis of six lectures per week and 6 practical periods per batch per week. Each theory paper have been divided into 6 units. There shall be one question on each unit, will internal choice and for each of 12 marks and one compulsory question covering all the syllabus of semester V(8 marks).

5S MICROBIOLOGY

(Environmental Microbiology and Bioinstrumentation)

Unit-I : Microbial Associations and Air Microbiology

- A. Microbial Associations : Definition and examples of positive(Mutualism, Commensalism, Synergism), negative (Antagonism, Competition, Parasitism) and neutral association.

B. Air Microbiology

- a) The atmosphere and its layers.
- b) Different types of microorganisms in air.
- c) Techniques for microbiological analysis of air:
 - i) Solid impingement devices
 - ii) Liquid impingement devices.
- d) Airborne diseases : Etiology, symptoms and prevention.
- e) Control of microorganisms in air.

Unit-II : Microbiology of Soil.

- a) Microorganisms in soil.
- b) Rhizosphere.
- c) Decomposition of plant and animal residues in soil.
- d) Definition, formation, function and microbiology of humus and compost.
- e) Biological Nitrogen fixation : Type of nitrogen fixing microorganisms, factors affecting and mechanism of symbiotic and non-symbiotic nitrogen fixation. Process of nodulation, nitrogenase complex, recombinant DNA and nitrogen fixation, legume inoculants.
- f) Cycles of elements in nature :
 - i) Carbon cycle : CO₂ fixation, organic carbon degradation.
 - ii) Nitrogen cycle : Proteolysis, amino acid degradation, Nitrification, Denitrification, Degradation of nucleic acids.
 - iii) Sulphur cycle
 - iv) Phosphorus cycle.
 - v) Biofertilizers, biological pest control.

Unit III : Water Microbiology

- a) Planktons : Definition, types, factors affecting growth of planktons, methods of enumeration, beneficial and harmful activities of planktons.

- b) Control of plankton problems
- c) Eutrophication and its control.

Unit IV : Assessment of Water Quality and Treatment

Bacteriological analysis of water:

- i) Significance of bacteriological analysis of water.
- ii) Collection and handling of water sample from various sources.
- iii) Indicators of excretal pollution.
- iv) Multiple tube dilution technique, MPN.
- v) IMViC classification of coliform.
- vi) Membrane filter technique for coliform and faecal Streptococci.
- vii) ICMR and WHO Bacteriological standards of drinking water.

Unit V : A) Water Treatment

- a) Self purification of water : Various zones and factors responsible for self purification.
- b) Treatment of water : Aeration, Coagulation, Flocculation, Sedimentation and Filtration.
- c) Slow and Rapid sand filters : Construction, mechanism of filtration, differences.
- d) Methods of chlorination : Plain, super chlorination, ammoniachlorine treatment, Break-point chlorination

B) Waste Water Treatment

- a) Aims of sewage treatment, composition of sewage.
- b) Municipal sewage treatment plant.
- c) Preliminary treatment (sieving and Grit chamber)
- d) Primary treatment (sedimentation)
- e) Secondary treatment (Aerobic)
 - i) Trickling filter
 - ii) Activated sludge process
 - iii) Oxidation pond
- f) Anaerobic sludge digestion

- g) Domestic sewage treatment by septic tank and Imhoff tank.
- h) Concept of COD, BOD.
- i) Outline of bio-gas production

VI : Bio-Instrumentation

- a) Spectroscopy- Definition, Principle, types (UV&IR) & its applications.
- b) Electrophoresis- Definition, Principle, types (Paper&Gel) & its applications.
- c) Chromatography- Definition, Principle, types (Paper&TLC) & its applications.
- d) Isotopic Tracer Techniques - Definition, Principle & applications.

Microbiology Practicals.

1. Bacteriological analysis of water and Waste Water.
 - a) Standard plate Count.
 - b) Multiple tube dilution technique (MPN for Coliform)
 - i) Presumptive test ii) Confirmatory test
 - iii) Completed test.
 - c) IMViC test for coliform
 - d) Multiple tube dilution technique for faecal strepto cocci.
 - e) Membrane filter technique for coliforms & faecal streptococci.
 - f) BOD estimation.
 - g) Isolation of Bacteriophage from Sewage.
 - h) Determination of Chlorine demand and residual chlorine.
2. Study of Soil Microbiology
 - a) Enumeration of Soil microorganisms.
 - b) Isolation of Azotobacter from Soil.
 - c) Isolation of Rhizobium from Soil

- d) Isolation of Antibiotic producers from soil
3. Effect of Ultra-violet/Filtration on micro-organism present in water
 4. Separation of amino acids and sugars by paper chromatography.

Distribution of marks for Microbiology practical Examination:

1. Major Experiment	- 15 marks
2. Minor Experiment	- 10 Marks
3. Viva Voce	- 10 marks
4. Spotting	- 10 marks
5. Laboratory Journals	- 05 Marks

Total	- 50 marks
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List of Reference Books for 5S Microbiology:

1. Introduction to Soil Microbiology : Alexander Martin
2. Soil Microbiology : Subbaroa N.S.
3. Introduction to environmental Microbiology: Mitchell, Ralph
4. Sewage & Waste treatment : Hammer
5. Water Pollution : Zajic J.E.
6. Water Pollution Microbiology : Mitchell R.
7. Air Pollution : Perlins H.L.
8. Aquatic Microbiology : Stainer & Shewan
9. Introduction to Waste Water Treatment processes: Ramalhr R.S.

**B.SC. FINAL (SEMESTER-VI)
6 S. MICROBIOLOGY**

The examination shall comprise of two theory papers, one in each semester and one practical in each Semester. Each theory paper will be of 3 hours duration and carry 80 marks. The internal assessment will carry 20 marks. The following syllabi is prescribed on the basis of six lectures per week and 6 practical periods per batch per week. Each theory paper have been divided into 6 units. There shall be one question on each unit, will internal choice and for each of 12 marks and one compulsory question covering all the syllabus of semester VI(8 marks).

ZOOLOGY

CLASS/SEM B. SC. S. Y. SEM (IV)

UNIT 05 ECOLOGY

UNIT 06 ECOSYSTEM ENVIRONMENT

ENVIRONMENT

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E) Histological Slides :- Amphioxus, Frog, Rat

Slides :

Amphioxus : T.S, Oral hood, Pharynx, Tail

Frog :- T.S. lung, Stomach, Kidney, T.S. Intestine,

Rat :- T.S. Liver, Pancreas, Ovary, Testes, Pituitary, Thyroid, Adrenal

DISTRIBUTION OF MARKS FOR PRACTICAL EXAMINATION.

1. Dissection: -	10
2. Permanent stained micro preparation.	05
3. Spotting. (Specimens, Slides, bones, fossil)	10
4. Practical on evolution -	10
5. Class record	05
6. Viva - Voce	05
7. Submission of study tour report.	05

Total Marks:	50
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BSc.II Semester IV

ZOOLOGY

There shall be the following paper and practical for B.Sc. Part-II Semester IV examination. The syllabus is based on 6 theory periods and six practical periods per week (Total 75-80 theory sessions and 25 practical sessions) during the complete semester. There shall be one compulsory theory paper of 3 hours duration the semester, as stated below and a practical examination extending for four hours. Every examinee shall offer the following paper of 100 marks (80 for written examination and 20 marks for internal assessment) and a practical examination of 50 marks. Candidates are required to pass separately in theory and practical examination.

Semester IV

Paper-I:	Marks Allotted
Advanced Genetics and Animal Ecology.	
Written examination.....	80
Internal assessment	20
2) Practical:	50
Total:	150 Marks

ZOOLOGY Paper 4 S
ADVANCED GENETICS AND ANIMAL ECOLOGY

UNIT I : Concept of genes.

Mendel's laws of hereditary – Monohybrid – Laws of dominance, law of segregation. Dihybrid cross – Law of independent assortment. Interactions of genes: , Supplementary factor, complementary factor, duplicates factor, inhibitory factors, and lethal factors – dominant and recessive.

UNIT II : Linkage - Types of linkage, linkage group, arrangement of linked genes, and significance of linkage.

Crossing over – Mitotic and meiotic crossing over, Mechanism of crossing over, theories of crossing over – Darlington's theory, breakage and exchange theory, and copy choice theory. Types of crossing over – Single, double and multiple crossing overs. Factors affecting crossing over, Significance of crossing over.

Multiple alleles. Multiple alleles in relation to eye color in *Drosophila*. Blood group in man, Erythroblastosis foetalis

UNIT III : Sex determination: Autosomes and sex chromosomes, Sex determination in animals, Chromosomal Theory. Genic Balance Theory. Environmentally and hormonally controlled sex determination, Gynandromorphs.

Genetic disorders; Sickle cell anemia, , Huntington's chorea. Diabetes mellitus. Non-disjunction: Turner's syndrome, Klinefelter's syndrome, Down's syndrome. Edward's

Syndrome, Biochemical genetics: Cystic fibrosis, Phenylketonuria, Albinism, Alkaptonuria, Goiters, cretinism. Sex linked genetic disorders and their inheritance in man; Hemophilia and color blindness.

UNIT IV : Genetic Screening and parental diagnosis: - Parental, Carrier, Predictive, CVS (Chorionic Villous Sampling), Amniocentesis, Gene probe and DNA analysis. Genes in Human Heredity: - Inheritance of eye color. Skin color. Recessive genes and consanguineous marriages Genetic counseling: - Risk of marriages in affected family. Birth control measures (male and female).

Kinds of twins: - Identical, Fraternal, Siamese twins.
Significance of twins study

UNIT V : Ecology: concept and scope:

Abiotic factors:

Water: Properties, water problem in terrestrial and aquatic habitat. **Temperature:** Temperature range, Temperature tolerance, Effects of temperature on animals. Homeotherms, poikilotherms. Dormancy, hibernation, aestivation & diapauses. **Light:** Spectral

distribution, Biological effects of light on aquatic and terrestrial animals: Reproduction, Metamorphosis, pigmentation, vision, photo kinesis, phototropism, photoperiodism, migration.

Biotic factors:

Intra specific and interspecific associations, Predation, parasitism, Antagonism, commensalisms, mutualism, competition, (Gauze's Principle).

UNIT VI : Ecosystem: Relationship between habitat and ecological niche - Autotrophic and heterotrophic producer, consumer - trophic level - energy flow in an ecosystem - food chain - food web - pyramids - Ecotypes. Homeostasis of ecosystem.

Terrestrial ecosystem: Classification and Biomes, Aquatic ecosystem: Fresh water ecosystem-Lentic and lotic ecosystem,

Marine ecosystem: Characteristics, salinity, temperature - pressure, zonation and stratification Estuarine ecology: Characteristics types, fauna and their adaptations.

REFERENCE BOOKS:

1. Cell Biology, Genetics, Molecular Biology, Evolution & Ecology – P.S.Verma & V.K.Agrawal.
2. Principles of Genetics – S.K.Jain
3. Genetics – P.K.Gupta
4. Applied Genetics – C.Pmmanuol.
5. Genetics: M.W.Strickberger, New York.
6. Principles of Genetics: Sinnott, Dunn and Dobzansky.
7. Principles of Genetics: Edidon Gardner.
8. Genetics. Verma, P.S. and V.K. Agarwal.. S.Chand & co. New Delhi
9. Gene VI .Lewin, B. 1998. Wiley Eastern Ltd., New Delhi.
10. Human Genetics. Rothwell, N.V.1979. Prentice Hall of India, New Delhi

Practical:-

Two practical per week of 3 periods duration. Examination shall be of 5 Hrs. duration and of 50 marks.

A) Genetic experiments:

1. Recording of Mendelian traits in man.
2. Detection of monohybrid and dihybrid cross with the help of plastic beads.
3. Culturing *Drosophila* using standard methods .*Drosophila* – male and female identification, Mutant forms (from pictures)
4. Demonstration of bar bodies.
5. Preparation of human Karyotypes from Xerox pictures.
6. Photo slides for, Turner's syndrome, Klinefelter's syndrome, Down's syndrome
7. Detection of syndrome from chromosome spread picture.
8. Study of following human genetic traits and application of Hardy-Weinberg Principle to them – Baldness, length of index and ring Finger, attached and free earlobes, rolling of tongue, PTC taste. Other notable traits.

B) Ecology

1. Use of pH meter for estimation of pH in soil samples, b. Use of pH meter for estimation of pH in water samples
2. Estimation of Dissolved oxygen, salinity, pH, free CO₂, carbonates and bicarbonates, calcium in water samples.
3. Adaptations of aquatic and terrestrial animals based on a study of museum specimens. Such as rocky, sandy, muddy shore animals, flying and burrowing animals.
4. Study of natural ecosystem and field report of the visit.
5. Field collection methods;
6. Identification of common animals - Soil invertebrate diversity, diversity of birds and mammals in parks / botanical gardens, threats to local biodiversity.
7. Construction of a food web diagram based on a field visit.
8. Mounting of plankton.
9. Qualitative analysis of fresh water plankton

C) General:-

1. Visit to a National park or sanctuary, and submission of report.

**DISTRIBUTION OF MARKS FOR
PRACTICAL EXAMINATION.**

1. Ecological: Estimations -/Analysis	10
2. Spotting. (2 Spot from Sec. A & 3 Spot from Section B of 2 Marks each)	10
3. Micro preparation.	05
4. Genetic experiment -	10
5. Class record	05
6. Viva - Voce	05
7. Submission of study tour report.	05
Total Marks :	50

CLASS/SEM B. A. I SEM I

PROSE : SPEECH ON INDIAN INDEPENDENCE : JAWAHARLAL NEHRU

PROSE 4: VALUES IN LIFE

ENVIRONMENT

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2017 - PART TWO -77	
Appendix-A	
SYLLABUS PRESCRIBED FOR B. A. - Part I EXAMINATION Semester I Compulsory English	
TIME : 3 HOURS	MAX MARKS THEORY : 80 MARKS MAX MARKS INTERNAL ASSESSTMENT : 20 MARKS
Prescribed Textbook : <i>Blooming Buds</i> by Board of Editors & published by Orient Blackswan.	
UNIT I	
PROSE –	
1. Education Provides a Solid Foundation - A.P.J Abdul Kalam	
2. Love Story - Maneka Gandhi	
3. Speech on Indian Independence – Jawaharlal Nehru	
4. Film Making - Satyajit Ray	
UNIT II	
POETRY –	
5. In the Bazaar of Hyderabad - Sarojini Naidu	
6. She Walks in Beauty - Lord Byron	
7. Middle Age - Kamala Das	
UNIT III	
GRAMMAR –	
8. Parts of Speech	
9. Tenses	
UNIT IV	
COMMUNICATION SKILLS –	
10. Unseen Passage	
11. Letter Writing (Personal & Business Letters)	
12. Curriculum Vitae (CV)	
UNIT V	
MULTIPLE CHOICE QUESTIONS –	
Based on the prescribed text Unit I & II only.	
INTERNAL ASSESSMENT	
i) Viva- Voce	
a) Personal Interview	
b) Seminar	
ii) Assignments	
a) Making Introduction	
b) Greeting People	
c) Talking about Family	
d) Describing People, Places & Animals	
e) Expressing Feelings	
f) Inviting, Suggesting, Accepting & Refusing	
Recommended Books:	
1. Spoken English : A Foundation Course Part 1 (With Audio CD) by Kamlesh Sadanand & Susheela Punitha (Revised Edition) Published by Orient Blackswan.	
2. Spoken English : A Foundation Course Part 2 (With Audio CD) by Kamlesh Sadanand & Susheela Punitha (Revised Edition) Published by Orient Blackswan.	
Compulsory English	
TIME : 3 HOURS	MIN PASSING MARKS : 32 MARKS
MAX MARKS THEORY : 80 MARKS	MIN PASSING MARKS : 08 MARKS
MAX MARKS INTERNAL ASSESSTMENT: 20 MARKS	
Distribution of Marks	
A) Prose i) The students will have to answer THREE out of FOUR short answer questions of 2 marks each.	
= 6 Marks	
ii) The students will have to answer TWO out of FOUR long answer questions of 5 marks each.	
= 10 Marks	
B) Poetry i) The students will have to answer TWO out of THREE short answer questions of 3 marks each.	
= 6 Marks	
ii) The students will have to answer TWO out of THREE long answer questions of 5 marks each.	
= 10 Marks	

English
CLASS/SEM B.Sc.-I
Environment And Sustainability
PROSE 4: WATER THE ELIXIR OF LIFE – C. V. RAMAN

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2017 - PART TWO -199-

Communication Skills:

For I Semester

- 1) Everyday English Part I
- 2) Preparing Curriculum Vitae
- 3) Letter Writing (Applications, Business, Formal letters)

For II Semester

- 1) Everyday English Part II
- 2) Report Writing
- 3) Paragraph Writing

COMPULSORY ENGLISH
1S Compulsory English

- | | |
|-------------------------|---------------------|
| i) Theory | 40 marks |
| ii) Internal Assessment | 10 marks |
| Total | 50 marks |

i) Theory : Time : 2 Hours

Total marks : 40

Prose Section

- | | |
|------------------------------|-----------------|
| 1. The Child | - Preenchand |
| 2. A Simple Philosophy | - Seethal |
| 3. The Elephant | - R. K. Narayan |
| 4. Water- The Elixir of Life | - C. V. Raman |

Poetry Section

- | | |
|---|----------------------|
| 1. Say Not the Struggle Naught Availeth | - Arthur Hugh Clough |
| 2. God's Grandeur | - GM Hopkins |
| 3. Ode to Autumn | - J Keats |
| 4. Bangle Sellers | - S Naidu |
| 5. Stay Calm | - G. Kestner |

Grammar : For Sem-I

- 1) Parts of Speech.
- 2) Use of Articles, Prepositions and Tense.
- 3) Transformation.

Communication Skills : For Sem-I

- 1) Everyday English Part I
- 2) Preparing Curriculum Vitae
- 3) Letter Writing (Applications, Business, Formal letters)

Distribution of Marks.

Maximum Marks : 40

Time : Two Hours

- | | | |
|-------|---|----------|
| Q.1 : | There shall be five short answer questions based on prescribed prose. | 05 marks |
| Q.2 : | There shall be four long answer questions based on prescribed prose. Out of these, students will have to answer any two questions of five marks each. | 10 marks |
| Q.3 : | There shall be four long answer questions based on prescribed poems. Out of these, students will have to answer any two questions of five marks each. | 10 marks |
| Q.4 : | There shall be five questions of one mark each, for Do as directed from Grammar - Parts of Speech, Use of articles and Prepositions, Tenses, Transformation of Sentences. | 05 marks |
| Q.5 : | There shall be five questions of one mark each, from Everyday English. | 05 marks |
| Q.6 : | There shall be one question on Preparing a Curriculum Vitae or Letter Writing. | 05 marks |

- | | | |
|---------------------------|--------------------|-----------------------|
| ii) Internal Assessment – | i) One Unit Tests | - 06 marks |
| | ii) One Assignment | - 04 marks |
| | Total | 10 marks |

2S Compulsory English

- | | |
|-------------------------|---------------------|
| i) Theory | 40 marks |
| ii) Internal Assessment | 10 marks |
| Total | 50 marks |

i) Theory : Time : 2 Hours

Total Marks : 40

Prose Section

- | | |
|----------------------------------|-----------|
| 6. What is courage? | - W. Slim |
| 7. The Hazards of Food Colouring | - |

Marathi
CLASS/SEM B.A.-II SEM-III
Environment And Sustainability
ADNYAPATRA

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2018 - PART TWO - 153

विभाग ब) उल्लिखित

१)	आज्ञापत्र	रामचंद्रविठ्ठल आगास
२)	विषय अर्दी होटी	दया घांगूर

विभाग क) कविता

१)	संतदाणी	अ) पोखारोळा ब) सौमदाबाई
२)	अखेर कनई	सुखभाऊ
३)	बाबडे	केदार मेळाम
४)	जात	वीरल देशमुख
५)	सरात माराची लीढ	लक्ष्मण महाडिक
६)	सातवा	विजयाई भगत

विभाग ड) व्यावहारिक मराठी

१)	सकल कला	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण २२ वे	सोम, केतकी भोडक व इतर, पद्ममंगला प्रकाशन, पुणे
२)	सुत्रसंग्रह	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण २३ वे	

बी. ए. भाग २ - मराठी (आवश्यक)

सत्र - ४

विभाग अ) वैचारिक

१)	पत्री-पुरुष तुलना	साराबाई शिंदे
२)	आरसा	डॉ. बाबासाहेब आंबेडकर
३)	विज्ञानमुक्त भारता	अनंत नारळीकर

विभाग ब) उल्लिखित

१)	गाडगेभावांच्या जीवनातील लक्ष्यज्ञान	प्रबोधनकार के.बी. लाकडे
२)	स्मरानातील सोन	अण्णा भाऊ साठे
३)	स्त्रीवादी चळवळीने आम्हाला आम्हाच्या अस्तित्वाची जाणीव दिली	विशुत मागवल

विभाग क) कविता

१)	संतदाणी	अ) एकनाथ ब) कान्होपाळा
२)	सारेच दीप कवी संदावले आता	अनिल
३)	जिवलग	शांत भोडके
४)	जागजागी	भ.ना. पदसाधने
५)	पेटणू नवत देश	मिर्झा रफी अहमद बेग
६)	मराठी	राजेश महाडिक

विभाग ड) व्यावहारिक मराठी

१)	माहितीपत्रक	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण ९ वे	सोम, केतकी भोडक व इतर, पद्ममंगला प्रकाशन, पुणे
२)	निमज्जनप्रतिज्ञा व कवयित्रीमराठी	संदर्भ ग्रंथ : 'उपयोगित मराठी' मधील प्रकरण १० वे	

Activities Related to Cross Cutting Issues

Academic Session
2021-22

Activities Conducted for the Address to Gender Sensitization



On the occasion of Krantijyoti Savitribai Phule Jayanti on 03 Jan 2022



Celebration of International Women's Day

[illegible]

Role of Youth in crime prevention and legal awareness

Activities Conducted for the Address to Environment & Sustainability

आयुष्यासाठी शाश्वत पर्यावरण

अध्ययन समाचार

संपादक : जितेंद्र रोडे

काहीतरी : इन्व्हेस्टमेंट ऑनली, वी. नरसिं राव उपाध्याय सरदार, लक्ष्मण राव, अमरावती, वि. अमरावती, 444 825

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दि. १ सप्टेंबर २०२१

राष्ट्रीय सेवा योजना व राष्ट्रीय छात्र सेना यांचा संयुक्त उपक्रम आदर्श महाविद्यालय येथे वृक्षारोपण कार्यक्रम संपन्न

धा.रेल्वे दि. १ | प्रज्वोत पहाडे

स्थानिक धामणगाव एज्युकेशन सोसायटी द्वारा संचालित आदर्श महाविद्यालय येथे दरवर्षीप्रमाणे या वर्षी सुद्धा १ सप्टेंबर, बुधवार रोजी अमरावती जिल्ह्यातील धामणगाव रेल्वे शहरातील आदर्श महाविद्यालय व राष्ट्रीय सेवा योजना व राष्ट्रीय छात्र सेना तर्फे वृक्षारोपण कार्यक्रम कोरलेजच्या प्रांगणात आयोजित करण्यात आला होता. या वृक्षारोपण कार्यक्रमांमध्ये सुरुवातीला 'माझी वसुंधरा' या आशयाची शपथ घेण्यात आली. राष्ट्रीय सेवा योजना व राष्ट्रीय छात्र सेना तर्फे १०० झाडे लावण्याची संकल्पना महाराष्ट्र शासनाच्या 'माझी वसुंधरा' या उपक्रम अंतर्गत राबवण्यात आली, या वृक्षारोपण कार्यक्रमाची सुरुवात आदर्श महाविद्यालयाचे प्राचार्य डॉ.योगेंद्र बी.गांडोळे यांच्या हस्ते वृक्षारोपण करून झाली. यावेळी महाविद्यालयातील सर्व राष्ट्रीय सेवा योजना व राष्ट्रीय छात्र सेना चे विद्यार्थी तसेच सर्व शिक्षक व शिक्षकेतर कर्मचारी यांनी या प्रसंगी वृक्ष लागवड करून आपला सहभाग दर्शविला व झाडे लावा झाडे जगवा असा संदेश या निमित्ताने देण्यात आला.

या प्रसंगी राष्ट्रीय सेवा योजनेचे कार्यक्रम अधिकारी प्रा.श्रीकान्त पाटील, सहाय्यक कार्यक्रम अधिकारी डॉ. प्रवीण के.के, राष्ट्रीय छात्र सेनेचे अधिकारी, ले.ए.बी.बड, रा.से.यो. माजी कार्यक्रम अधिकारी डॉ. नरेंद्र नागपुरे, वीडा व खेळ विभागाच्या प्रमुख डॉ. एम वाय कोपुलवार,

आयक्यूएसी प्रमुख डॉ.आनंद नराजि, वनस्पती शास्त्र विभाग प्रमुख संदीप पैदाम, प्राणीशास्त्र विभाग प्रमुख वी. एस.ओ. कुंरेशी, डॉ. चिंचमलादपुरे, ग्रंथपाल डॉ. कुसळकर सर, डॉ.सीरम घोगरे, डॉ. मुंगसेर, डॉ. स्वप्नील शेळके आदी उपस्थित होते.

तर साहिल कांबळे, आकाश महाळे, मानसी काळे, प्रतिक ठाकरे, सुवर्णा वंजारी, देवयानी झांबरे, जागृती महाजन, वैष्णवी वानखेडे, समीक्षा वडुकर, साक्षी गोंडबोले, पायल गुप्ता,लक्ष्मी सोनयीया, भावना चवरे इत्यादी रा. से. यो. स्वयंसेवकांनी व राष्ट्रीय छात्र सेने च्या कॅप्टन यांनी कार्यक्रमाला यशस्वीतेकरिता अथक परिश्रम घेतले.

महाराष्ट्र शासन
पर्यावरण व वातावरणीय बदल विभाग

प्रमाणित
माझी वसुंधरा मित्र
नाम : SHRIKANT P PATIL

समर्थक नाव/मातापे नाव : आदर्श विद्यालय, व.भा.कला आणि विज्ञान, आदर्श महाविद्यालय, धामणगाव, अमरावती ४४४८२५

एकूण सदस्य : 230
दिनांक : 31/08/2021

आदित्य ठाकरे,
मंत्री
पर्याटन, पर्यावरण व वातावरणीय बदल, राजेशिष्टाचार

माझी वसुंधरा

FLDCE200643152



Wildlife Week Celebrated at Z. P, Primary School, Bor-Waghal 04/10/2021



Wildlife Week Celebrated at Dr. Babasaheb Ambedkar School, Dhamangaon Rly 04/10/2021

होते. कार्यक्रमाचे संचालन विद्यार्थिनी कु. गावत्री बांते यांनी केले. यावेळी श्रेया कोल्हे, दामिनी धुंगरूड, हिमानी धुंगरड, नैतिक जिचकार, अनु निकोरे, सानिया मोहोड, संदेश कोल्हे, साहिल फलके तसेच अनेक विद्यार्थी आणि विद्यार्थिनींनी कार्यक्रमाच्या यशस्वीतेसाठी परिश्रम घेतले.

**Academic Session
2020-21**

Activities Conducted for the Address to Gender Sensitization

महाराष्ट्र | 12 डिसेंबर 2020

अमरावती

आदर्श महाविद्यालयात महिला समुपदेशन कार्यशाळा

— दामिनी क्लबने केले आयोजन —



वार्ताहर @ धामणगाव रेल्वे.

स्थानिक आदर्श महाविद्यालयात दामिनी क्लबच्या वतीने मानसिक आरोग्य व महिला सक्षमीकरण अंतर्गत समाज माध्यम समुपदेशन कार्यशाळेचे आयोजन करण्यात आले होते. प्रथम सत्रात दामिनी क्लबच्या समन्वयक डॉ. माधुरी कोपुलवार यांनी मानसिक आरोग्य कसे जपवे याबाबत मार्गदर्शन केले. दुसऱ्या सत्रात डॉ. माया मावळे यांनी समाज माध्यम जनजागृती विषयावर नवीन विविध माध्यमांचा कसा उपयोग करावा तसेच या सर्व आधुनिक तंत्रज्ञानाचा उपयोग व त्यांचे परिणाम याविषयी मार्गदर्शन केले. प्रास्ताविक डॉ. पुनम गहुकर यांनी केले. आभार डॉ. शिल्पा विधळे यांनी मानले. दोन्ही सत्रातील कार्यक्रमाचे संचालन डॉ. अश्विनी रंगारी यांनी केले. कार्यशाळेत विद्यार्थी प्रतिनिधी लेखा कोठारी हिन या कार्यशाळेच्या उपयोगितेवर विचार व्यक्त केले. कांचन ढवळे हिने मुद्धा मनोगत व्यक्त केले. अलवाडकर यांनी पालक प्रतिनिधी म्हणून प्रतिक्रिया दिली. प्राचार्य डॉ. योगेंद्र गांडोळे यांनी विद्यार्थिनींना व पालकांना कार्यशाळेच्या निमित्ताने विशेष मार्गदर्शन केले.

Mental Health and Women Empowerment Workshop

अध्ययन समाचार

दि. ५ जानेवारी २०२१

आदर्श महाविद्यालयात सावित्रीआई फुले जयंती संपन्न.

धा.रेल्वे ५ । प्रज्योत पहाडे



स्थानिक आदर्श महा विद्यालयाच्या दामिनी क्लबच्यावतीने महाविद्यालयातील सभागृहात सावित्रीबाई फुले जयंती साजरी करण्यात आली या अंतर्गत व्याख्यानार्थे आयोजन करण्यात आले कार्यक्रमाच्या सुरुवातीला हरित वस्तुधरा यासाठी राष्ट्रीय सेवा योजना तर्फे प्रतिज्ञा घेण्यात आली .कार्यक्रमाचे अध्यक्षस्थान महाविद्यालयाचे प्राचार्य डॉ.योगेंद्र गांडोळे यांनी भूषविले .कार्यक्रमाची सुरुवात विद्यार्थी गीताने झाली त्यानंतर सावित्रीबाईंच्या प्रतिमेचे पूजन करण्यात आले .कार्यक्रमाचे प्रास्ताविक व प्रतिज्ञा वाचन दामिनी क्लबच्या समन्वयक डॉ.कोपुलवार यांनी केले तर परिचय डॉ. माया मावळे यांनी करून दिला. डॉ. पुनम गहुकर यांनी प्रथम सत्रात सावित्रीबाई यांच्या जीवनावर प्रकाश टाकला तर द्वितीय सत्रात डॉ. अश्विनी रंगारी यांनी सावित्रीबाई च्या कार्यावर सविस्तर व्याख्यान दिले. अध्यक्षांय भाषणात प्राचार्य डॉक्टर गांडोळे यांनी विद्यार्थ्यांना व सभागृहाला मार्गदर्शन करताना सुंदर अशी सावित्री आई पुन्नेवर कविता प्रस्तुत केली सोबतच बहुमुल्य मार्गदर्शन केले .कार्यक्रमाचे सूत्रसंचालन डॉ. शिल्पा विधळे यांनी तर आभार प्रदर्शन सौ यामिनी बिरे यांनी केले.कार्यक्रमाच्या यशस्वी आयोजनासाठी दामिनी क्लबच्या सर्व सदस्यांनी विशेष योगदान दिले.तर डॉ. सीरव घोंगरे यांचे विशेषसहकार्य मिळाले.रा से यो कार्यक्रम अधिकारी डॉ नरेंद्र नागपुरे देखील कार्यक्रमाला उपस्थित होते.कार्यक्रमाला विद्यार्थी व शिक्षक कोविड - 19 च्या सर्व सुचनांचे पालन करून सहभागी झाले होते.

Savitribai Phule Birth Anniversary

Activities Conducted for the Address to Human Values

Department of NSS 2020-21 Rangoli Competition on International AIDS Day



Activities Conducted Under Environment & Sustainable Development



**Academic Session
2019-20**

Activities Conducted for the Address to Gender Sensitization



Savitribai Phule Jayanti



International Women's Day

Activities Conducted for the Address to Environment and Sustainability



Disaster Management Workshop



Tree Plantation

**Academic Session
2018-19**

Activities Conducted for the Address to Gender Sensitization



Savitribai Phule Jayanti 03 Jan 2019



International Women's Day

Activities Conducted for the Address to Human Values

**Fund for Flood Victims of Kolhapur, Sangali, Satara, Bhamragad**

International Yoga Day

Activities Conducted for the Address to Environment & Sustainability



**Academic Session
2017-18**

Activities Conducted Under Gender Sensitization



Krantijyoti Savitribai Phule Birth Anniversary



Blood Group and Hemoglobin Check-up Camp

Activities Conducted Under Human Values

Adarsha Science, J. B. Arts & Birla Commerce Mahavidyalaya,
Dhamangaon (Rly)

NOTICE

Date: 01/03/2018

All the Teachers, Students and Non-teaching staffs are hereby informed that Damini Club of Adarsha Mahavidyalaya, Dhamangaon Rly organized Workshop on Women Empowerment and Awareness on the eve of International Women's Day and celebrate International Women's Day on 8th March 2018 at 12:30 pm. So all the students, Teachers & Non-teaching staff need to join the programme and take benefit.

Resource Person : Adv. Aarati Kokane & Prof. Suvarna Patil

Date & Time : 8th March 2018 at 12:30 pm.

Venue : College Auditorium


Dr. M. Y. Kopulwar
Co-ordinator of Damini Club


PRINCIPAL
Adarsha Science, J. B. Arts &
Birla Commerce Mahavidyalaya,
Dhamangaon (Rly)

Celebration of International Women's Day



International Yoga Day 21st June 2017

Activities Conducted Under Environment and Sustainability



Tree Plantation in the College

Adarsha Science, Jalramdas Bhagchand Arts and Birla commerce Mahavidyalaya, Dhamangaon Rly

DEPARTMENT OF ZOOLOGY

A WORKSHOP ON DISASTER MANAGEMENT AND INSTALLATION OF BIRD NESTS AT THE HANDS OF Dr. SUDHIR KOHCHADE, ASSISTANT PROFESSOR, DEPARTMENT OF ZOOLOGY R.L.T. COLLEGE, AKOLA: 11.09.2017

