Hemchandracharya North Gujarat University, Patan

B. Sc. (Sem-I to VI) Programme

Under CBCS-Semester-Grading pattern List of Elective (Generic) Courses (W.E.F : June 2012)

Each Course of 2 credits and Number of Contact hours = 2 Per Week

(Approximately 24 Contact Hours in Each Semester)

N.B : There are possibilities of Modification in these Course

SEMESTER I

- EG-111 Communication Skills
- EG-112 Basics of Mathematics
- EG-113 Basics of Biology

SEMESTER II

- EG-121 Environmental Science
- EG-122 Disaster Management

SEMESTER III

- EG-211 Personality Development
- EG-212 Value Oriented Education

SEMESTER IV

- EG-221 Entrepreneurship Development and Small Scale Business Management
- EG-222 Human Rights

SEMESTER V

- EG-311 Database Management System
- EG-312 Indian Constitution

SEMESTER VI

- EG-321 Information Technology
- EG-322 Naturopathy

Examination Scheme for Elective (Generic) Course

For Generic Courses Other than Computer Courses

Time: 2	2 Hours Theory Examination	Total Marks: 50	
1.	MCQs (10 out of 12) (Each of 1 Mark) [At least 6 questions from	om each Unit]	10
2 (A)	Short notes (2 out of 3) (Each of 4 Mark) [only from Unit-I]		08
2 . (B)	Long Question (2 out of 4) (Each of 3 Mark) [only from Unit-	I]	06
2. (C)	Short Question (6 out of 9) (Each of 1 Mark) [only from Unit-I]	06
3 (A)	Short notes (2 out of 3) (Each of 4 Mark) [only from Unit-II]		08
3 . (B)	Long Question (2 out of 4) (Each of 3 Mark) [only from Unit-	I]	06
3 . (C)	Short Question (6 out of 9) (Each of 1 Mark) [only from Unit-I	.]	06

Examination Scheme for Elective (Generic) Course

For Computer Courses : EG-311,EG-321

Time:	1.5 Hours	Theory Examination	Total Marks: 30	
1.	MCQs (6 out of 9) (Each o	f 1 Mark) [At least 4 questions from	each Unit]	06
2 (A)	Short notes (2 out of 3) (Ea	ch of 4 Mark) [only from Unit-I]		08
2 . (B)	Short notes (4 out of 6) (Ea	ch of 1 Mark) [only from Unit-I]		04
3 (A)	Short notes (2 out of 3) (Ea	ch of 4 Mark) [only from Unit-II]		08
3 . (B)	Short notes (4 out of 6) (Ea	ch of 1 Mark) [only from Unit-II]		04

Practical Examination Examination Pattern for EG-311,EG-321: (Computer Courses)

	Time: 1 Hour]	[Maximum Marks: 20
1.	પ્રેક્ટિકલ (2 પ્રેક્ટિકલ સ્વાધ્યાયમાં થી કોઈ પણ 1)	
	Practical (1 out of 2 practical exercise)	15
2.	a. मौणिङ प्रश्नोत्तरी. [viva-voce.]	03
	b. પ્રયોગપોથી [Journal.]	02

Note: * Student will have to note all the steps/procedure related to the practical carried out by him/her in his/her answer book. Due weightage should be given while evaluating the practical. The purpose of this requirement is to create the skill of documentation among the students.

* These answer book will be submitted with the along with the mark sheet to the university by the examiner.

SEMESTER I

EG-111 Communication Skills

EG-112 Basics of Mathematics

EG-113 Basics of Biology

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	code :	B.Sc.	Programme Name :	Communication Skills	
Course Cod	e	EG 111	Semester :	1	
	Personality Development				
Course type	:	Elective Generic Total credit : 02		02	
Teaching time (hours)			Examination Marking sc	heme	
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

EG-111 Communication Skills

Unit I

Theory of Communication: Definition & process of Communication [3*], Objectives of Communication [6-20**], Barriers to effective Communication [52-61**]

Structure and layout of letters: Elements of structure, forms of layout, Styles of presentation [19-33*] **Modern office technology:** Computer, Fax, E-mail, Duplication Technology: Duplication, Photo cop y, Printing, Storage Devices [110-117*]

Job application and how to make a resume [78-81*]

Unit-II

Language Work:

1. Tenses, Preposition, Vocabulary, Confusables***

2. Comprehension or précis writing.

Reference Books:

**Essentials of Business Communication

Publisher: S Chand & Sons By Rajendra Pal and J S Korlahalli Seventh Revised Edition, Reprint 1996 *Business Correspondence and Report Writing

Publisher: Tata Mac. Co. Ltd By R C Sharma and Krishna Mohan 9th Reprint, 1998.

List of Confusables***

List of Comu	DUDIED				
Aboard	Avoid	Cite	Dear	Emigrant	Accept
Abroad	Evade	Site	Deer	Immigrant	Except
Bail	Coast	Defer	Fair	Access	Berth
Bale	Cost	Differ	Fare	Excess	Birth
Complement	Deficit	Foreword	Adapt	Beside	Confidant
Compliment	Deficiency	Forward	Adopt	Besides	Confident
			-		
Deny	Industrial	Addition	Boast	Continual	Depose
Refuse	Industrious	Edition	Boost	Continuous	Dispose
					_
Judicious	Affect	Carton	Credible	Draft	Loose
Judicial	Effect	Cartoon	Creditable	Draught	Lose
				-	
lternate	Check	Damage	Eligible		
Alternative	Cheque	Damages	Illegible		
	1	0	0		

H	HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	e code :	B.Sc.	Programme Name :	Basics of Mathematics		
Course Coo	le	EG112	Semester :	1		
	Personality Development					
Course type	e:	Elective Generic Total credit : 02				
Teaching time (hours) Examination Marking scheme			scheme			
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)		
2	-	-	50	50		

Basics of Mathematics

Unit I

Set Theory and Functions

Basic definitions of Set Theory

Methods of representation of Set (Property method, Listing method)

Set operations (Union, Intersection, Complement of a set, Difference of sets, Symmetric difference, Cartesian product of sets)

Properties of set operations (Commutative, Associative, Distributive, De -Morgan's laws) Power set and Cardinality of sets.

Functions

Introduction of Functions, Definition of function, Domain, Co-domain, Range of a function Graph of a functions

Types of Functions (Linear, Quadratic, Polynomial, Implicit and Explicit functions and examples related with it)

Exponential and Logarithmic with their properties and related examples, Introduction to Trigonometric functions.

Unit II

Limit

Expansion of concept of Limit, Some Standard Limits (without proof), Continuity of a function, Discontinuity and Examples

Differentiation

Definition of Derivative, Rules for Differentiation (without proof), Differentiation of function of a function,

Chain Rule, 2nd order derivatives

Integration

Introduction to indefinite integral, Definition of Integration & Methods of Integration, Substitution Methods.

Some Standard Formulae (without proof) and example based on the standard forms, Introduction to definite

integration and simple examples on it

Textbook:

Business Mathematics (Latest Edition)

Publisher: S. Chand and Sons Pu blications

By: V.K.Kapoor

Reference Book:

Engineering Mathematics (Third Edition)

Publisher: Pearson Education

By: Anthony Croft, Robert Davison, Martin Hargreaves

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN						
Programme	code :	B.Sc.	Programme Name :	Basics of Biology		
Course Cod	le	EG 113	Semester :	1		
	Personality Development					
Course type	9:	Elective Generic Total credit : 02				
Teaching time (hours)			Examination Marking sc	heme		
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)		
2	-	-	50	50		

Basics of Biology

Unit I

- 1. Diversity in The Living World
- 2. Structural Organization in Plant
- 3. Structural Organization in animals
- 4. Cell : structure and Functions

Unit II

- 1. Genetics and Evolution
- 2. Biology and Human Welfare
- 3. Biotechnology and Its Applications
- 4. Ecology and environment

Reference Books

- 1. NCRT XI standard Biology text book
- 2. NCRT XII standard Biology text book

EG-121 Environmental Science EG-122 Disaster Management

HE	HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN				
Programme	code :	B.Sc.	Programme Name :	Environmental Science	
Course Cod	le	EG 121	Semester :	11	
	Personality Development				
Course type	9:	Elective Generic Total credit : 02			
	ng time urs)		Examination Marking s	cheme	
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

Environmental Science

Unit I

Environment: Definition of Environment [2*], Institutions and people in Environment Preamble [10-16] Natural Resources: Atmosphere [19], Hydrosphere [19], Lithosphere [20], Biosphere [20] Forest resources: Use and over exploration [25], deforestation [26] and function [27]. Water resources: Introduction [28], over utilization and pollution of surface a nd ground water [29], water for agriculture and power generation [31], sustainable water management [31], Dames and problem caused by dams [32], Mineral resources: Introduction [33], Mine safety [34], environmental problems [35], Land resources: Introduction [55], degradation and erosion [56] Energy sources: Hydroelectric power: Introduction [43] and its drawbacks [44] Solar energy: Solar cookers [46], photovoltaic energy [47] Biomass energy: Introduction [48], biogas [49]

Wind energy [50-51], Tidal and wave power [51], Geothermal energy [52]

Unit II

Ecosystem and Biodiversity:

Structure and function of an ecosystem: Introduction [62], producers, consumers and decomposers [63] **Energy flow** in the ecosystem [65],

Biogeochemical Cycles: Water cycle [65], Carbon cycle [65], oxygen cycle [66], nitrogen cycle [67], energy cycle [67]

Food chains, webs and ecological pyramids [69]

Forest types in India [73-75]

Biodiversity: Definition [92], Genetic [92], species [92] and ecosystem diversity [93], Biogeographic classification of India [94], Value of biodiversity [95], India as a mega diversity nation [101], Hot spots [102], Conservation of Biodiversity [120-126]

Major reading:

(* Page Number from) **Erachs Bharucha** (2008, first edition) **Paryavaran Adhyayan** [Gujarati], Orient Longman Pvt. Ltd., Hyderabad.

Distributor: M/S Himanshi book company, 06 -07 Shri Jayendrapuri Bhavan, Ellisbridge, New Sanyas Ashram, Ahmedabad – 380 006.

HEN	HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN				
Programme	code :	B.Sc.	Programme Name :	Disaster Management	
Course Cod	e	EG-122	Semester :	II	
	Personality Development				
Course type : Electi		Elective Generic	Total credit :	02	
Teaching time (hours)			Examination Marking sc	heme	
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

Disaster Management

Unit I

General concept of disaster management : Introduction [83*, 90**, 178***], Primary concept [85-86*, 91-93**], from management to mitigation of disaster [179***], risk assessment and vulnerability analysis [180***], public awareness and training [181***], structural and constructional reinforcement of existing buildings [182***], causes of disaster [89*], effects of disaster [90*]

Pre disaster management: Significance of disaster preparedness [98*], various steps/arrangement during pre disaster management [95-98*]

Unit II

Management during disaster and post disaster : Management during and after disaster [94*], earth quake [94**, 183***], drought [97**], diseases [100**], flood [182***], cyclones [184***], land slides [185***], measures to mitigate accidental disaster [101 -102**] **Cycological health and ill condition of affected people :** Introduction [106*, 105**], effect of natural calamities [107*, 106**], psychological health and mental therapy [108 -110*, 106-108**], social awareness and support [111*, 109 -110 **]

Major reading:

(* Page Number from) **Modi C D** & others (2006) **Paryavaran and Aapatti Vyavasthapan** [Gujarati], Swami prakashan, Patan-384265

(** Page Number from) **Patel J C** (2006) **Paryavaran and disaster management** [Gujarati], Parshwa publication, Ahmedabad-380001

(*** Page Number from) Erachs Bharucha (2008, first edition) Paryavaran Adhyayan [Gujarati], Orient

Longman Pvt. Ltd., Hyderabad.

Distributor: M/S Himanshu book company, 06-07 Shri Jayendrapuri Bhavan, Ellisbridge, New Sanyas Ashram, Ahmedabad – 380 006.

Other reading

K Ramana Murthi, 2004 Disaster Management, Dominant Publishers and Di stributors, New Delhi -110002

SEMESTER III

EG-211 Personality Development

EG-212 Value Oriented Education

HE	HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	code :	B.Sc. Programme Name : Personality Developm				
Course Code		EG - 211	Semester :	Ш		
	Personality Development					
Course type : Elective Generic Total credit :		Total credit :	02			
	ng time urs)		Examination Marking	scheme		
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)		
2	-	-	50	50		

Personality Development

Unit 1

- 1. What is Personality?
- **2.** Theories of Personality
- 3. Psychoanalytical theories
- 4. Trait theories; Behaviourist view ; Skinner; Social learning theory; Phenomenological perspectives

Unit 1

- 1. Personality Development: Physical Aspects for Male and female
- 2. Hygiene, Habits and Fitness
- **3.** Communicating Skills
- 4. Non-verbal Communication

Reference Books

IGNOU study material for Personality development

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	code :	B.Sc. Programme Name : Value Oriented Educa			
Course Cod	le	EG 212	Semester :	III	
	Personality Development				
Course type	e:	Elective Generic Total credit : 02			
	ng time urs)	Examination Marking scheme			
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

Value Oriented Education

Objective:

The Main Objective Of The Syllabus Of Value Education Is To Create Awareness Regarding, The Personal Moral Values, Social Values And Indian Culture Among The Students. It Also Aims To Create Syllabus Awareness Regarding The Professional Ethics Among Them. The Ultimate Aim Of The Syllabus Is To Create Love And Faith For Value, Ethics And Our Reach Culture.

UNIT :1

- Humanity And Humanitarian Approach.
- Value, Ethics And Principal Meaning And Importance.
- Personal Character And Merits-Truth Love Faith, Sympathy ,Mercy Kindness, Grace, Honesty, Purity ,Simplicity, Good Feeling And Positive Attitude.
- Human Capital And Character Building Through Education, Importance Of Labour And Basic Services In The Society.
- Some Part Of Autobiography And Biography Of Some Great Leaders Of The Society- Mahatma Gandhi, Swami Vivekananda, And Lord Ram, Mother-Teresa, Dr. Abdul Kalam

UNIT :2

- Indian Culture Main Features / Characteristics .
- Faith In Supreme Power(Almight)
- Spirituality, Ethics, Yoga, Meditation
- Principal Of Karma Message Of Geeta
- Love For Nature & Environment
- Tolerance And Diversity , Unity And Diversity
- Vasudhaiv Kutumbkam (Brotherhood To The Mankind)
- Duty Towarrs Parents And Elders.
 - Matru Devo Bhava, Pitru Devo Bhava,

Acharya Devo Bhava, Atithi Devo Bhava.

- Joint Family And Institution Of Marriage-Importance And Merits –Family Hood
- Nary Tu Marayani- Honor To The Female

Reference book

- 1. Experiment with the truth –M.K. Gandhi- Navjivan Prakashan, Ahmedabad
- 2. ; JINI VG[IX1F6v DG]EF. 5'RM, L
- 3. UFWLHL G/IX1F6 NXG VDGF H XaNNDF/v DPHNP58[,
- 4. DMTLEF. 581, VIJ JGF X1FIGS xglaul/GJL TF, LDGF 5FIFGF TtJMGMI: JSFZ4SMOI/VVMS8NUAZ VZ_!Z
- 5. Any book on "Value education" related to the above topics which covers both the units.

SEMESTER IV

EG-221 Entrepreneurship development and Small scale business management EG-222 Human Rights

HEN	HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN				
Programme	code :	B.Sc.	Programme Name :	Entrepreneurship Development and Small Scale Business Management	
Course Cod	е	EG221	Semester :	IV	
		Persona	lity Development		
Course type	e:	Elective Generic	Total credit :	02	
Teachii (hoi	ng time urs)		Examination Marking so	heme	
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

Entrepreneurship Development and Small Scale Business Management

Unit I

- 1. Entrepreneurship -Concept and Theories
- 2. Entrepreneurship Development
- **3.** Steps in Setting Up a Small Business Enterprise
- 4. Small Business Analysis Skills and Market research

Unit II

- 1. Preparation of Business plan
- 2. Financial management issues in SSE
- 3. Operational management issues in small scale enterprise
- 4. Marketing Management Issues in SSE

Reference book

IGNOU study material for entrepreneurship course

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	e code :	B.Sc.	Programme Name :	Human Rights	
Course Coo	le	EG 222	Semester :	IV	
Personality Development					
Course type :		Elective Generic	Total credit :	02	
Teaching time (hours)		Examination Marking scheme			
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50	50	

Human Rights

UNIT:1

- 1. Meaning And Evolution Of Human Rights , Nature , Concept Development & Importance
- 2. Human Rights In India : Civil and Political Rights International Documents

UNIT:2

- 1. Social & Economics Rights
- 2. Implementation of Human Rights
- 3. Human Rights Agencies: Structure, And Organization
 - (i) National Human Rights Commission
 - (ii) National Commission For Women
 - (iii) Special Commissions For Weaker Sections-SC, ST And OBC

Books Recommended

- 1. C.Jamnadas & co. Concept of Human Rights
- 2. Deep & Deep Publication –Human Rights
- 3. Eastern Book Agency Human Rights
- 4. C.J. Nirmal (Ed.), *Human Rights In India: Historical, Social And Political Perspectives* New Delhi: OUP, 2000, Reprint Of 1995.
- 5. Centre For Development And Human Rights, *The Right To Development: A Primer* New Delhi: Sage, 2004
- 6. V.T. Thamilmaran, Human Rights In Third World Perspective New Delhi: Har Anand, 1992
- 7. G.S. Bajwa, Human Rights In India: Implementation And Violations New Delhi: Anmol, 1995
- 8. R.C. Hingorani, Human Rights In India New Delhi: OUP And IBH, 1985
- 9. Aftab Alam (Ed.) Human Right In India: Issues And Challenges Delhi: Raj, 2000
- 10. Amnesty International, *Human Rights In India* New Delhi: Vistaar, 1993
- 11. Sunita Samal, Human Rights And Development In Emerging World Order New Delhi: Kanishka, 2003.
- 12. Tim Dunne And Nicholas J. Wheeler (Eds.), *Human Rights In Global Politics,* Cambridge University Press, Cambridge, 1998

SEMESTER V

EG-311 Database Management System

EG-312 Indian Constitution

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	e code :	B.Sc.	Programme Name :	Database Management System	
Course Coo	le	EG 311	Semester :	V	
Personality Development					
Course type :		Elective Generic	Total credit :	02	
Teaching time (hours)		Examination Marking scheme			
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	20	30	50	

Database Management System

Unit I

- 1. Properties of a Database
- 2. Prevalent Database Models
- **3.** Conceptual Database Design Components
- 4. Logical/Physical Database Design Components

Unit II

- 1. Getting Started in Microsoft Access
- 2. The Microsoft Access Relationships Panel
- 3. The Microsoft Access Table Design View
- **4.** Creating Queries in Microsoft Access

Reference Book

Database demystified : A self-teaching guide, Andrew J. (Andy) Oppel, McGraw-Hill Publication

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	code :	B.Sc.	Programme Name :	Indian Constitution	
Course Cod	е	EG 312	Semester :	V	
Personality Development					
Course type :		Elective Generic	Total credit :	02	
Teaching time (hours)		Examination Marking scheme			
Theory	Practical	Internal	External	Total	
(hrs)	(hrs)	(Marks)	(Marks)	(Marks)	
2	-	-	50	50	

Indian Constitution

Unit I

Preamble: Preamble of the constitution [1*] and its importance [2]. Important words used in Preamble: Sovereign [3], Socialist [3], Secularism [4], Democratic [4], Republic [5], Fraternity [5], Equality [5], Liberty [5]. Federal system and its main characters [8]. The Constitution of India whether Federal? [9].

The Union and its Territory: The Union and its Territory [13], Admission of new states [14], Formation of new states and alteration of areas, boundaries or names of existing states [14].

Fundamental Rights and Duties: Fundamental Rights: Only Six-types (only names) [26], Fundamental Rights and Human Rights [26]. Fundamental Duties [93].

Unit II

The Union: Qualifications for The President of India [96], Executive power of the Union [96], Constitutional position of The President [97], Election of President [98], Powers of the President [99-103]. The Vice President of India [104], Election of Vice President [104 - 05], Council of Ministers: Council of Ministers to aid and advise President [106], Other provisions as to Ministers [106-109].

Parliament: Constitution of Parliament [116], Composition of t he Council of States [116], Composition of the House of the People [117], Duration of Houses of Parliament [118], Qualification for membership of Parliament [119]. The Chairman and Deputy Chairman of the Council of States [121], The Speaker and Deputy Speake r of the House of the People [122], Joint sitting of Both Houses in Certain Cases [134 -136].
The Union Judiciary: Establishment and Constitution of Supreme Court [148-151], Original Jurisdiction of Supreme Court [153], Advisory Jurisdiction of Supreme Court [164], Comptroller and Auditor General of India [168].

Major reading:

(* Page Number from) **Karia A N** (2010-11) **Bharatiya Bandharan**, C. Jamnadas's Co., C-18, Madhupura Market, Near Office of the Police Commissioner, Shahibaug Rd., Ahmedabad -380 004 (Phone: 30289001)

Other readings:

NCERT Book For Class XI : Indian Constitution at Work Political Science . http://www.upscportal.com/civilservices/ncert -books/class-xi-indian-constitutionat-work-political-science

SEMESTER V

EG-321 Information Technology EG-322 Naturopathy

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN				
Programme	code :	B.Sc.	Programme Name :	Information Technology
Course Cod	е	EG 321	Semester :	VI
Personality Development				
Course type :		Elective Generic	Total credit :	02
Teaching time (hours)		Examination Marking scheme		
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)
2	-	20	30	50

Information Technology

Unit I

- 1. introduction to information technology
- 2. information technology: an overview
- **3.** Basics of Internet : Introduction, History, Internet Management, Definitions of Internet , Growth of Internet,
- 4. Accessing the Internet and Internet Service Providers (ISPs)

Unit II

- 1. Internet services : Introduction, World Wide web, How does web work, Web server, Web browsers,
- 2. Mark-up Languages and Internet Applications
- **3.** Internet Information Resources
- 4. Search Engines

Reference Books

IGNOU study material for Information technology

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN					
Programme	code :	B.Sc.	Programme Name :	Naturopathy	
Course Coo	le	EG - 322	Semester :	VI	
Personality Development					
Course type :		Elective Generic	Total credit :	02	
Teaching time (hours)		Examination Marking scheme			
Theory (hrs)	Practical (hrs)	Internal (Marks)	External (Marks)	Total (Marks)	
2	-	-	50 Sturron at hy	50	

Naturopathy

Unit:1

- 1.1 pakutk +vn AaroGyni cavi, petīvo
- 1.2 tlv/rogo xrdl,tav,zaDa,]| 31,]| ka,ma4udqvµxrlr dqvµ
- 1.3 + Rogo b5tra 4vl, qasl,qj>va5,so=eAaqo Aavvl
- $1.4 + vnn \delta vdx R I ohln \delta eudba`, camDina rogo,$

kol ay31s, Ãepør,v21v

Unit:2

2.1 slyRtan, par ayam, yog

2.2 Spa{nl koDRba4, k3l Snan, S3lm ba4

2.3 ma31 Snan, Aienma, mails, msaj

2.4 insgo@carnl sf5ta -kmal , Aamvat, m2pphe, sfe dag, S40ta dm

sdwRsaihīy

- É. DaR+tle, AayRpakltk +vnxEl Anerog invar`, nv+vn pKaxn
- Ê. ga≥l+, AaroGynl cavl, nv+vn pKaxn midr. Amdavad-ÉÌ
- Ë. 71 vl.pl. igdva`l: kdrtl]pcarnl kmal : payog dXy pKaxn. Amdavad-ÉË