

KURUKSHETRA UNIVERSITY
B.A.B.Ed.- Ist SEMESTER SYLLABI AS PER CBCS PATTERN

Semester I

B. A. B. Ed. (CBCS) Semester- I

GROUP A: ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)

Semester I

AEC1(I): LANGUAGE SKILLS (HINDI)-I

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.

ii) Q.No. 1 will be compulsory and will carry 12 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.

iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 12 marks each.

iv) All questions will carry equal marks.

Objectives:

- To enable the students to acquire basic skills in functional language.
- To develop independent reading skills and reading for appreciating literary works.
- To internalize grammar rules so as to facilitate fluency in speech and writing.
- To develop functional and creative skills in language.
- To develop values of liberalism and an insight into the cultural heritage of the region which remains embodied in the literary output of the region.

Transaction Mode :

Lecture cum discussion, group discussion, panel discussion, seminar group work, library work.

COURSE CONTENT :

Unit I: History of Language and Literature-1

Hindi Bhasha aur Sahitya ka Itihas [Aarmbha se Lekar 1857 Tak]

Unit II: Short Story-1 [Pre-Independence Literature]

Swatantratapurva Hindi Kahani Ka Vikas

1. Chandradhar Sharma Guleri- Usne Kaha Tha
2. Jayshankar Prasad- Puraskar
3. Premchand- Panch Parmeshwar
4. Jainendra- Ek Raat

Unit III: Short Story-2 [Post-Independence Literature]

Swatantrayottar Hindi Kahani Ka Vikas

1. Mohan Rakesh- Uski Roti
2. Kamleshwar- Dilli Mein ek Maut
3. Phanishwar Nath Renu- Teesari Kasam
4. Bhism Sahani- Cheef ki Dawat

Unit IV: Communication skill:

Group Discussion [Samooch Charcha]

Introduction – Definition – Characteristics – Types of Discussion –Round table, Symposium, Lecture forum etc. – Relevance of Group Discussion – Exercises.

Reference:

1. Hindi Sahitya Ka Itihas: Ramchandra Shukla Rajkamal Prakashan, Delhi
2. Hindi Sahitya Ka Itihas: Dr Nagendra, Mayoor Paperbacks, Delhi
3. Hindi Sahitya Ki Bhoomika: Hajari Prasad Divedi Rajkamal Prakashan, Delhi
4. Hindi Sahitya Ka Adikaal: Hajari Prasad Divedi Rajkamal Prakashan, Delhi
5. Hindi Sahitya Ka Udbhav Aur Vikas: Hajari Prasad Divedi Rajkamal Prakashan, Delhi
6. Hindi Sahitya Ka Ateet: Viswanath Prasad Mishra, Rajkamal Prakashan, Delhi
7. Bhakti Aandolan Aur Bhaktikavya: Shivkumar Mishra, Lokbharti Prakashan, Delhi
8. Bhakti Aandolan aur Surdaska Kavya: Maneger Panday, Vani Prakashan, Delhi
9. Bhakti Ke Aayam: Dr P Jayraaman, Vani Prakashan, Delhi
10. Bhartiya Bhakti Sahitya: Dr Rajmal Bora, Vani Prakashan, Delhi
11. Bhaktikavya ka Samajdarshan: Dr Premshankar, Vani Prakashan, Delhi
12. Hindi Sahitya Ka Sanchhipt Itihas: Nanddulare Bajpayee, Swaraj Prakashan, Delhi
13. Hindi Sahitya ka Sanchhipt Itivritt: Shivkumar Mishra, Vani Prakashan, Delhi
14. Hindi Kahani- Antarang Pahchan: Dr Ramdars Mishra, Vani Prakashan, Delhi
15. Hindi Kahani-Sanrachana aur Samvedana: Dr Rachna Saah, Vani Prakashan, Delhi
16. Galp Ka Yatharth-Kathaloochan ke Aayam: Suvas Kumar, Vani Prakashan, Delhi
17. Hindi Ka Gadyaparva: Namvar Singh, Rajkamal Prakashan, Delhi
18. Sahitya ki Pahchan: Namvar Singh, Rajkamal Prakashan, Delhi
19. Katha Vivechan aur Gadyashilp: Ramvilas Sharma, Vani Prakashan, Delhi
20. Kahani Anubhav aur Abhivyakti: Rajendra Yadav, Vani Prakashan, Delhi

Suggested Activities:

In the internal class during the different activities the performance of the student will be assessed by the teacher. Test, assignments and small projects works may be given .

GROUP A: ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)

Semester I

AEC1(I): LANGUAGE SKILLS (ENGLISH) –I

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 16 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

Objectives:

Students develop proficiency in English which equips them to:

- understand the demands of audience, subject, situation and purpose and the use of language for effective communication.
- analyse language in context to gain an understanding of grammar, vocabulary, spelling, punctuation and speech.
- examine authentic literary and non-literary texts and develop insight and appreciation.
- gain an understanding of study and reference skills.
- plan, draft, edit and present a piece of writing.

COURSE CONTENTS

Unit I: Descriptive Grammar

1. Tenses:

- a) Simple Present: Habitual action, General truths, Future time, Verbs of state, Verbs of perception, Verbs of sensation, Narration, Use of simple present for demonstration and commentaries, Present perfect, present perfect continuous, Present continuous also indicative of future action.
- b) Simple past: Past time reference, Present time reference, Future time reference, Past continuous, Past perfect, past, perfect continuous

Unit II: Skills in Communication

1. Negotiating a point of view – learning to talk persuasively so as to get across one's perspective.
2. Debating on an issue – agreeing / disagreeing.

Unit III: Study and Reference Skills

Note making; Note-taking; Summary writing.

Comprehension Skills

Extracts from literary, scientific and educational journals.

Unit IV: Skills of Communication

Advanced Writing Skills, writing advertisement copy; Writing a project proposal and Writing Resume, sending an application.

Listening effectively; Talking about one self (likes, dislikes, interests, beliefs, personality traits, ambitions); Expressing an opinion about personal belief on a current issue. (Ability to speak fluently for 3-4 minutes. Focus would be on organized, logical, sequential presentation of thought through spontaneous speech).

Suggested Activities:

- Politeness competitions- students with partners take turns in using a given number of utterances for negotiation / requests/complaints/small talk.
- Students introduce themselves though using symbols/ metaphors.
- Students collect newspaper/magazine cuttings on topical and/ or cultural issues of interest-write and share their opinion with peers.

References:

- Block, C.C. (1997). Teaching the Language Arts, 2nd Ed. Allyn and Bacon
- Mckay. et al. (1995). The Communication Skills Book, 2nd Ed. New Harbinger Publications.
- Hornby,A.S.(2001).Oxford Advanced Learner's Dictionary, OUP
- Thomsan,A.J. & Martinet.(2002).A Practical English Grammar.OUP

GROUP A: ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)
Semester I
AEC2(I): INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN
EDUCATION-I

Time: 3 Hours

Max. Marks: 100

Credits- 4 (Theory: 60, Internal: 20, Practical :20)

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- iv) All questions will carry equal marks.

Objectives of the course:

On completion of the course the students will be able to:

- Appreciate the historical development of various educational media.
- Identify and demonstrate an understanding of the main components of the computer hardware in use.
- Differentiate various operating system and explain main functions of the system and application software environment.
- Use a word processor, spread sheet, drawing and presentation software to produce various teaching learning resources for educational use.
- Use internet technologies efficiently to access remote information, communicate and collaborate with others.
- Model collaborative knowledge construction using various web 2.0 tools and technologies.
- Understand the social, economic, security and ethical issues associated with the use of ICT.

COURSE CONTENTS

Unit I: Learning and Technology

- How technology enhance learning: basic theories of communication, system theory and learning theory
- Historical account of the development of various educational media (audio, video, print, storage, display, projection)
- Communication process and role of technology in communication
- Information and Communication Technology: Meaning, nature and advantages

- Media literacy and digital literacy – need and importance
- Digital divide and enhancing access
- National ICT policies, curriculum, schemes and programmes
- Cyber security: privacy, hacking, virus, spy ware, misuse, abuse, antivirus, firewall, and safe and ethical practices

Unit II: Fundamentals of Information and Communication Technology

- Computer hardware fundamentals (anatomy, input devices, output devices, storage devices, display devices)
- Computer Network-LAN, WAN. Internet – concept and architecture ; Locating internet resources – browsing, navigating, searching, selecting, evaluating, saving and bookmarking
- Licenses – software license, document license, fair use and piracy
- File formats and conversion, utility tools
- Cloud computing: meaning, types, and advantages

Unit III: Computer Software

- Digitalization, software –meaning and types
- Source and binary code. Proprietary software, Open Source software, shareware and freeware- concept, philosophy, types, and advantages.
- Operating systems –meaning, types –Windows, Linux, Macintosh – Navigating the desktop, control panel, file manager, explorer, and accessories
- Software as Service – Online software tools and applications and their educational use
- Managing the ICT infrastructure: software installation, troubleshooting of hardware, seeking and providing help, storage and backup, updating and upgrading software

Unit IV: Application Software

- Application software- meaning and types
- Word processing, spreadsheet, presentation: Features and educational applications (Unicode)
- Drawing tools – diagrams, concept maps, timelines, flow charts: educational applications of these tools
- Web 2.0 technology and tools: meaning characteristics and types
- Social networking and social book marking – educational applications
- Blog and micro blog – reflective journaling and other educational applications
- Wiki – collaborative authoring and projects
- Instant messaging and its educational applications
- Online forums/discussion groups and chats: educational applications
- Social media sharing – video, presentations, audio (podcasts), graphics, and text
- Web 2.0 tools for creating, sharing, collaborating, and networking

Sessional Activities:

- Hands on experience in setting up a desktop PC and working with various input devices, output devices, storage devices, and display devices

- Practicing word processing using Indian language software
- Practice in installing various system and application software
- Using word processor, spread sheet, and presentation software to produce various teaching learning resources and sharing it online
- Locating internet resources – navigating, searching, selecting, saving and evaluating (use standard internet evaluation criteria)
- Creating social bookmarking account and creating social bookmarking of internet resources using any social bookmarking tools (diigo,delicious, stumbleupon)
- Creating digital concept maps, flow charts, timelines for a particular content using online and offline tools
- Creating account in teachertube/slideshare and sharing your video/presentation. View and comment on others contributions
- Creating account in wikispace/wikipedia/mediawiki and adding/editing content
- Developing an educational blog in www.blogger.com, www.wordpress.com, or www.edublog.com
- Review of national ICT policy and curriculum

Suggested Readings

1. Andrew A Kling(2010). Web 2.0 (Technology 360). Lucent Books: New Delhi
2. Andrew M. St. Laurent. (2004). Understanding Open Source and Free Software Licensing. Oreilly: Cambridge
3. Bharihok Deepak. (2000). Fundamentals of Information Technology. Pentagon Press: New Delhi
4. Crumlish Christian (1999). The Internet No Experience Required. BPB Publications: New Delhi
5. Evant, M: The International Encyclopedia of Educational Technology.
6. Gwen Solomon, Lynne Schrum. (2014). Web 2.0 How-to for Educators, Second Edition. ISTE
7. James, K.L. (2003). The Internet: A User's Guide. Prentice Hall of India Pvt. Ltd: New Delhi
8. Jean-Eric Pelet (2014). E-Learning 2.0 Technologies and Web Applications in Higher Education (Advances in Higher Education and Professional Development (Ahepd)). Idea Group: U.S.
9. Mishra, S. (Ed.) (2009). STRIDE Hand Book 08: E-learning. IGNOU: New Delhi. Available at http://webserver.ignou.ac.in/institute/STRIDE_Hb8_webCD/STRIDE_Hb8_index.html
10. Sarkar, S.K. & Gupta, A.K.(1998). Elements of Computer Science. S. Chand & Company: New Delhi

ENG 101 Introduction to English Literature

Time: 3 Hours

Max. Marks: 100

Credits- 4 (Theory: 80, Internal: 20)

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iv) All questions will carry equal marks.

Objectives: The students will be able to:

- Have an understanding of historical development of English literature
- Make themselves aware of various literary genres and figures of speech
 - Make themselves familiar with various schools of thought and literary movements

Unit	Content
Unit I Elements of Literature	<ul style="list-style-type: none">➤ Meaning of Literature➤ Literature and Language➤ Literature, Society and Culture➤ Literature and Education➤ Ordinary vs. Literary Language➤ Literature and Figurative Language➤ Old English (or Anglo-Saxon) Period and Middle English Period
Unit II History of English Literature I	<ul style="list-style-type: none">➤ The Renaissance (Elizabethan Age, Jacobean Age, Caroline Age, Commonwealth Period or Puritan Interregnum)➤ The Neoclassical Period (The Restoration, The Augustan Age or Age of Pope, The Age of Sensibility or Age of Johnson)
Unit III History of English Literature II	<ul style="list-style-type: none">➤ The Romantic Period➤ The Victorian Period (The Pre-Raphaelites, Aestheticism and Decadence)➤ The Edwardian Period
Unit IV History of English Literature III	<ul style="list-style-type: none">➤ The Georgian Period➤ The Modern Period➤ Postmodern Period

Suggested Readings

(*Reading lists may overlap in terms of subject matter. Therefore, students are advised to consult them accordingly.)

Unit I

- Prasad, B. *A Background to the Study of English Literature*. MacMillan. 1999.
- Rainsford, Dominic. *Studying Literature in English: An Introduction*. Routledge. 2014.
- Scholes. R et al. (Ed.). *The Elements of Literature*. OUP. 2005.
- Mays, Kelly J. *The Norton Introduction to Literature*. W. W. Norton & Company. 2017.
- Hudson, W.H. *An Introduction to the Study of Literature*. Maple Press. 2012.
- Showalter, Elaine. *Teaching Literature*. Wiley-Blackwell. 2002.
- Yadav, Saryug. *Language, Literature and Education*. Academic Excellence. 2008.

Unit II

- Simpson, Paul. *Language through Literature: An Introduction*. Routledge. 2003.
 - Barnet, Sylvan. *An Introduction to Literature Fiction, Poetry, and Drama*. 15th Ed. Pearson Longman. 2008.
 - Bennett, Andrew and Nicholas Royle. *An Introduction to Literature, Criticism and Theory*. Pearson Longman. 2004.
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- Mays, Kelly J. *The Norton Introduction to Literature*. W. W. Norton & Company. 2017.
 - Abrams, M. H. and Geoffrey Galt Harpham. *A Glossary of Literary Terms*. 11th Ed. Cengage Learning India Private Limited. 2015.
 - Cuddon, J. A. and M. A. R. Habib. *The Penguin Dictionary of Literary Terms and Literary Theory*. 5th Ed. Penguin. 2015.
 - Gray, Martin. *A Dictionary of Literary Terms (York Handbooks)*. 2nd Ed. Longman. 1992.
 - Rees, J.A. *English Literature: An Introduction for Foreign Readers*. Macmillan. 1974.
 - Fowler, Roger. *A Dictionary of Modern Critical Terms*. Routledge. 1987.
 - Wolfreys, Julian. *The English Literature Companion*. Palgrave. 2010.

Unit III

- Thornley, G.C. and Gwyneth Roberts. *An Outline of English Literature*. Pearson India. 2011.
- Birch, Dinah. *The Oxford Companion to English Literature*. 7th Ed. OUP. 2009.
- Carter, Ronald et al. *The Routledge History of Literature in English: Britain and Ireland*. 2nd Ed. Routledge. 2011.
- Chowdhury, Aditi et al. *A History of English Literature: Traversing the Centuries*. Orient BlackSwan. 2014.
- Hudson, W. H. *An Outline History of English Literature*. Maple Press. 2012.
- Ifor Evans. *A Short History of English Literature*. Penguin. 2015.
- Choudhury, B. *English Social and Cultural History: An Introductory Guide and Glossary*. Prentice Hall India Learning Private Limited. 2005.

Unit IV

- Trevelyan, G. M. *Illustrated History of England*. Longman. 1973.

- Alexander, Michael. *A History of English Literature*. Palgrave. 3rd Ed. 2013.
- Bate, Jonathan. *English Literature: A Very Short Introduction*. OUP. 2010.
- Daiches, David. *A Critical History of English Literature* Vol.1 & 2. Supernova Publishers. 2012.
- Toyne, Anthony. *An English Reader's History of England*. OUP. 2006.
- Trevelyan, G. M. *English Social History*. Penguin. 1987.
- Blamers, Harry. *A Short History of English Literature*. Routledge. 1984.

HIN 101: Hindi

Time: 3 Hours
Credits- 4

Max. Marks: 100
Theory: 80, Internal: 20

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पृष्ठभूमि: भाषा कौशल का अभिप्राय कौशलों के उस समूह से है जो किसी भी प्रकार के विचार और भाव सम्प्रेषण के लिए अनिवार्य हैं। भाषा कौशल सभी प्रकार के अधिगम और शिक्षण प्रक्रिया के लिए पूर्वपेक्षित आवश्यकता है। अतः भाषा और भाषा कौशल का अर्जन, सभी शैक्षिक-व्यावहारिक कौशलों में महत्वपूर्ण है। भाषा कौशल के अंतर्गत विभिन्न परिवेशों और परिस्थितियों में विभिन्न उद्देश्यों हेतु भाषा का समुचित प्रयोग सम्मिलित है। प्रस्तुत पाठ्यक्रम का उद्देश्य इन्हीं आवश्यकताओं के अनुरूप विद्यार्थियों (प्रशिक्षु-शिक्षक) के भाषाई कौशल का विकास और भाषा ज्ञान का परिवर्धन करना है।

उद्देश्य: प्रस्तुत पाठ्यक्रम के द्वारा विद्यार्थी:

- भाषा के माध्यम से अपने सम्प्रेषण कौशल का विकास कर सकेंगे।
- भाषा प्रयोग के ज्ञान में अभिवृद्धि कर सकेंगे।
- विभिन्न भाषाई कौशलों का विकास कर सकेंगे।
- भाषा से सम्बंधित विभिन्न अन्य कौशलों का विकास कर सकेंगे।
- विद्यार्थियों को भाषा की प्रकृति संरचना एवं भूमिका से अवगत कराना।
- विद्यार्थियों में सम्प्रेषण की दक्षताओं का विकास करना
- विद्यार्थियों में भाषा की प्राथमिक बुनियादी दक्षताओं का विकास (सुनना, बोलना, पढ़ना, लिखना)
- विद्यार्थियों में सूचना एवं संचार प्रौद्योगिकी (आई सी टी) की अवधारणा एवं भाषा के माध्यम से आत्म विकास की योग्यता उत्पन्न करना।

इकाई 1 भाषायी कौशल एवं विकास

- आधारभूत भाषायी कौशल (सुनना, बोलना, पढ़ना, लिखना)

इकाई 2 मौखिक सम्प्रेषण में हिंदी भाषा व्याकरण

- लिखित एवं मौखिक भाषा की भूमिका, बोली, स्वीकृत (विकासशील) भाषाएँ।
- हिंदी भाषा की ध्वनि व्यवस्था एवं लिपि।
- सम्प्रेषण में ध्वनि एवं लिपि का महत्व

इकाई 3 सम्प्रेषण दक्षताओं का संवर्धन

- सम्प्रेषण की अवधारणा,
- सम्प्रेषण के प्रकार (मौखिक एवं सांकेतिक)
- सम्प्रेषण में शारीरिक हाव भाव की भूमिका (आंगिक चेष्टाएँ)
- प्रभावी सम्प्रेषण के तत्त्व, सम्प्रेषण के अवरोध, सम्प्रेषण में उच्चारण एवं विराम चिह्नों की भूमिका।

इकाई 4 संचार तकनीकी, भाषा एवं आत्म विकास

- संचार तकनीकी (अवधारणा, प्रकृति, प्रकार, कार्य एवं संभावनाएँ)
- भाषाई कौशल विकास में सूचना एवं संचार तकनीकी की भूमिका
- ई-मेल लेखन, बायोडाटा लेखन, समूह विमर्श एवं प्रस्तुतीकरण
- सामाजिक संवेदना एवं जागरूकता के विकास में भाषा एवं सोशल मीडिया की भूमिका
- व्यक्तित्व एवं आत्मविकास के विकास में भाषा एवं संचार माध्यमों की भूमिका।

सहायक पुस्तकें -

- हिंदी शिक्षण का आधार पत्र (पोजिशन पेपर) एन.सी.ई.आर.टी. प्रकाशन
- भारतीय आर्य भाषाओं का इतिहास - डॉ. जगदीश प्रसाद दीक्षित, अपोलो प्रकाशन, जयपुर
- हिन्दी भाषा का ऐतिहासिक व्याकरण - डॉ. माताबदल जायसवाल
- नागरी लिपि और उसकी समस्याएँ - डॉ. नरेश सिंह मंधन पब्लिकेशन रोहताक
- देवनागरी लिपि - डॉ. शिव शंकर प्रसाद
- सामान्य भाषा विज्ञान - अम्बा प्रसाद सुमन
- भाषा का समाज शास्त्र - डॉ. राजेन्द्र प्रसाद सिंह, राजकमल प्रकाशन, दिल्ली
- हिंदी व्याकरण एवं रचना : मानावत एवं जोशी
- अभिव्यक्ति एवं माध्यम, एन.सी.ई.आर.टी. प्रकाशन
- हिंदी शिक्षण - रमन बिहारी लाल

GEO 101: Principles of Geography

Time: 3 Hours
Credits- 4
:20

Max. Marks: 100
Theory: 60, Internal: 20, Practical

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- iv) All questions will carry equal marks.

Objectives:

1. *To explain the distinct characteristics of geography as a discipline.*
2. *To explain the earth as a physical entity as well as a home of human beings.*
3. *To understand the earth as constituted by diverse regions.*

Unit 1: Meaning, nature and scope of geography; Approaches to geography; Fundamental concepts: space, location, spatial distribution, areal association, spatial interaction (movement), place and spatial change.

Unit 2: Origin of the earth; Size, shape and movement of the earth; Internal structure of the earth; Major land forms and water bodies; Physical processes: endogenetic (earthquakes and volcanic eruptions) and exogenetic (weathering and erosion).

Unit 3: Distribution and growth of world population; Principles of human adaptation and adjustment; Human modifications of the earth, Meaning and types of rural and urban settlements.

Unit 4: Regions: meaning and types; Regionalization; Natural, cultural and geographical regions of the world.

Reading List

- 1 Bergman, 2007: *An Introduction to Geography*, Pearson
- 2 Blij, Harm J., Muller, Peter O and Nijman, Jan 2012: *Geography: Realms, Regions and Concepts*, 5th edition, Wiley
- 3 Bonnett A., 2008: *What is Geography?* Sage Publications.
- 4 Broek, Jahn O. M. and Webb, John W. 1978: *A Geography of Mankind*, 10(2884)

McGraw-Hill

- 5 Hagget, Peter, 2001: *Geography: A Global Synthesis*, Prentice Hall
- 6 Leong, Goh Cheng 1974: *Certificate Physical and Human Geography*, Oxford University Press.
- 7 Christopherson, Robert W., 2011: *Geosystems: An Introduction to Physical Geography, 8th Ed.*, Macmillan Publishing Company
- 8 Singh, S 2009: *Bhautik Bhugol ka Swaroop*, Prayag Pustak, Allahabad (Hindi)
- 9 Selby, M.J., 2005: *Earth's Changing Surface*, Indian Edition, OUP
- 10 Canby, Y Thomas, 1994: *Our Changing Earth*, MapQuest.com
- 11 Rubenstein, James M. and Bacon, Robert S. (1990): *The Cultural Landscape: An Introduction to Human Geography*. New Delhi: Prentice-Hall of India Private limited.
- 12 Rubenstein, James M. 2012: *Contemporary Human Geography*. New Delhi: PHI Learning Private limited.
- 13 Knowles, R. and Wareing, J. 1986: *Economic and Social Geography Made Simple*. New Delhi: Rupa and Co.
- 14 Fielding, Gordon J. 1974: *Geography as a Social Science*. New York: Harper and Row, Publishers
- 15 Dikshit, R. D. 1994: *The Art and Science of Geography*. Integrated Readings. ed. New Delhi: Prentice-Hall of India Private limited.
- 16 Gregory, Derek et. al. 2009: *The Dictionary of Human Geography*. eds. Oxford: Wiley-Blackwell.
- 17 Husain, Majid 2010: *Human Geography*. Jaipur: Rawat Publications.

Practicals

Map Reading and Interpretation

**Total credit: 1
week**

**Contact hours: 2 per
week**

Map: Meaning, principles of map design and types of maps Graphical construction of Linear, Diagonal and Comparative scales Interpretation of topographical sheet

Practical Record: Students will be required to prepare a practical file consisting of all exercises in the paper. **Assessment Modalities:** The assessment modality will involve a term-end examination towards the end of the semester.

- The term-end examination will carry a weightage of 30 marks. Duration of examination will be 3 hours.
 - Lab Work (Any 3 out of 4 exercise) 15 Marks
 - Record File 10 Marks
 - Viva 05 Marks

Reading List

- 1- Tyner J. A., 2010: *Principles of Map Design*, The Guilford Press.
- 2- Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
- 3- Monkhouse F. J. and Wilkinson H. R., 1973: *Maps and Diagrams*, Methuen, London.
- 4- Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers, Meerut.
- 5- Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.
- 6- Singh, L R & Singh R (1977): *Manchitra or Paryaogatamek Bhugol* , Central Book Depot, Allahabad
- 7- Singh, R.L. & Singh Rana, P.B. 1992: *Elements of practical Geography*, New Delhi: Kalyani Publisher.

HIS 101 Evolution of Indian Culture and Thought

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 12 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 12 marks each.
- iv) All questions will carry equal marks.

Objectives: The students will be able to:

- know about the glorious past of our country
- know about the thoughts embedded in *Bharteeya* culture and civilization
- appreciate the art and aesthetics

of Indian culture The paper will be divided into four (4) Units

Content

- | | |
|-----------------|--|
| Unit I | <ul style="list-style-type: none">➤ Name of Country: Aryavarta, Jambudweepa, Bharat, India➤ Indian Culture: salient features, Vedic Culture and Civilization: States, Society, Economic and Religion➤ Varnashram system,➤ Shodash Sanskars: Purusharthas |
| Unit II | <ul style="list-style-type: none">➤ Impact of Ramayan and Mahabharat of Indian society➤ Cultural importance of Puranas➤ Contribution of Jainism and Buddhism to Indian culture.➤ Vaishnavism, Shaivism and Shaktism |
| Unit III | <ul style="list-style-type: none">➤ Development of Science in ancient Bharat up to Guptas➤ Development of Art and Architecture: Maurayns, Post Mauryans (Mathura and Gandhara schools of Art) and Guptas➤ Art and Architecture in South India: Pallavas and Cholas➤ Art and Architecture: Sultanat and Mughal Period: Major Buildings, Sculpture , Painting |
| Unit IV | <ul style="list-style-type: none">➤ Six systems of Indian Philosophy➤ Bhakti cult and Sufism➤ Main Centres of Ancient Indian Education➤ Greater India: Expansion of Indian culture abroad |

Tutorials/ Practicum: Students will work in groups on the practical aspects of the knowledge gained during contact/lecture periods; Peer group teaching may be encouraged. Hard spots if any may be resolved during tutorials. Students be given to prepare a model *Aryavarta, Jambudweepa* and present Bharat.

Suggested Readings

- Rizvi, Saiyid Athar Abbas. *The Wonder That Was India. a Survey of the History and Culture of the Indian Sub- Continent from the Coming of the Muslims to the British Conquest, 1200-1700.* Picador India, 2005.
- Pant, Rajinikant. *Ancient Civilization in Science and Technology.* Rajasthan Hindi Granth Academy
- Sharma, copper Brij Kishore. *History of India(1750-1950).*Rajasthan Hindi Granth Academy
- Sharma, Krishangopal and Hukum Chand Jain.*India's political and Cultural history of India.* Rajasthan Hindi Granth Academy. Edition Fifth
- Gupta,Copper Shivkumar. *Foundations of Indian Culture.* Rajasthan Hindi Granth Academy
- Srivastava, A.L. *Mediaval Culture.* Shiva Lal Agarwala & Co.(P) Ltd.1964
- Majumdar, R.C. *Ancient India.* Bhartiya Vidya Bhavan. Bombay.
- Eraly ,Abraham. *The First Spring Part 1 life in the Golden Age of India.* Penguin India
- Eraly ,Abraham. *The First Spring Part 2 Culture in the Golden Age of India.* Penguin India
- Majumdar, R.C. *History and Culture of Indian People,(relevent vol..).* Bhartiya Vidya Bhavan. Bomby
- Chattopadhaya, D. P. *indian Philosophy*
- Agraval, V. S. *Indian Art. Vol.I*

POL 101 :FOUNDATIONS OF POLITICAL THEORY

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 12 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 12 marks each.
- iv) All questions will carry equal marks.

Objectives: On completion of the course the students – Teacher will be able to:

- Understand the nature and scope of Political Theory.
- Distinguish between the traditional and modern perspectives of Political Theory.
- To understand some basic concepts of Political Theory.
- Analyse state, its Component, Various theories of its origin and their bearing upon the nature of State
- Understand and analyses various systems of governance.
- Acquaint themselves with various aspects and agents involved in the political process. The paper will be divided into four (4) Units

Course Content

Unit I

Political Theory :Meaning, Nature and Scope,its Normative and Empirical perspectives, Behaviouralism and Post- Behaviouralism.

Unit II

State: Meaning and its Elements, Theories of origin of State, Social Contract and evolutionary Sovereignty.

Unit III

Concepts: Power (Laswell), Authority (Max Weber), Legitimacy , Political system (Easton), Political Development (Lucian Pye).

Unit IV

Forms of Government :Democracy and Dictatorship, Parliamentary and Presidential systems, Unitary and Federal systems.

Tutorials/ Practicum: Students will work in groups on the practical aspects of the knowledge gained during contact/ lecture period. Peer group teaching may be encouraged. Hard spots, if any, may be resolved during tutorials.

**Suggested
Readings**

- G.A.Almond: Comparative Politics Today: A world view, 7th end, New York, London.
- Sir, Barker, Principles of Social and Political theory
- ..Barry, Introduction to Modern Political Theory, London, Macmillan, 1995.
- A Brochl, Political theory: The foundations of Twentieth Century Political Thought, Bombay, The Times of India Press, 1965.
- D. Easton, the Political System: An Inquiry into the state of Political Science, New York, Wiley 1953.

ECO 101: Micro Economics

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 12 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 12 marks each.
- iv) All questions will carry equal marks.

Objectives: The students will be able to:

- Define and understand the various terms & basic concept of Economics.
- Describe meaning, nature and scope of Economics.
- Explain the theoretical and practical advantage of the study of Economics.
- Take into account different theories of Economics – like consumer behaviour, production, cost, market structure, etc.
- Analyze determination of equilibrium price and quantity of a commodity in individual firm and Industry under perfect competition, monopoly, monopolistic competition and oligopoly.

To explain the behavior of the economic agents in terms of factor pricing like rent, wage, interest and profit in distribution.

Unit I

Meaning, Nature, Scope, Methodology and Fundamentals of Economics

- Definitions of Economics,
- Nature of economics- as an arts or science,
- Methods of Economic Analysis: verbal argument or method of logical deduction- inductive and deductive logic; mathematical and geometrical method.
- Basic Concepts of Economics: *Human wants* - characteristics and types of wants; wealth, welfare, scarcity and growth;
- Genesis of economic activities – wants and satisfaction;
- Division of basic units of economic activities - consumption, production, exchange, distribution and public finance.
- Goods & Services - types of goods. Value & Prices– value-in-use & value-in-exchange.
- Importance and Uses of Microeconomics,
- Economic Problems: Scarcity and Choice,
- Scope of Economic Theory and

➤ Economic Problems

- Problems of Allocation of Resources, Production, Distribution of National Product,

Economic Efficiency, Problem of Full Employment of Resources, Problem of Economic Growth and Scarcity, Problem of Affluence, Positive Economics and Normative Economics,

UNIT-II

(a) Theory of Demand and Consumer Behaviour

- Significance of Demand Function, Individual Demand, Law of Demand , Reasons for the Law of Demand, Slope of the Demand Curve, Market Demand Function, Factors determining Demand, Expansion and contraction of demand curve, Elasticity of demand - Price, Income and Cross Elasticities.
- Utility Analysis: Marginal Utility, Measurement of utility. Wealth - characteristics, capital, money, income and welfare.
- Cardinal and ordinal approach to demand – Law of diminishing marginal utility, Consumer's Equilibrium, Principle of Equi-marginal Utility, Derivation of the Demand Curve, Critical Evaluation of Marshall's Cardinal Utility Analysis.
- Indifference Curve Analysis. Indifference Curve and Indifference Map, Marginal Rate of Substitution, Budget Line and Budget Space, Consumer's Equilibrium (Hicks & Slutsky), Giffen, goods, Compensating Variation in Income, Equivalent Variation in Income, Consumer's Surplus (Marshall and Hicks).

Theory of Supply, Production and Cost

- Factors of Production; Law of Supply; Factors affecting Supply; Production Function - short period and long period; Law of Variable Proportion, Returns to Scale,
- Isoquant -Least cost combinations of inputs: Choice of Inputs: Output Maximisation subject to cost constraint, Expansion path, Changes in factor prices; Factor substitution. The Expansion path of a Linear Homogeneous Production Function
- Concept of Cost: Total, average, marginal; Opportunity cost; Short run and Long run Costs – Internal and External Economies and Diseconomies and Cost Curves, Derivation of cost function from production function. Production Possibility Curve: Shift in Production Possibility Curve

UNIT-III

Theory of Revenue and Market Structure

- Concept of Revenue – TR, AR, MR, relationship between AR & MR.
- Meaning and classification of market structure; Objectives and Equilibrium condition of firm.
- Perfect competition- Characteristics, short run and long run equilibrium of the firm and industry; Determination of equilibrium price and output under perfect competition, Derivation of supply curve.
- Monopoly- characteristics, equilibrium price and output determination; Price discrimination,
- Monopolistic Competition- its characteristics, equilibrium price and output determination under monopolistic competition.
- Oligopoly - Characteristics, price and output, determination under Oligopoly.

Unit IV

Theory of Distribution and Wage determination

- Concept of productivity, Marginal productivity theory of distribution, Theory of distribution in imperfect product and factor market; Concept of Marginal Physical Product(MPP), Value of Marginal Product(VMP) and Marginal Revenue Product(MRP), Factor pricing under perfect competition and monopoly, Adding-up theorem.
- Theory of wage: Determination of wages under perfect competition and imperfect competition; Collective bargaining and Trade Union, Wage differential.
- Rent- Ricardian theory of rents, Modern theory of rent; Scarcity rent; Differential rent and Quasi-rent.
- Interest- Classical theory of interest; Keynes liquidity preference theory of interest;
- Profit – Schumpeterian theory of innovation and F.H. Knight's Risk & Uncertainty Theory of Profit.

Tutorials/ Practicum: Students will work in groups on the practical aspects of the knowledge gained during contact/ lecture period. Peer group teaching may be encouraged. Hard spots, if any, may be resolved during tutorials.

Suggested Readings*

(*Reading lists may overlap in terms of subject matter. Therefore, students are advised to consult them accordingly.)

1. Ahuja, H.L (1995), Advance Economics Theory(Microeconomic Analysis), Eight Edition, S. Chand & Company Ltd, Nam Nagar, New Delhi-110055
2. Baumal, W.J(1982) Economic Theory and Operation analysis, Prentice Hall of India, New Delhi
3. D.N. Dwivedi(2016), Microeconomics, Theory & Application, Third Edition, Vikash Publishing House, Pvt Ltd.
4. Jhingan, M.L(2010), Advance Economic Theory, 12th Edition, Vrinda Publications(p) Ltd.
5. Koutsoyiannis, A (1979), Modern Micro Economics, Mac Millan Press, London.
6. Kreps, David M(1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
7. Seth, M.L(1989), Principle of Economics(Micro and Macro Economics), Twenty Fourth Edition, Laxminarayan Agarwal, Educational Publishers, Hospital Road, Agra-3
8. Varian, H(2000) Microeconomic Analysis, W.W. Norton , New York.
9. Allen, R.G.D(1974), Mathematical Analysis for Economists, Mac Millan Press and ELBS London
10. Baumal, W.J (1984) Economic theory and Operational Analysis, Englewood Cliffs, New Jersey

GROUP E: PROFESSIONAL EDUCATION COURSES (PEC)

I: Perspectives in Education (PE)

Semester I

PEBE 101: BASICS IN EDUCATION

Time: 3 Hours

Max. Marks: 100

Credits- 4

Theory: 80, Internal: 20

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 16 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 16 marks each.
- iv) All questions will carry equal marks.

Objectives of the Course: On the completion of course, the student teacher will be able to:

- Understand and analyze educational concepts, their premises and contexts that are unique to education.
- Understand the nature and purpose of education with reference to school knowledge.
- Learn to avail opportunity for interactive and reflective modes of learning.
- Understand the concepts of teacher and learner's autonomy.
- Become aware of importance to values and value formation process in education.

COURSE CONTENTS

Unit I: Education: Nature, Purpose and Process

- Meaning, Nature, Purpose and Importance of Education: Education as a purpose of development (individual, social and harmonious).
- Education as an intentional (intellectual and self- critical) and unintentional.
- Agencies of education: Family, Society and Institute.
- Processes and Modes of Education: Education is a natural and social process. Education as an ability to question and imagine alternatives. Education in schools and its linkage with outside school experience.

Unit II: Knowledge and Knowing

- Concept, Meaning and Nature of Knowledge and Knowing.
- Differentiate between information, knowledge, belief and truth.
- Knowing Process: Different ways of knowing, Knowledge construction, Process of Construction of Knowledge. Relative roles of knower and known in knowledge transmission and construction, Limitations of knowing, role of culture in knowing.
- Facets of knowledge: Different facets of knowledge and relationship, such as: local and universal, concrete and abstract, theoretical and practical, contextual and textual, school and out of school with an emphasis on understanding special attributes of school knowledge.
- Reflection on knowledge in the form of curriculum, syllabus and textbooks.

Unit III: Autonomy of Teacher and Learner

- Autonomy of teacher- why, what and to what extent. Difference between autonomy and freedom. Teacher's autonomy and its importance in enriching learning environment. Relationship between autonomy and accountability. Hindering factors that affect teacher's autonomy.
- Autonomy of learner- why, what and to what extent, Restraints on learners in schools. Learning without burden, Joyful, collaborative and cooperative learning. Individual autonomy and collective responsibility of teacher and learner.

Unit IV: Education and Values

- Concept and nature of values- Relative and absolute. Education with reference to human rights and values. Values prevalent in Indian Constitution and society. Education is a normative endeavor.
- Process of value formations in schools and out of schools and its impact on learners' value perspective. Role of education in transmission of values in society. School system to nurture a culture of peace.

Modes of Learning Engagement:

- The Course is visualized to be conducted through group discussion, self-study and reflection.
- The study of themes in each unit will be done through a range of activities such as: initiation of the dialogue within the group, organizing study groups, organizing discussion in small groups, or planning for short presentations.

- The sub-themes organized as units of the course, can be discussed by student teachers (using their own experiences and common-sense understanding, to begin with).
- Teacher educators will be present and participate in the plenary discussions as ‘facilitators’.

Practicum/Tutorials:

Some activities for practicum are listed below.

- Individual self-study of a text/ article, with theme questions in mind
- Group study of a text/ article on a given theme
- Observational studies and activities: it may be worthwhile to carry out observations in the field, record what is observed and use the information while discussing with either teacher educator or peers.
- Observation with a purpose to reflect on knowledge preservation, transmission/construction and generation in oral, written, and technological traditions.
- Observation of schools, teachers, student activities in a school context.
- The student- teachers will maintain a portfolio of observations and notes on discussions; these will be submitted periodically to the faculty for appraisal and feedback.

Suggested Readings:

1. Agrawal, A. (1995). Dismantling the Divide between Indigenous and Scientific Knowledge: Development and Change. 26:413-39
2. Ant Weiler, C. (1998). Low Knowledge and Local Knowing: An Anthropological Analysis of Contested “Cultural Products” in the Context of Development. *Anthropos*. 93:46-94.
3. Chomsky, N. (1986). *Knowledge of Language*. New York. Prager.
4. Datta, D.M. (1972). *Six ways of Knowing*. Calcutta. Calcutta University Press,
5. Dewey, John (1997). *Experience and Education*, Touchstone, New York.
6. Krishna Murthy, J. (1947). *On Education*, New Delhi. Orient Longman.
7. Kumar Krishna (1996). *Learning From Conflict*, New Delhi: Orient Longman.
8. Peters, R.S. (1967). *The Concept of Education*, UK: Routledge.
9. Margaret, K.T. (1999). *The open Classroom*, New Delhi. Orient Longman.
10. Prema Clarke (2001). *Teaching & Learning: The Culture of pedagogy*, New Delhi: Sage Publication.
11. Steven H. Cahn. (1970). *The Philosophical Foundation of Education*, New York. Harper & Row Publishers.

GROUP F: SKILL ENHANCEMENT COURSES (SEC)

Semester I

WEAP 101: WORK EDUCATION (AGRICULTURE PRACTICE)-I

Time: 1.5 Hours

Max. Marks: 50

Credits- 4

Theory: 40, Internal: 10

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 8 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 8 marks each.
- iv) All questions will carry equal marks.

Objectives of the Course: On completion of the course, the student teacher will be able to-

- Identify seeds of common crops and vegetables.
- Recognise manures and fertilizers used commonly.
- Understand characteristics of seeds and seedling.
- Identify different summer and winter flowers.
- Acquire skills to horticulture practices.
- Inculcate healthy values related to work culture

Modes of Learning Engagement: Hands on experiences, Activity based learning, Experimentation, Interactive engagement, Group work, Peer learning, Project work.

COURSE CONTENTS

Unit I:

Agriculture: Meaning, definition, scope, history, branches and objectives.

Unit II:

Soil Science: Definition of pedology, soil management, soil erosion, soil conservation practices; structure of soil, soil profile; soil fertility and productivity, essential plant nutrients. Fertilizers and manures including bio-fertilizers. Identification of manures and fertilizers.

Unit III:

Irrigation: Definition, method of irrigation, systems of irrigation, drainage, irrigation pattern of India.

Horticulture: Definition, branches of horticulture, layout of orchards, propagation by seeds and by vegetative means; Pot filling technique; Planning, planting and maintaining lawn; Practice related to landscaping.

Unit IV:

Agricultural practices: Preparation of land, selection of seeds, watering, thinning, hoeing and weeding, harvesting of crop, identification of important agricultural tools, trees and crop plants. Minor project preparation on agriculture.

Suggested Readings:

1. Jitendra Singh, Basic Horticulture (Kalyani Publishers, New Delhi, 2012).
2. Dr. Jaiveer Sing, Plant Propagation & Nursery Husbandry (Rama Publishing House, Meerut, 2002).
3. Dr. Rajveer Singh & Dr. O.P. Rajput, Principles of Agronomy, Scientific Crop Production (Kushal Publications and Distributors, Varanasi, 2008).
4. Dr. K.N. Dubey, Fruit Production in India (Rama Publishing House, Meerut, 2008).

PRACTICAL

Practicum: All the following experiments are to be done. Few more experiments may be set at the institutional level.

(a) **Identification of agronomy of following crops:**

- Wheat
- Bajra
- Maize
- Rose etc.

(b) **Agricultural Processes:**

- Irrigation
- Training and Pruning
- Hoeing and Weeding
- Seed Bed preparation
- Nursery Management.

GROUP F: SKILL ENHANCEMENT COURSES (SEC)

Semester I

WEEE 101: WORK EDUCATION (ELECTRICITY & ELECTRONICS)-I

Time: 1.5 Hours

Max. Marks: 50

Credits- 4

Theory: 40, Internal: 10

NOTE FOR PAPER SETTER FOR THEORY EXAMINATION

- i) Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
- ii) Q.No. 1 will be compulsory and will carry 8 marks. There will be atleast 4 short-answer type questions selected from the entire syllabus.
- iii) Two long answer type questions will be set from each of the four units, out of which the students will be required to attempt one question from each unit. Long-answer type questions will carry 8 marks each.
- iv) All questions will carry equal marks.

Objectives of the Course: on completion of the course, the students will be able to-

- Recognize and use different tools/materials/instruments.
- Read the sketch/drawing of the job/project.
- Develop the skills for making simple projects/models.
- Acquire skill to assemble/prepare simple electric circuits.
- Acquire skill to use electronic components.
- Identify faults in electronic components.
- Develop the ability in repairing simple instruments used at secondary level.
- Inculcate healthy values related to work culture.

Modes of Learning Engagement:

Constructivist Approach: Hands on Experience, Activity used Learning, Experimentation Interactive Engagement, Group work, Peer Learning, Project Work

COURSE CONTENTS

Unit I:

Symbols, Tools and Soldering: Precautions used for making any electrical connection, Identification of conductors & insulators. Symbols for electrical components, knowledge of electrical accessories and their rating. Tools used for making any electrical connection, their sizes and use.

Hand soldering, Soldering alloy, soldering flux and de-soldering pump.
Practice of hand soldering.

Unit II:

Wires, Wirings and connections of lamps: Different types of wire, use of SWG, Different types of wiring such as: Batten wiring, CTS wiring, casing capping wiring, Cleat and conduit wiring. Their advantage and disadvantage on each other. Series and parallel connections of lamps (up to four lamps). Staircase wiring of one, two and three lamps, Go-down wiring, connection for fan.

Unit III:

Electrical Components and Appliances: Color coding in resistor and Capacitor, use of resistor and capacitor in electrical appliances,

Understanding the working of electrical appliances: Electric iron, room heater, Immersion heater, geyser, Electric bell, emergency light

Unit IV:

Electronic Components and Their Use: Semiconductor materials, Semiconductor diode, Diode testing, Zener diode, LED, Photo diode, Solar cell, Rectification by diodes, Voltage multiplication by diodes.

Suggested Readings:

1. Electrician - I Year- Trade Theory Published by National Instructional Media Institute, Chennai re-print 2007
2. Electrician - II Year- Trade Theory Published by national Instructional Media Institute Chennai re-print 2007
3. Electrical Machinery Published by Krishna Publisher Delhi Author P.S. Bhimbhara re-print 2007
4. N.N. Bhargava, D.C Kulshrestha and S.C Gupta, Basic Electronics and Liner Circuits. Tata Mc. Graw Hills Ltd. New Delhi(2000)
5. B.L. Theraja, Basic Electronics, S.Chand New Delhi, (2005)

Practical

All the following experiments are to be done. Few more experiments may be set at the institutional level.

Preparation of Projects/Models based on the following **(Only Suggestive)**-

1. Clap switch
2. IR Remote switch (fan, tube light)
3. Remote operated musical bell
4. Alarm for luggage security
5. Mobile cell-phone charger using cell
6. Power supply failure alarm
7. Blown fuse indicator
8. Rectifier
9. Voltage Multiplier
10. Transistor Amplifier