

INTRODUCTION

1.1 Goa Vidyaprasarak Mandal

Goa Vidyaprasarak Mandal, popularly known as GVM was founded by visionaries like Dr. Dada Vaidya, Shri Sitaram Kerkar and Shri Vinayak Sarjyotishi on October 2, 1911 (Vijay Dashami day). The intention of the founders was not merely to impart formal education for white collared jobs but to provide for the future generation, Goans who would be proud of our rich and varied cultural heritage and who would, with confidence, shoulder responsibilities in the task of nation-building.

The first institution to be established was the A. J. de Almeida High School at Ponda. Subsequently in 1960, four more high schools were established, R.P.R.S High School at Bandora, K.R.S.S. High School at Savoi Verem, Pragati Vidyalaya at Borim and M.I.B.K. High School at Khandepar. The S.N.J.A. Higher Secondary School and K.G. and Primary School were started in 1975. GVM's Adarsh Higher Secondary School, Ponda was established in 2015. GVM's Utkarsh Vidyalaya, Ponda was established in 2017. GVM set up two colleges, GGPR College of Commerce & Economics and Dr. Dada Vaidya College of Education both at Ponda. In all GVM has over 9000 students and 450 teaching and non teaching staff on its rolls.

1.2 G.V.M's Dr. Dada Vaidya College of Education

The College of Education was established in 1993 in response to the growing demand for teacher education. The college is affiliated to Goa University and recognised by NCTE. Recently it has been accredited by NAAC with a B+ grade.

Vision

Goa Vidyaprasark Mandal's Dr. Dada Vaidya College of Education is committed to the professional development of teachers, both pre-service and in-service, for reflective, constructive and value-based teaching-learning employing both insight and technology within the ambit of the native socio-cultural perspective.

Mission

The mission of the College is to achieve excellence in the professional development of teachers through

1. Developing committed, technology savvy, value-based and research oriented teaching professionals
2. Initiating them to lifelong learning and to innovative, interactive, activity-oriented and child-centred classroom teaching
3. Training them to create an environment in educational and social milieus that would promote communication, cultural diversity and national integration
4. Orienting them to the service of the community for its educational and socio-cultural resurgence.

The College believes in TO TEACH and TOUCH LIVES.....

1.3 Programmes offered

1. M. Ed.

This is a Two-year (4 Semesters) programme affiliated to the Goa University and recognized by the National Council for Teacher Education with an intake of 50 students.

2. B. Ed.

This programme is based on the curriculum prescribed by the Goa University to which this college is affiliated with an intake of 100 students (2 units of 50 students).

3. M. A. Education

This is a Two year programme run by the Indira Gandhi National Open University (IGNOU) through distance mode. Admissions are done by IGNOU through its Regional Centre at Panaji. The **Study Centre 0806P** attached to the College comes under the Panaji Region.

4. Diploma in Pre-Primary Teacher Training

The College conducts a One year Diploma programme in Pre-primary teacher training affiliated to the Goa University. The programme deals with the theoretical and practical aspects of teaching children in the age group of 3-6 years.

5. Ph. D. (Education)

The Research Centre of the College has been recognized and affiliated to the Goa University and provides an opportunity for those desirous of doing a Ph.D in Education both in regular and part time mode. Admissions are done by the Goa University.

1.4 Department of Extension Services

GVM's Dr. Dada Vaidya College of Education established the Department of Extension Services in 1995, the second dimension of the College for the in-service training of teachers. The department is equipped with a wide range of library books and seminar halls with good sitting and presentation modes. The department collaborates with SCERT, Directorate of Education, DIET, Super School Complex, teacher organizations, and National level organizations such as NCERT, IGNOU and NCTE for conducting various training programmes

1.5 The Resources

- We have a committed group of teachers and non-teaching staff. The faculty members are well qualified with 80% of them having qualified in NET/SET, three have acquired Ph.D and three have M.Phil degrees. The academic and administrative talents of the staff are well recognized by the fact that they are associated with various State (SCERT, DIET, Goa University, Directorate of Education, Goa Board) and National level organizations (NCERT, NCTE, NAAC, NLI) as resource persons, committee members etc.

- Well equipped library with an excellent collection of reference books, encyclopedias, dictionaries, journals and CD ROMs
- Well equipped computer center with LAN networked computers, printers, digital camera, handy cam, scanner and unlimited broadband internet access for every learner
- Office automation using computers, fax, scanners and printers
- Classrooms are equipped with Laptops, LCD projectors, Intelligent Interactive Panels etc.
- On-line Library resources
- Language Laboratory

The institution is constantly introducing innovations in the field of teacher education for genuine learning. The Institution is known for its warm interpersonal relations and technology integration. The results of the institution have been consistently high with many students scoring distinctions.

EDU 01: FOUNDATIONS OF EDUCATION

Objectives:

By the end of the course the student-teacher will be able to:

- understand how education derives its relevance from social, cultural, economic and political contexts.
- identify the contribution to education of western and eastern thinkers.
- Understand the Contributions of Mahatma Gandhi to Education- Nai Talim
- understand the relationship between education and development : at individual and national levels.
- examine the changing emphases on Education in the context of Globalisation, Liberalisation and Privatisation.
- develop an insight into educational funding.
- understand the importance of universalisation of secondary education and the constitutional provisions for realizing it.
- identify the various causes for inequality in schooling.
- realize the importance of Right to Education and the provisions made for realizing it.
- develop the skills required to contribute towards a Knowledge Society.
- understand the importance of educational planning and administration.
- understand the need and importance of education for peace and the national and international efforts towards it.
- explore the strategies for sensitising the learners towards environmental conservation.

Unit-1: The Social, Cultural and Political Contexts of Education (16%)

- 1.1 Sources of the Aims of Education: - social, cultural, economic and political contexts and their impact on education.
- 1.2 Education as an instrument of Social Change.
- 1.3 Socialisation - influence of society, family, peer groups, media and new age technologies on education.
- 1.4 Emerging trends in societies and their repercussions on education: liberalisation, privatisation, globalisation and internationalisation of education.
- 1.5 The Right to Education Act of 2009.
- 1.6 Educational Provisions in the Constitution of India

Unit-2: Contributions of Great Educators (16%)

The contributions to education of:

- 2.1 Jean Jacques Rousseau,
- 2.2 John Dewey,
- 2.3 Rabindranath Tagore,
- 2.4 Swami Vivekananda,
- 2.5 Jiddu Krishnamurthy
- 2.6 Paulo Freire

Unit 3: Contributions of Mahatma Gandhi to Education (10%)

- 3.1 Gandhian philosophy on Education
- 3.2 Nai Talim -as engaged learning and its relevance, Community engagement Methodology.
- 3.3 Nai Talim- Traditional, Intellectual and Constructivist approaches- Models to Education and learning
- 3.4 Nai Talim-Education for life and through life and its reflection in curriculum and Pedagogical practices

Unit 4: Education and Development (14%)

- 4.1 The Evolving Concept of Development.
- 4.2 The Right of the Child Act of 2005
- 4.3 Equity and Equality in Education – meaning, nature and forms of inequality (i) dominant and minor groups (ii) gender (iii) public and private schools (iv) rural and urban schools.
- 4.4 The Elusive Triangle of Indian Education: Equality, Quantity and Quality.
- 4.5 The Financing of Education
- 4.6 Educational Planning and Administration.

Unit-5: Education in a 'knowledge society' (14%)

- 5.1 Nature of knowledge in education: concepts, statements, educational viewpoints, metaphors and theories.
- 5.2 Emerging knowledge base in education for a 'Knowledge Society'.
- 5.3 Promoting an interdisciplinary approach to education.
- 5.4 Shift in learning environments: Unimodal to multi-mediated, school based to community linked, and real to virtual learning environments.
- 5.5 The open-distance learning environment.
- 5.6 The teacher as a knowledge worker.

Unit 6: Contemporary Concerns and Issues in Secondary Education (14%)

- 6.1 Universalisation of Secondary Education (USE): issues and concerns
- 6.2 The Salient Features of UNESCO's Education Commission Report: Education in the 21st Century (Jacques Delors)
- 6.3 Population Education
- 6.4 Education of the marginalised.
- 6.5 The importance of promoting "secularism" in education.
- 6.6 Pluralism in Education.

Unit 7: The Education System in Indian Society (16%)

- 7.1 Role of Government of India in Education
- 7.2 The policies framed by the Central Advisory Board of Education (CABE)
- 7.3 The perspective of education for national development in: the Education Commission (1964-66),
- 7.4 The NPE 1986, The Ramamurthi Education Commission 1990 and the modified NPE 1992 with its (POA)
- 7.5 Updating the National Curriculum Framework (NCF) by NCERT.
- 7.6 The Teacher's Commitment to (i) the learner, (ii) the society, (iii) the profession and (iv) the basic values.

References:

1. Delors J., (1996). "Learning the treasure within": UNESCO's Education Commission Report for the 21st century.
2. Khanna S. D. (1994) Kothari Commission Report 1964-66, Bhuba House Publication.
3. Govt. of India (1986). National Policy on Education, Min. of HRD, New Delhi.
4. Hassan Taj (2005) Current Challenges in Education, Neelkamal
5. Salamatullah, (1979). Education in Social context, NCERT, New Delhi.
6. Narayan P. S. (2012-13) The Right of Children to Free and compulsory Education Act 2009, Gogic Law Publication.
7. Sharma, Ram Nath. (2000) Textbook of Educational Philosophy. New Delhi: Kanishka Publishers Distributors.
8. Hallinan, Maureen T. (Ed.) (2000) Handbook of the Sociology of Education, Springer e-books, springer Book Archives.
9. Chaube and Chaube (1994) Foundations of Education, Vikas Publishing House Pvt. Ltd.
10. Krishnamurthi J. (1974) Krishnamurthi on Education, Krishnamurthi Foundation India
11. Govt. of India (1992). NPE with its Programme of Action, Min. of HRD.
12. Naik J. P. and Nurullah Syed (1974, 6 ed.) A Students' History of Education in India, Macmillan
13. Freire Paulo (1973) NY: Education for Critical Consciousness – A Continuum Book
14. Freire Paulo (1985) The Politics of Education: Culture, Power and Liberation: Houndmill, Basingstoke, London Macmillan Publishers.
15. UNESCO. (2004) *Education for All: The Quality Imperative. EFA Global Monitoring Report*. Paris.
16. Jandhyala Bala Gangadhar Tilak (2003) Financing Education in India: Current Issues and Changing Perspectives, Ravi Books for NUEPA.
17. Butchvarov, P. (1970), *The Concept of Knowledge*, Evanston, Illinois: North Western University Press.
18. Datta, D.M. (1972). *Six ways of Knowing*. Calcutta University Press, Calcutta.
19. Margaret, K.T. *The open Classroom*, Orient Longman: New Delhi, 1999.
20. Hirst. Paul, (1975) Knowledge and the Curriculum, Routledge & K Paul
21. Prema Clarke (2001). *Teaching & Learning: The Culture of pedagogy*, Sage Publication, New Delhi.
22. Ziyauddin and Kasi (2009) Dimensions of Social Exclusion: Ethnographic Explorations (of the marginalised). Cambridge Scholars Publishing
23. Anand, C.L. et.al. (1983). Teacher and Education in Emerging Indian Society, NCERT, New Delhi.
24. NCERT (1993). Teacher and Education in Emerging Indian Society, New Delhi

25. Mittal M. L. (2009) Education in the Emerging Indian Society, International Publishing House.
26. Dash B. N. (2004) Theories of Education & Education in the Emerging Indian Society, Dominant Publishers and Distributors, New Delhi
27. NCERT (1986). School Education in India – Present Status and Future Needs, New Delhi.
28. Moonis Raza (1985) EDUCATIONAL PLANNING: A LONG-TERM PERSPECTIVE Concept, New Delhi, NUEPA
29. UNESCO. (2004) *Education for All: The Quality Imperative. EFA Global Monitoring Report*. Paris.
30. Lunenburg F. and Ornstein A. C. (2011) Educational Administration: Concepts and Practices, Wadsworth Pub.; 6th edition

EDU 02: LEARNER AND LEARNING

Objectives:

After going through the course the teacher trainee will:

1. Understand the growth and development of the learner through the different stages of Childhood and Adolescence and its importance in the learning process.
2. Develop an understanding of areas of Individual Differences among learners.
3. Develop an understanding of exceptional learners and with Differently abled learners.
4. Develop an understanding of skills for handling Exceptional learners and Differently abled learners.
5. Understand the concept of adjustment, maladjustment and the causes of maladjustment.
6. Develop understanding about factors affecting learning
7. Understand the concept of learning process
8. Understand and apply the different learning theories in the classroom.
9. Understand the role of Guidance and Counseling.
10. Develop the skill in the use of psychological tests and performing experiments

Unit 1: Learner as a Developing Individual (Childhood and Adolescence) (15%)

- 1.1 Concept of growth and development: principles, role of heredity and environment
- 1.2 Developmental characteristics of the learner, developmental tasks and their implications (physical, cognitive, social, emotional and moral aspects).
- 1.3 Contemporary concerns: physical appearance, sexuality, drug abuse, ragging, peer influence, suicide, negative impact of media)
- 1.4 Role of teachers and parents in handling adolescents.

Unit 2: Understanding Learner Diversity (20%)

- 2.1 Individual Differences: Meaning and Types.
- 2.2 Areas of Learner differences with regard to: learning styles, attitude, aptitude, personality, interest, values, intelligence and creativity.
- 2.3 Understanding Differences: Meaning, identification and educational provisions for
 - Exceptional Learner (gifted, slow learners)
 - Differently-abled Learner.
- 2.4 Educational Implications of the following:
 - Jean Piaget: Cognitive Development
 - Daniel Goleman: Emotional Intelligence
 - Howard Gardner: Multiple Intelligences
 - Lawrence Kohlberg: Moral Development

Unit 3: Learning (20%)

- 3.1 Concept and nature of the Learning Process
- 3.2 Relevance of Learning Theories and Classroom implications:
 - Trial & Error learning and laws of learning
 - Classical conditioning
 - Operant conditioning
 - Gestalt
 - Gagne's hierarchy of learning.
 - Social Learning theory
- 3.3 Constructivist Approach to Learning

Unit 4: Factors Influencing Learning and Classroom implications (20%)

- 4.1 Perception (Sensation, Processes- *selection, organization, interpretation*) and Attention
- 4.2 Motivation (Concept, Types: intrinsic & extrinsic motivation, strategies to motivate students)
- 4.3 Transfer of Learning
- 4.4 Problem Solving
- 4.5 Thinking: Critical and Creative

Unit 5: Learning through Information Processing (15%)

- 5.1 Structure of Information Processing- (Sensory Register, Short Term Memory, Long Term Memory)
- 5.2 Memory Process - registration, retention, recall and recognition
- 5.3 Forgetting- causes
- 5.4 Classroom implications: ways of enhancing memory

Unit 6: Development of an Integrated Personality (10%)

- 6.1 Adjustment vs. Maladjustment: Meaning and Characteristics
- 6.2 Adjustment Strategies.
- 6.3 Characteristics of an Integrated Person.
- 6.4 Role of Guidance and Counseling in the development of an integrated personality
- 6.5 Role of Teachers and Parents in the area of Guidance and Counseling Services

References:

- Ashcraft, M.H. (1994). *Human memory and cognition* (2nd Ed.). NY: Harper Collins.
- Biehler and Snowman (7th ed) (1993) *Psychology Applied to Teaching*. Boston: Houghton Mifflin Company
- Benjafield, J.G. (1992). *Cognition*, Prentice Hall, Englewood Cliffs.
- Brown, J. S., Collins A and Dugrid, P (1989). *Situated Cognition and the Culture of Learning*, Educational Research; 32-42.
- Brown, H. Douglas (1987). *Principles of Language Teaching and Learning* (2nd Ed.). Englewood Cliffs, NY: Prentice-Hall

- Denise Pope (2001), *Doing School: How we are creating a Generation of Stresses Out, Materialistic and Miseducated Students*. New Haven: Yale University Press.
- Gardner Howard (1985). *Frames of Mind. The theory of Multiple Intelligences*, Basic Books, New York.
- Goleman, D (1999) *Working with Emotional Intelligence*, London: Bloomsbury
- Hurlock, E. B. *Child Development*, New Delhi: Tata McGraw Hill
- Omrod, Jeanne Ellis et al (2010). *Principles of Educational Psychology*, Toronto, Pearson.
- Omrod, Jeanne Ellis et al. *Educational Psychology: Developing Learners*. 4th Edition.
- Jeffery Arnett (2007). *Adolescence and Emerging Adulthood: A Cultural Approach*. (3rd Ed.) Upper Saddle River, N.J. Pearson.
- Patricia A. Alexander, Philip H. Winnie (2006) *Handbook of Educational Psychology*
- Plotnik, R. (1999). *Introduction to Psychology*, New York, Brooks/cole
- Sarangapani M. Padma (2003), *Constructing School Knowledge: An Ethnography of Learning in an Indian Village*, Sage Publication.
- Strut Mary, Oakden, E. C. (1999) *Modern Psychology and Education*, Routledge.
- Woolfolk, A.E. (2009) *Educational Psychology* (11th Edition) (My Education Lab Series) Prentice Hall
- Mangal, S.K (1997) *Advanced Educational Psychology*. New Delhi: Prentice Hall of India
- Krick, S.A (1962) *Educating Exceptional Children*. Oxford and ISH Publishing, New York.
- Kochar, S.K (1993) *Educational and Vocational Guidance in Secondary Schools*. New York : Sterling Publishers
- Ewen, R.B (1984) *Psychology of Adolescence*. New York : Prentice Hall Inc.
- Skinner, C.E. (Ed) (1995) *Psychology of Adolescence*. New Delhi: Prentice Hall of India

EDU 03: LEARNING RESOURCES

Objectives:

The student develops an understanding about

1. the significance of communication in the teaching-learning encounter
2. facilitative and inhibitive factors and ways to enhance/overcome them
3. the role of audio, visual and audio-visual learning media
4. self-learning and methods to employ
5. the role of a teacher in designing learning materials based on curricular objectives
6. ICT as an integral part of modern day facilitative learning
7. new technologies which accelerate learning knowing that the modern learner is a 'digital citizen'
8. managing the learning resources in a school to maintain and sustain learning
9. the significance of hands-on learning to foster learning

Unit 1. Educational Communication (20%)

1.1 Concept of Communication

- Meaning
- Components
- Communication cycle
- Types (verbal and non-verbal: meaning, characteristics, merits and limitations)
- Modes (speaking, writing, visualizing)

1.2 Significance of communication in teaching-learning

- Reflective communication (both the teacher and student)
- Interpersonal communication

1.3 Classroom communication – an analysis of its facilitative and Inhibitive nature

- Strategies to enhance communication
- Strategies to overcome inhibitive factors

1.4 Abstractness or concreteness provided by different learning experiences

- Meaning of learning experiences
- Dales cone of experiences
- Using Multiple Intelligences to plan effective communication materials

Unit 2 Multisensory Learning Media for Classroom Teaching (20%)

(Meaning, characteristics, selection, guidelines for use, merits and limitations of the following learning media)

2.1 Classification of learning media as audio, visual and audio-visual media

2.2 Audio media

- Disc based audio,
- educational radio,
- audio conference,
- podcasts, and;
- streaming audio

2.3 Visual Media

- 2.3.1 Print media (illustrated books, magazines, newspapers, periodicals, comic strips, cartoons and encyclopedia)
- 2.3.2 Projected media (digital visualizer, films)
- 2.3.3 Non-projected media (graph, map, chart, poster, images, diagrams, models and material)
- 2.3.4 Three dimensional media (realia, 3D models, specimens, puppets)

2.4 Audio-visual Media

- streaming video,
- Television/Educational Television,
- COMPUTER

Unit 3 Resources for promoting Self-learning and Learning to Learn Skills (10%)

- 3.1 Concept of learning to learn skills: self-learning
- 3.2 Principles of self – learning
- 3.3 Methods to promote self-learning (Computer Aided Instruction using ready-to-use learning packages, personalized system of instruction, learning centers, mini courses, modular instruction)
- 3.4 Merits and limitations of self-learning

Unit 4 Designing Self-learning materials (the ADDIE model to be applied in the design process) (10%)

- 4.1 Concept, characteristics and importance of designing self-learning materials
- 4.2 Steps in designing worksheets
- 4.3 Steps in designing 3D objects/models
- 4.4 Steps in designing a self-learning material (create a video material using FOSS)
- 4.5 Role of the teacher in designing self-learning materials
- 4.6 Designing a checklist to measure the effectiveness of the created self-learning material

Unit 5 Technology Enhanced Learning (20%)

- 5.1 Educational media and technology standards: SITE, ISTE, AECT
- 5.2 E-learning: Concept, Approaches (Enhanced Approach also known as face-to-face F2F, Blended Approach and Online Approach), merits, limitations
- 5.3 ICT and Multimedia as technology enhanced communication devices in teaching-learning
- 5.4 Impact of ICT on learning and achievement- national and local scenario
- 5.5 Computer as a learning resource for presentation, documentation, word processing, evaluation
- 5.6 Internet as an Information Resource: Characteristics, merits and limitations
- 5.7 Concept, characteristics and guidelines to use offline and online resources in teaching
- 5.8 Types of digital resources (simulations, educational games, tutorials, drill and practice, encyclopedia). Their characteristics, guidelines for use, merits and limitations
- 5.9 An introduction to Free and Open Source Software (FOSS)
- 5.10 Types of FOSS that can be applied to education (audio, visual, audio-visual)

Unit 6 Emerging Technologies to facilitate learning (20%)

- 6.1 Meaning, characteristics, merits and limitations of the following technologies. A practical demonstration on using cellular phones, audio/video streaming/social media/cloud storage in teaching must be compulsorily undertaken.
- Interactive/Smart boards
 - Cellular phones
 - Collaborative learning through wikis, LMS (Moodle)
 - Language lab
 - Social media
 - Cloud storage
 - Virtual tours/field trips
 - Videoconferencing (VC)
 - Webconferencing (WC)
- 6.2 Role of the teacher in an ICT enabled environment
- 6.3 Managing School Learning Resources
- Learning resources in a school: laboratories, IT laboratory, library (need, characteristics)
 - Managing the use of these resources: Role of the teacher

References:

- Aggarwal, J.C (2009) Essentials of educational Technology. Noida, Vikas Publishing House Pvt Ltd
- Bhatnagar, R.P and Bhatnagar, Meenakshi (2007) Educational Technology and Management. Meerut, Loyal Book Depot
- Brown, Lewis and Harclerod, (1977) A.V. Instruction Technology, Media & Methods. New York, McGraw Hill Book Company
- Bhushan, Anand and Ahuja, Malvinder (2007) Educational Technology. Patiala, Bawa Publications
- Imison, T., Taylor, P.H. (2001). Managing ICT in the Secondary Schools. Heinemann: Oxford
- Haas, Kenneth B and Packer, Harry Q (1960). Preparation and use of audio visual aids. Englewood, Prentice hall
- Jones, F & Jones. B. (2000). Tools for teaching. Fredric Jones and Associates
- Kemp, Jerrold E. and Smellie, Don C. Planning Producing & using Instructional Media
- Kemp, Jerrold E. and Dayton, Deane K. Planning & producing Instructional Media
- Kerry, Trevor (1982) Effective Questioning. London, Macmillan Educational Limited
- Mohanty, Jagannath (2007) Modern trends in educational Technology. New Delhi, Neelkamal Publications Pvt Ltd
- Presnky, M. (2010). Teaching digital natives: Partnering for real learning. 16th Ed. Corwin Publishers
- Richardson, W. (2006), Blogs, wikis, podcasts and other powerful web tools for classroom. 6th Edition. Corwin Publishers

- Roisin D & Fiona McSweeney (2008). Applied e-Learning and e-Teaching in Higher Education
- Sanders Donald, H. (1998). Computers Today. McGraw Hill Book Company: New Delhi
- Semenov, Alexy (2005). Information and Communication Technologies in Schools. A handbook for Teachers. UNESCO
- Sharma, R.A (2005) Essentials of Instructional Technology. Meerut. R. Lall Book Depot
- Sampath, K., Pannirselvam, A. and Santhanam, S (1990) Introduction to Educational Technology. New Delhi, Sterling Publishers Private limited
- Vanaja M and Varnasi, Lalini (2007) Educational Technology. New Delhi, Neelkamal Publications Pvt Ltd
- Wittich, Walter Arno and Schuller, Charles Francis (1953) Audio Visual Materials: Their Nature and Use. New York, Harper and Brothers Publishers

EDU 04: TEACHING: APPROACHES AND STRATEGIES

On completion of the course the student teacher will be able to

- Demonstrate his/her understanding of the changing concept of teaching
- Understand the relationship between teaching and learning
- Use instructional skills/strategies effectively.
- Use reflective practices in improving teaching and learning

Unit 1 Understanding Teaching (20%)

- Changing concept of teaching, teaching different from training and indoctrination, teaching as a planned activity.
- Teachers 'assumptions on teaching and its impact on planning and teaching.
- Impact of one's own socialization process on 'becoming a teacher and its limitation(impact of their early experiences as student , as student teacher)
- Proficiency in teaching: Skills, Competencies and Commitment.

Unit 2. Instructional approaches and strategies (20%)

- Teacher Controlled Instruction-Lecture method, Demonstration, Team teaching and Activity based instruction.
- Learner Controlled Instruction-Self learning, Forms of self learning-Programmed Instruction, Computer Assisted Instruction, and Project based learning.
- Small group and Whole group Instruction: Cooperative learning , Brain storming, Role play, Dramatization, Group discussion, Simulation, Debate, Quiz and seminar

Unit 3. Developing self study strategies in students (30%)

- Importance of developing study strategies in students
- Types of learning strategies
- Rehearsal strategy: underlining , marginal notes
- Elaboration strategies: Note taking, Use of analogies, PQ4R method.
- Organization strategies: Outlining, Mapping Mnemonics, Chunking, Acronyms, Link words.
- Meta-cognitive strategies: Direct Instruction and reciprocal teaching

Unit 4. Reflective Practice in Teaching (30%)

- Meaning of Reflective teaching.
- Characteristics of a reflective teacher
- Process of Reflection- Journal/ Diary writing, Self evaluation/reflection, Learner achievement as a feedback for evaluating teacher effectiveness.
- Developing a personal philosophy of teaching
- Limitations of reflective practices.

References:

1. Arends, Richard, I (1998) learning to Teach (4th Ed), New Delhi, Mc Graw Hill.
2. Malderez Angi and Wedell Martin (2007) Teaching Teachers, London, Continuum.
3. Martinez-Pons, Manuel(2001) The Psychology of teaching and Learning, London, Continuum.
4. Norton, Lin S.(2009) Action Research in Teaching and Learning, London, Routledge.
5. Overall Lyn and Sangster Margaret (2003) Secondary Teachers' Handbook (2nd Ed) London, Continuum.
6. Pollard Andrew (2006) Reflective teaching, 2nd Edition , London, Continuum.
7. Reynolds David (2011) Effective Teaching (3rd Ed), London, Sage.
8. Rowntree Derek (1986) teaching through Self Instruction, London, Kogan Page.

EDU 05: SCHOOL AND CLASSROOM MANAGEMENT

Course Objectives

- To enable students to understand the use of management principles for improving quality of education at secondary level
- Understand the managerial practices in school- human and physical resources management.
- Understand importance of classroom management
- Describe approaches to classroom management
- Understand ways of preventing problems in managing a classroom
- Explain the role of teachers and the principal in ensuring a vibrant school and classroom climate

Unit 1 School management (30%)

- 1.1 Concept of quality management and excellence in education
- 1.2 Managing Human resources
- 1.3 Concept and training of human resource development,
- 1.4 Concept of leadership, Styles of leadership
- 1.5 Functions and qualities of a) teacher b) Headmaster
- 1.6 Managing Physical resources
 - Physical resources in a school - physical space (building) with adequate classroom space, adequate furniture, learning resources such as the labs, library, sports field, and staffrooms, rest rooms, etc.
- 1.7 Management of physical resources - Cleanliness, appropriate use of each with an intent or schedule
 - Streamlining ways of using the facilities: coordination, sharing School records, Kinds of school records, School Calendar, Log book, Cash book, cumulative record,
- 1.8 Minimum requirements of physical and human resources in secondary schools as per Goa Education Act, RTE and other rules applicable for secondary school teachers in Goa.

Unit 2 School and Classroom Environment (30%)

- 2.1 School as an institution with an environment of its own
- 2.2 Leadership style of the headmaster and its influence on teacher role performance
- 2.3 Factors affecting school environment - goodwill, acceptance, belongingness, openness, orderliness, and access, both among teachers and between teachers and students
- 2.4 Promoting self-esteem among students
- 2.5 Team work and transparency in functioning among teachers
- 2.6 Classroom climate – concept and components.
- 2.7 Factors affecting classroom climate
- 2.8 Classroom climate and pupil achievement.

Unit 3 – CLASSROOM MANAGEMENT (20%)

- 3.1 Preparing for effective Classroom management
- 3.2 Elements of effective classroom management

3.3.Preventive Classroom management- Establishing Rules and Procedures, Teaching Rules and Procedures, Dealing with external disruptions, maintaining momentum during the lesson.

3.4 Techniques of preventive Classroom management

Unit 4-Managing Inappropriate Behaviour (20%)

4.1 Causes of pupil Misbehavior

4.2 Dealing with inappropriate behavior

4.3 Assertive Discipline

4.4 Working towards Self-management

References

- 1) Arends, Richard. (1998) learning to Teach (4th Ed), New Delhi, Mc Graw Hill.
- 2) Alka, Kalra (1977) Efficient School Management and Role of Principals, APH Publishing Corporation, New Delhi.
- 3) Agarwal . J C, School Organisation , Administration and Management, Doba House , Delhi.
- 4) Biehler and Snowman. (7th ed) (1993) *Psychology Applied to Teaching*.Boston:Houghton Mifflin Company
- 5) Buch, T (et al) (1980) Approaches to School Management, Harper & Row Publishers,London.
- 6) Campbell, R F., Corbally, J E and Nystrand, R O (1983) Introduction to Educational Administration, (6th ed), Allyn and Bacon, Inc., Boston Blumberg, A & Greenfield, w (1986) The effective principal, Allyn & Bacon, London.
- 7) Daniel Muijs and David Reynolds(2007) Effective Teaching , 3rd Edition,Sage Publication Ltd, London
- 8) Gupta, S K and Gupta S (1991) Educational Administration and Management, Manorama Prakashan, Indore.
- 9) Good L. Thomas and Brophy E.Jerry(1987)Looking in Classrooms, Harper and Row publishers,New York.
- 10) Khan, M S (1990) Educational Administration, Asia, Publishing House, New Delhi.
- 11) Naik, J P (1970) Institutional Planning, Asia Institute for Educational Planning and Administration, New Delhi.
- 12) Rai B.C , School Organisation and Management , Prakashan Kendra, Luknow
- 13) Sushi, T et al (1980) Approaches to school management, London : Harper & Row
- 14) Vashist, Savita (Ed)(1998) Encyclopedia of School Education and Management, New Delhi, Kamal Publishing House.
- 15) Wootan.C.Frederic(2010) No fear in my classroom, Aadam's media, Avon, Massachusetts.

EDU 06: COMMUNICATION SKILLS

ORAL SKILLS

1. Introduction to the Sounds of English- Vowels, Diphthongs and Consonants – Pronunciation, Articulation, Intonation, Diction and Stress
2. Situational Dialogues / Role Play.
3. Telephoning and e-mailing Skills.
4. Oral Presentations - Prepared and Extempore.
5. Debating

WRITING SKILLS

1. Listening and Reading Comprehension of Unseen texts.
2. Communicative Writing Skills: Informal and Formal Letters and CV/Resume Writing
3. Academic Writing Skills: Note Taking, Summarising, Article Writing
4. Report Writing, Writing references (APA style)
5. Book Reviews

References:

1. Tickoo M. L. , Teaching and Learning English, Orient Black Swan, 2009
2. White G., Listening, OUP, 1998
3. Underwood M., Teaching Listening, Longman, 1989
4. Bygate M., Speaking, OUP, 1987
5. O'Connor J. D., Better English Pronunciation, CUP 2nd Ed, 1980
6. Andersen, Peter. (2007). *Nonverbal Communication: Forms and Functions* (2nd ed.) Waveland Press.
7. Argyle, Michael. (1988). *Bodily Communication (2nd ed.)* Madison: International Universities Press.
8. Matt Purland, Talk a Lot: Spoken English Course , My Ebook Publishing House, 2012
9. McIntosh Collin et al, Oxford Collocations Dictionary for students of English, 2nd Ed. OUP, 2009.
10. Quirk R., Language Activator, English Production Dictionary, 1993.

EDU 07-08: METHODOLOGY OF TEACHING ENGLISH.

OBJECTIVES

By the end of the course the student-teacher will:

- Communicate effectively in other subject matter areas in general, and English Language and Literature in particular.
- Equip themselves with the requisite linguistic skills for teaching the adolescent child in the secondary school context.
- Develop thinking skills (analytical, synthetic, critical, creative).
- develop intercultural understanding and appreciation.
- promoting positive attitudes toward the target language and culture.
- Plan and implement communicative activities for skill integration in ELT.
- Use Computer Assisted Language Learning (CALL) and the Language Laboratory.
- Check on the efficacy of Audio-Visual Devices along with authentic learning materials for the language classroom.
- Be able to conduct a Project on Spoken English
- Learn the stages of test construction and administration
- Plan and implement project work and write a project report.
- Construct and administer a Unit Test
- Acquaint oneself with the skills of preparing rubrics and using portfolio assessment
- Cope with the challenges of continuous comprehensive evaluation
- Conduct intervention programmes for remediation and enrichment
- Consider strategies for their continuing professional growth
- Acquaint themselves with the rudiments of modern English Grammar.
- Acquire a functional knowledge and use of the English language for communicative and academic purposes.
- Speak and write grammatically correct English.
- Learn proper pronunciation skills with the IEPA (International English Phonetic Alphabet)

Unit 1: Planning in English Language Teaching (ELT) (15%)

Unit 1.1 Planning for the Integration of Language Skills

1.1.1 Objectives for the Language Teaching-Learning Process

1.1.2 Using Hierarchic and Non-hierarchic Objectives

Unit 1.2 The Annual Plan and The Unit Plan for ELT

1.2.1 Developing the Annual Plan

1.2.2 Developing the Unit Plan

Unit 1.3 Lesson Planning for Activity Based Learning (ABL)

1.3.1 Stages of a Lesson

1.3.2 Activities for achieving the objectives of a lesson plan

Unit 1.4 Resources in ELT

- 1.4.1 Effective use of Audio-Visual Devices (AVDs)
- 1.4.2 Computer Assisted Language Learning (CALL)

Unit 2: Evaluation in ELT (15%)**Unit 2.1 Testing Procedures**

- 2.1.1 Teacher made criteria and instructions for testing
- 2.1.2 Test Administration

Unit 2.2 The Unit Test

- 2.2.1 The Blue Print and the Test Paper
- 2.2.2 The Answer Key, Marking Scheme and Grade Sheet

Unit 2.3 Continuous Comprehensive Evaluation and Alternative Assessment

- 2.3.1 Using tools such as Rubrics and Portfolios
- 2.3.2 Alternative Assessment – Assignments and Projects

Unit 2.4 ELT for Remediation and Enrichment

- 2.4.1 Graded Activities for the Remediation of Slow Language Learners
- 2.4.2 Creative Activities for the Enrichment of Gifted Language Learners

Unit3: Teaching the Receptive Skills (20%)**Unit 3.1 Teaching Listening**

- 3.1.1 What is listening?
- 3.1.2 Techniques and activities for teaching listening.

Unit 3.2 Teaching Reading

- 3.2.1 What is reading?
- 3.2.2 Techniques and activities for teaching reading.

Unit 3.3 Teaching Literature

- 3.3.1 Teaching prose and poetry
- 3.3.2 Teaching drama, the novel and the short story

Unit 3.4 Teaching Reference Skills

- 3.4.1 Differentiating between receptive and productive dictionaries
- 3.4.2 Models of Teaching: Concept Attainment and Advance Organiser

Unit 4: Teaching the Productive Skills (20%)**Unit 4.1 Teaching Speaking**

- 1.1.1 Concepts of Pronunciation, Articulation, Intonation, and Diction.
- 1.1.2 Techniques for teaching speaking.

Unit 4.2 Teaching Writing

- 1.2.1 Techniques to teach types of writing activities.
- 1.2.2 Models of Teaching: Inquiry Training and Synectics.

Unit 4.3 Teaching Grammar for Language Use

- 1.3.1 Prescriptive, Descriptive and Pedagogic Grammars
- 1.3.2 Teaching grammar using communicative methodology.

Unit 4.4 Non Verbal Communication

- 4.4.1 Types of non-verbal communication.
- 4.4.2 Effective use of body language.

Unit 5: The English Language Teacher (15%)**Unit 5.1 Language Statutes of English in India**

- 5.1.1 English as a first, second and third language.
- 5.1.2 English as a link national and international language.

Unit 5.2 Syllabuses, Approaches, Methods and Techniques in English Language Teaching (ELT)

- 5.2.1 The Structural Syllabus
- 5.2.2 The Communicative Syllabus
- 5.2.3 The Humanistic Syllabus
- 5.2.4 The Learnercentred Syllabus

Unit 5.3 Thinking Skills for the English Language Teacher

- 5.3.1 Using Lateral Thinking
- 5.3.2 Strategies for Critical and Creative Thinking

Unit 5.4 Continuous Professional Development (CPD) of the ELT Teacher

- 5.4.1 Stages of the CPD framework
- 5.4.1 Participating in inservice training, seminars and conferences.

Unit 6: Core Content for Core Competences in ELT (15%)**Unit 6.1 The eight 'parts of speech' along with their types and functions****Unit 6.2 Transformation of sentences:**

- 1.2.1 Sentence Types (Assertive, Interrogative, Imperative, Exclamatory),
- 1.2.2 Direct and Indirect Speech,
- 1.2.3 Active and Passive Voice,
- 1.2.4 Affirmative and Negative Sentences

Unit 6.3 Phonics and the International Phonetic Alphabet (IPA) for English.

- 6.3.1 The organs of speech
- 6.3.2 The sounds of English vowels, diphthongs and consonants
- 6.3.3 Using the phonetic script for transcription exercises

Unit 6.4 Comprehension and Composition:

- 1.4.1 Responding to Unseen Texts,
- 1.4.2 Letter Writing,
- 1.4.3 Précis Writing,
- 1.4.4 Essay Writing
- 1.4.5 Writing a Book Review.

References:

1. Bright & McGregor, (1970) Teaching English as a Second Language: Theory and Techniques for the Secondary Stage, Longman.
2. Lado Robert, (1988) Teaching English Across Cultures, McGraw Hill.
3. Hubbard, Peter et al, (1983) A Training Course for TEFL, OUP.
4. Jeremy Harmer, (2003) The Practice of English Language Teaching with DVD (4th Edition).
5. Richards & Renandya, (2002) Methodology in Language Teaching: An Anthology of Current Practice, CUP.
6. Ur & Wright, (1992) Five-minute activities, CUP.
7. Ur P. (1998) Grammar Practice Activities, CUP.
8. Bolton D. and Goodey N. (2008) English Grammar in Steps, Richmond.
9. Woodward Tessa, (2001) Planning Lessons and Courses, CUP.
10. Cameron L., (2001) Teaching English to Young Learners, CUP.
11. Tomlinson, C. (2004) How to Differentiate Instruction in Mixed Ability Classrooms. Upper Saddle River, NJ: Prentice Hall.
12. Tickoo M. L. (2009) Teaching and Learning English, Orient Black Swan.
13. White G. (1998) Listening, OUP.
14. Underwood M. (1989) Teaching Listening, Longman.
15. Wallace C. (1992) Reading (OUP).
16. Nuttall C, (1982) Teaching Reading Skills in a foreign Language, OUP.
17. Hedge T. (1985) Using Readers in Language Teaching, Macmillan.
18. Hedge Tricia, (2000) Teaching and Learning in the Language Classroom, OUP.
19. Bygate M. (1987) Speaking, OUP.
20. Malamah-Thomas A. (1987) Classroom Interaction, OUP, 1987
21. O'Connor J. D. (1980) Better English Pronunciation, CUP 2nd Ed.
22. Hedge T. (1988) Writing, OUP, 1988
23. Brooks & Grundy (1990) Writing for Study Purposes. CUP.
24. Sinclair J. Ed. (1990) Collins COBUILD Grammar, Harper-Collins.
25. Quirk R. and Greenbaum S. (1973), A University Grammar of English, Pearson
26. Geoffrey Leech & Jan Svartvik (1975) A Communicative Grammar of English, OUP, 3rd Ed.
27. Andersen, Peter. (2007). *Nonverbal Communication: Forms and Functions* (2nd ed.) Waveland Press.
28. Argyle, Michael. (1988). *Bodily Communication* (2nd ed.) Madison: International Universities Press.
29. Matt Purland (2012) Talk a Lot: Spoken English Course, My Ebook Publishing House.

30. Tickoo Champa (1997) Writing With A Purpose, OUP.
31. Littlewood William (1981) Communicative Language Teaching, (CUP).
32. Doff, Adrian, (1988) Teach English, CUP.
33. Richards and Rogers, (1986) Approaches and Methods in Language Teaching, CUP.
34. Tudor, Ian (1996) Learner-centredness in Language EducationCUP.
35. De Bono, Edward, (1) 1990,New Thinking for the New Millennium and
(2) 1992, Teaching Thinking, Penguin
36. www.britishcouncil.in/teach/continuing-professional-development

EDU 07-08 ihndI BaaYaa AQyaapana iSaxaNa
METHODOLOGY OF TEACHING HINDI

paazyak`ma ko ivaSaoYa]XoSya :

- BaaYaa ko Alaga Alaga BaUimakaAaoM kao jaananaa
- BaaYaa salKanao salKanao kl saRjanaatmak pa`ik`yaa kao jaananaa
- BaaYaa ko svaipa AaOr vyavasqaa kao samaJanaa
- paazyacayaa_, paazyak`ma AaOr paazyapaustak ka ivaSlaoYaNa kr kxaa ivaSaoYa AaOr baccaaom kl samaJa ko Anausaar Zalanaa
- BaaYaa salKanao ko tarlko AaOr pa`ik`yaa kao jaananaa
- BaaYaa AaOr saaihtya ko saMbaMQa kao jaananaa
- ihndI BaaYaa ko ivaivaQa \$paaom AaOr AiBavyaiAtayaaom kao jaananaa
- BaaYaa ko maUlyaaMkna kl pa`ik`yaa kao jaananaa
- ihndI saaihtyak, maaOilak rcanaaAaoM kl samaJa kao ivakisata krnaa
- BaaYaa salKanao-isaKanao ko saRjanaatmak dRiYTkaoNa kao samaJanaa
- baalak ko savaa_MgalNa ivakasa maoM ihndI BaaYaa kao samaJanaa
- ihndI BaaYaa iSaxak ko]<ardaiyatva va caunaaOitayaaom kao samaJanaa
- ihndI BaaYaa AQyaapna ko saU~a va isaQdaMtaaoM ka AaQyaapana krnaa
- ihndI BaaYaa kl ivaivaQa ivaQaaAaoM,]d\doSyaaom evama ivaiQayaaom kl jaanakarl p`aapta krnaa
- BaaYaa ko dRZIkNa maoM BaaYaa kaOSalaaom kl jaanakarl p`aapta krnaa
- BaaYaa AQyaapana ko]Bartao AayaamaaoM kl jaanakarl AaOr]naka]payaaoga krnaa
- ihndI BaaYaa AQyaapna maoM ivaiBanna SaOxaiNak saaQanaaoM ka]payaaoga krnaa

GaTk 1 : baalak ko savaa_MgalNa ivakasa maoM BaaYaa va BaaYaa iSaxak ka mah<va (20%)

ihndI BaaYaa ka]d\gama ³saMixapta AQyayana`

- ihndI BaaYaa kl pahcaana
- ihndI BaaYaa ka mahtva

1.2 ivaValayalna paazyak`ma maoM ihndI BaaYaa ka sqaana va mahtva

- i~aBaaYaa saU~a
- kaozarI Aayaaoga 64-66 ko sauJaava
- saMvaOQaainak p`avaQaana
- vata_maana samaya maoM BaaYaa ka badlataa sva\$pa

1.3 BaaYaa iSaxak

- ihndI BaaYaa iSaxak ko ivaSaoYa gauNa
- badlatao pairvaoSa maoM ihndI BaaYaa iSaxak ko]<ardaiyatva evama\ caunaaOitayaa*

GaTk 2 BaaYaa iSaxaNa par ek dRiYT (15%)

2.1 BaaYaa iSaxaNa kl pa`cailata ivaiQayaa* :

- vyaakrNa Anauvaad pa`Naalal
- pa`tyaxa pa`Naalal
- Za*caagata pa`Naalal
- saMpa`oYaNaatmak pa`Naalal

2.2 AQyaapana ko paaz pa`kar : (paaz inayaaojana)

- gadya paaz
- padya paaz
- rcanaa paaz
- vyaakrNa paaz

2.3 paaz inayaaojana , GaTk inayaaojana, vaaiYa_k inayaaojana

GaTk 3 : paazyapaustak AaOr AQyaapana paQditayaa* (10%)

3.1 paazyapaustak ka mahtva AaOr inakYa

- paazyak`ma taqaa paazyapaustakaoM ka sabaMQa
- paazyapaustak ka taulanaatmak AQyayana

3.2 naaTyalkrNa , BaUimaka paalana – Aqyaapana paQdita

3.3 pa`klpa paQdita / caciaa_ paQdita / pairsaMvaad – Aqyaapana paQdita

GaTk 4 : sahayak iSaxaNa saamaga`l AaOr BaaYaa]pak`ma (15%)

4.1 SaOxaiNak saaQana : saMklpanaa, mahtva,

- dRSya saamaga`l, Eaavya saamaga`l, BaaYaa pa`yaaogaSaalaa
- ipa`MT maliDyaa , pai~akae*, samaacaar pa~a, kxaa paustakalaya

4.2 AQyayanaanauvatal_]pak`ma: saMklpanaa, mahtva, pa`kar

4.3 svaaQyaaya : saMklpanaa, mahtva, pa`kar

4.4 BaaiYak Kaolaaom ka AQyaapana : AavaSyaktaa ,mahtva, pa`kar

GaTk 5 : BaaYaa saaihtya AaOr saaOMdya_ (10%)

5.1 saRjanaatmak BaaYaa ko ivaivaQa \$pa :

- paazSaalaa ko paazyak`ma maoM saaihtya ko ivaivaQa \$pa
- Anya BaaYaaAaoM ko saaihtya ka ihndl mao Anauvaad

5.2 saaihtyak AiBavyaiÁta ko ivaivaQa \$pa :

- samakalalna saaihtya kl paZa{ (baala saaihtya, dilata saaihtya, s~al saaihtya Aaid)
- gaV, paV, naaTk, khanal, inabaMQa, Anauvaad, pa~alaoKana, Aatmakqaa Aaid

5.3 gaaovaa ko ihndl saaihtyak :]naka laokana taqaa]nakl pahcaana

GaTk 6 : BaaiYak kaOSala , SaOixak inadana evaM]pacaarl iSaxaa : (20%)

6.1 BaaiYak kaOSala :

- EavaNa, BaaYaNa – baaolanao , saunanao ka kaOSala
 - BaaYaa{ ivaivaQataa taqaa ihndl BaaYaa par [saka pa`Baava
- pazna : paZnao ko kaOSala ka ivakasa
 - maaOna AaOr mauKar pazna,
 - gahna pazna,
 - ivastaRta pazna
- laokana : laokana ko kaOSala ka ivakasa
 - ilaKanao ko carNa, laokana pa`ik`yaa, saRjanaatmak laokana, AaOpacaairk AaOr AnaaOpacaairk laokana (kivataa, khanal, saMvaad, Dayarl, pa~a, irpaoT_, samaacaar Aaid)

6.2 BaaiYak kaOSala maoM daoYa , karNa ,]paaya

6.3 ihndl BaaYaa SaOixak inadana :

- inadanaatmak pairxaNa
-]pacaaratmak iSaxaNa

GaTk 7 : BaaiYak maUlyaaMkna , saMklpanaa, mahtva, pa`kar (10%)

7.1 maaOiKak maUlyaaMkna : mahtva, pairxaa ko pa`Sna pa`kar

7.2 ilaiKata maUlyaaMkna : mahtva, pairxaa ko pa`Sna pa`kar

7.3 saatatyapaUNa_ sava_kYa maUlyaaMkna : mahtva, parlxaa ko pa`Sna pa`kar

7.4 talna Aayaamal taÁtaa , pa`Sna pai~aka, pa`Sna ivaSlaoYaNa,]ttar pai~aka

pairyaaojanaa kaya_ :

- kxaa paa*caval sao dsaval tak ko ihndl paazyapaustak maoM vyaakrNa saMbaMQal AByaasa kl saUica taOyaar kroM |
- ivaiBanna baao_D kl ihndl kl paazyapausta k taqaa paazyak`ma ka ivaSlaoYaNa AaOr pa`stauitakrNa kroM |
- vyaakrNa paazaoM ka AQyaapana taqaa kxaa maoM pa`stauitakrNa kroM |
- Ca~aaoM vdara BaaiYak Kaolaaom kl inaima_ita krnaa taqaa kxaa maoM pa`stauitakrNa krnaa |
- kxaa maoM Ca~aaoM kl BaaYaa ka jaayajaa laotao hue ihndl ko ivaivaQa \$paaom par ek irpaa_oT taOyaar kroM |
- ivaivaQa paazaoM ka inayaaojana taqaa kayaa_nvayana kroM (paaz inayaaojana : takinaki , saMgaNak kl sahayataa) |
- Ca~aaoM vdara SaOixak saaQanaaoM kl inaima_ita taqaa pa`stauitakrNa |
- vata_maana baala saaihtya, s~al saaihtya, dilata saaihtya kl samalxaa kroM |
- saunanao AaOr baaolanao maoM Asamaqa_ Ca~aaoM ka inadana kr]pacaaratmak iSaxaNa ka Aayaaojana kroM |
- sqaanalya klaakaraom , kivayaaom, saaihtyakaraom ka saaxaatkar |
- pai~aka taOyaar krnaa |
- nalla pai~aka , pa`Sna taqaa]ttar pai~aka kl saMrcanaa |
- sai~aya parlxaa ka paazSaalaa maoM pa`iSaxaNa ko daOrana Aayaijana kroM |

sandBa_ saUica :

- iSaxaNa pa`iSaxaNa AaOr ihndl AQyaapana : Da#. AanaMd vaaskr, Da#.pauYpaa vaaskr (AavaRi<a :2002)
- ihndl iSaxaa - ek AaQauinak dRiYTkaona : pa`a#. bal.DI. paaTIIa, pa`a#. ivanaaod paaTIIa
- iSaxak pa`iSaxaNa AaOr ihndl AQyaapana : Da#. AanaMd vaaskr , Da#. pauYpaa vaaskr(AavaRi<a 2009)

- ihndI AQyaapana pairSallana : Da Saas~al jayaond` dvao , Da. rvaInd` AnQaairyaa (bal. sal Saah pa`kaSana |
- [Midra gaaMiQa mauÁta ivaVapalz : bal. eD. pa`aoga`ama paazyak`ma |

EDU 07-08 METHODOLOGY OF TEACHING MARATHI

marazI BaaYaa AQyaapana iSaxaNa

jiXSTo:-

ivaVaqyal_ iSaxakasa :-

- marazI BaaYaa AQyaapanaacao mah<va jiXYTo, saU~ao samajaNyaasa madta krNao.
- BaaYaa iSaxakacao Apaoixata gauNaivaSaoYa samajaNyaasa va tao AMgal baaNavaNyaasa madta krNao.
- marazI BaaYaa AByaasaÂmaacao vaogavaogaLo GaTk AaiNa paaz inayaaojana pa`karaMcal AaoLKa GaDivaNao.
- GaTk inayaaojana va vaaiYa_k inayaaojana ksao kravao yaaivaYayal madta krNao.
- marazI paazyapaustakacaoM mah<va AaiNa inakYa laxaata AaNaUna doNao.
- AQyaapanaacyaa ivaivaQa pawtaIMcal AaoLKa GaDivaNao va tyaaMcao jpayaaojana krNyaasa p`avaR<a krNao.
- maUiyaaMknaacalM taM~ao samajaNyaasa va jpayaaojana krNyaasa madta krNao.
- marazIcao AQyaapana krtaanaa garjaonausaar ivaivaQa SaOxaiNak saaQanao_vaaaparNyaasa pao`irta krNao.
- marazIcyaa AQyaapanaata vaogavaogaLyaa AByaasaanauvatal_ jpak`maaMcaoM Aayaaojana krNyaasa madta krNao
- naOdainak ksaaotI AaiNa saMpaadna caaMcaNal tayaar krNyaasa madta krNao

- 1.1 marazl BaaYaocao mah<va.
- 1.2 marazl BaaYaa iSaxaNaacal JiXYTo
 - 1.2.1 p`aqama BaaYaa- marazl
 - 1.2.2 taRtalya BaaYaa- marazl
- 1.3 marazl BaaYaa AQyaapanaacal saU~ao.
- 1.4 marazl BaaYaa-AQyayanaacal saamaanya ta<vao.
- 1.5 marazl BaaYaocao_iSaxak.

GaTk 2 : AByaasaÂmaacao vaogavaogaLo GaTk AaiNa paaz inayaaojana 15%

2.1 saaihtya pa`karaMcal AaoLKa.

- 2.1.1 **gaV.** --kqaa , kadMbarl, naaTk, cair~a, Aatmacair~a, vyaiÂtaica~ao, pa`vaasavaNa_na [.
- 2.1.2 **paV.** --ABaMga, Aaoval, paaovaaDo, Baavagaltao, BaiÂtagaltao, saamaaijak, inasaga_, doSaBaiÂtapar kivataa [.
- 2.1.3 **rcanaa/laoKana.** —**inabaMQa...** vaNa_naاتمك, AatmavaR<aatmak, klpanaapa`Qaana, vaOcaairk **inabaMQa**, mauXyaaMcyaa/ ica~aaMcyaa AaQaaro **kqaa** [. **pa~a** ...kaOTuMibak, vyaavasaaiyak, Aja_ [.
- 2.1.4 **vyaakrNa** (SabdaMcyaa jaatal, ilaMga, vacana, SauwlaoKana, ivaramaicanho [.)

2.2 paaz inayaaojana

- 2.2.1 gadya paaz.
- 2.2.2 padya paaz.
- 2.2.3 rcanaa paaz.
- 2.2.4 vyaakrNa paaz.
- 2.3 paaz inayaaojanaacao mah<va.
- 2.4 GaTk inayaaojana.
- 2.5 vaaiYa_k inayaaojana.

GaTk 3 : paazyapaustak AaiNa AQyaapana pawtal

20%

3.1 paazyapaustakacao mah<va AaiNa inakYa.

- 3.1.1 AMtarMga.
- 3.1.2 baihrMga.

3.2 ivaivaQa AQyaapana pawtal

(gauNadaoYa, mah<va)

- 3.2.1 naaTyalkrNa AaiNa BaUimaka paalana.
- 3.2.2 pa`klpa pawtal
- 3.2.3 cacia_ pawtal
- 3.2.4 vyaakYaana pawtal
- 3.2.5 pairsaMvaad

- 3.2.6 bauiwmaMqana
3.2.7 saMBaaYaNa

GaTk 4 : SaOxaiNak saaQanao AaiNa BaaYaa]pak`ma 20%

- 4.1 saMklpanaa, mah<va, pa`kar,]payaaoga.
4.2 dRk saaQanao ,
4.3 Eaavya saaQanao.
4.4 dRk – Eaavya saaQanao.
4.5 svaaQyaaya : saMklpanaa, mah<va, pa`kar.
4.6 AByaasaanauvatal_]pak`ma: saMklpanaa, mah<va, pa`kar.
4.7 BaaYaa pa`yaaogaSaaLa: saMklpanaa, mah<va, pa`kar.
4.8 BaaiYak KaoL

GaTk 5 : BaaiYak maUlyaaMkna 15%

5.1 maaOiKak maUlyaaMkna.

- 5.1.1 maaOiKak maUlyaaMknaacoo mah<va.
5.1.2 maaOiKak parlxaoceo pa`kar.

5.2 ilaiKata maUlyaaMkna.

- 5.2.1 ilaiKata maUlyaaMknaacoo mah<va.
5.2.2 ilaiKata parlxaoceo pa`Sna -pa`kar.
5.2.3 nalla pai~aka AaiNa talna Aayaamal ta>a.
5.2.4 pa`Sna pai~akocal rcanaa.
5.2.5 pa`Sna ivaSlaoYaNa.
5.2.6]ttar pai~aka.

5.3 satata sava_samaavaoYak maUlyaaMkna.

GaTk 6 : BaaiYak daoYa, SaOxaiNak inadana AaiNa]pacaarl iSaxaNa 15%

6.1 BaaiYak daoYa

- 6.1.1 EavaNa daoYa, karNao va tyaavarlla]paaya.
6.1.2]ccaarNa daoYa, karNao va tyaavarlla]paaya.
6.1.3 laoKana daoYa, karNao va tyaavarlla]paaya.

6.2 : SaOxaiNak inadana AaiNa]pacaarl iSaxaNa.

- 6.1.1 SaOxaiNak inadana AaiNa]pacaarl iSaxaNaacal saMklpanaa Aanal mahtva.
6.1.2 SaOxaiNak inadana AaiNa]pacaarl iSaxaNaacal pa`ik`yaa.
6.1.3 naOdainak ksaaOTI AaiNa saMpaadna caaMcaNal.

GaTk 7: AByaasaÂma AiBavaRwl: (AMtaga_ta maUlyaaMkna)

Internal Assessment

- 7.1 gaV.** --kqaa , kadMbarl, naaTk, cair~a, Aatmacair~a, vyaiÂtaica~ao, pa`vaasavaNa_na [.]

7.2 paV. –ABaMga, Aaoval, paaovaaDo, Baavagaltao, BaiÁtagaltao, saamaaijak, inasaga_, doSaBaiÁtapar kivataa [.

7.3 rcanaa/laoKana. —**inabaMQa**... vaNa_naatmak, AatmavaR<aatmak, klpanaapa`Qaana, vaOcaairk inabaMQa, mauXyaaMcyaa/ ica~aaMcyaa AaQaaro **kgaa** [. **pa~a** ...kaOTuMibak, vyaavasaiyak, Aja_ [. vaak\pa`caar, mhNal,]KaaNal [.

7.4 vyaakrNa (SabdaMcyaa jaatal, ilaMga, vacana, SauwlaoKana, ivaramaicanho [.)

Practicum

1. Saalaoya paazyapaustakacal samalxaa.
2. GaTk caacaNal kayaa_nvayana.
2. pa`Sna-pai~akocal rcanaa AaiNa kayaa_nvayana.
3. svaaQyaaya laoKana AaiNa saadrIkrNa.
4. saMgaNakacyaa sahayyaanao saadrIkrNa.
5. vaogavaogaLyaa paazaMcao inayaaojana AaiNa kayaa_nvayana.
6. SaOxaiNak saaQanaaMcal inaima_tal.
7. Anauvaad krNao.
8. BaaiYak KaoLaMcal inaima_tal –]dahrNao
9. gaaomaMtaklya marazl saaihityakaMcyaa maulaaKatal

saMdBa :

1. marazl BaaYaocao AQyaapana - ma.vaa. kuMDlao.
2. marazl BaaYaocao AQyaapana – Akaolakr.
3. iSaxak pa`iSaxaNa - Da#. vaasaMtal fDko.
4. AaSayayauÁta AQyaapana pawtal - Da#. h.naa. jagataapa
5. AQyaapanaacal pa`itamaanao - Da#. vaasaMtal fDko.
6. kaoMkNal BaaSaocaoM AQyaapana – vasaMta gaao. lavaMdo.
7. marazlcao AQyaapana- sauroSa krMdlkr.

EDU 07-08 METHODOLOGY OF TEACHING KONKANI. **kaoMkNal BaaSaa AQyaapana iSaxaNa**

JiXSTaM:

- ivaVaayaa_Mk kaoMkNal BaaSaocal(AavayaBaasa) vaLKa/sad\yaacal isqatal Aanal idka, sau~aaM, tatvaaM. mahtva samajaupaak Aadar idtalaoM.

- ivaVaagyaa_Mk kaoMkNal BaaSaocyaa iSaxakacao gaUNa AapaNaavapaak madta krtalao.
- ivaVaagyaa_Mk kaoMkNal AQyaapanaacao ivaMgaD-ivaMgaD GaTk Aanal paaz inayaaojanaacalM taM~aaM samajaupaak Aadar idtalaoM.
- ivaVaagyaa_Mk GaTk inayaaojana Aanal vasau_kl inayaaojanaaivaSaIM Aaklana jaatalaMo.
- ivaVaagyaa_Mk kaoMkNal paazyapaustakacaoM mahtva Aanal inakSa haMcaoM iganyaana maolTlaoM.
- AQyaapanaacyaa ivaMgaD-ivaMgaD paQdtalMcaoM Aaklana jaatalaoM Aanal jpayaaojana krpaak Aadar idtalaoM.
- ivaVaagyaa_Mk maaOKalk maUlyaaMkna Aanal ilaKalta maUlyaaMknaacalM taM~aaM samajaupaak Aanal jpaoga krpaak madta jaatalal.
- kaoMkNalcaoM AQyaapana krtanaa garjaopa`maaNa ivaMgaD-ivaMgaD SaOxaiNak saaQanaaM vaaparpaak iSaktalalM.
- kaoMkNalcaoM AQyaapana krtanaa ivaMgaD-ivaMgaD AByaasaanauvatal_jpak`maaMcaoM Aayaaojana krpaak iSaktalalM.
- BaaSaocaor Aadarlta inadanaatmak caaMcaNal Aanal saMpaadna caaMcaNal rcapaak iSaktalalM.
- vaVaagyaa_Mcyaa AByaasak`ma ivaSaya-vastaUcal AiBavaRwl jaatalal.

GaTk 1 : kaoMkNal BaaSaa AQyaapana Aanal iSaxak. (15% M)

- 1.1 kaoMkNal BaaSaocal vaLKa/sad\yaacal isqatal Aanal idka (BaaSaocaa pa`saar-pa`caar)
- 1.2 kaoMkNal BaaSaocaoM AByaasak`maatalaoM mahtva
- 1.3 kaoMkNal BaaSaa AQyaapanaacalM saU~aaM
- 1.4 kaoMkNal BaaSaa AQyayana-AQyaapanaacalMo tatvaaM
- 1.5 kaoMkNal BaaSaa iSaxak

GaTk 2 : AQyaapanaacao ivaMgaD-ivaMgaD GaTk Aanal paaz inayaaojana (15% M)

- 2.2 AByaasak`ma ivaSaya-vastaU Aanal jid\ldSTaM:
 - 2.2.1 gaV (kqaa, kadMbarl, naaTk, cair~a Aatmacair~a, baalasaaihtya, vyai>ica~aaM, BaaoMvaDovaNa_naaM)
 - 2.2.2 paV (Bai>igataaM, BaavaigataaM, baalaigataaM, laaokigataaM, CMdbaw kivataa, mau>CMd kivataa)
 - 2.1.3 rcanaa (inabaMd, pa~a, AapajalNa, saaraMSa-laoKana, ANakar, kaNal -ica~aaM Aanal maud\dyaaMcaor Aadarlta, saMvaad)
 - 2.1.4 vyaakrNa (SauwlaoKana, ivaramaicannaaM, SabdaMcyao jaatal, ilaMga, vacana)
- 2.2 ivaMgaD-ivaMgaD paazaMcaoM inayaaojana Aanal mhtva:
 - 2.2.1 gadya paaz
 - 2.2.2 padya paaz
 - 2.2.3 rcanaa paaz
 - 2.2.4 vyaakrNa paaz
- 2.3 GaTk inayaaojana
- 2.4 vaaiSa_k inayaaojana Aanal mhtva

GaTk 3 : kaoMkNal BaaSaa paazyapaustak Aanal AQyaapana taM~aaM/paQdtal/pa`itamaana (20% M)

- 3.1 paazyapaustakacaoM mhtva Aanal inakSa
 - 3.1.1 AMtarMga
 - 3.1.2 baihrMga
- 3.2 kaoMkNal BaaSaa Aanal AQyaapana taM~aaM/pawtal/pa`itamaana.
- 3.3 naaTyalkrNa , BaUimaka paalana(mhtva, gauNadaoSa)
 - 3.4 pa`klpa paQdta
 - 3.5 cacia_ paQdta- pairsaMvaad, bauiwmaMqana,saMBaaSaNa
 - 3.6]d\gaamal Aanal Avagaamal pa`Naalal
 - 3.7 kRtal-koMd`Ita AQyaapana
 - 3.8 AQyaapanaacao pa`itamaana- saMklpanaa-pa`aptal , saja_naatamak ivakasa.

GaTk 4 : SaOxaiNak saaQanaaM Aanal BaaSaa]pak`ma (20% M)

- 4.1 **SaOxaiNak saaQanaaM:-** saMklpanaa, mhtva, pa`kar,]payaaoga
 - 4.1.1 dRk saaQana- (fLao, ica~aaM, nakasaa, SabdpaT\Tyaa/ xaNadiSa_ka, KaoLNal, idsaaLyaaMtalalM katarNaam, pa`itakRtal, A\lao-caaT_)
 - 4.1.2 Eaavya saaQana-(roiDyaa, isaDI, iDivadi)
 - 4.1.3 dRk-Eaavya saaQana- (laGaupaT, ica~apaT, calaica~a, Ba`maNaQvanal, saMgaNak)
- 4.2 BaaSaa]pak`ma:-
 - 4.2.1 svaaQyaaya- saMklpanaa, mhtva, maaga_dSa__k tatvaam, maUlyamaapana
 - 4.2.2 BaaSalk KaoL- saMklpanaa, mhtva, pa`kar.
 - 4.2.3 AByaasaanauvatal_]pak`ma: saMklpanaa, mhtva, pa`kar

GaTk 5 : BaaSalk maUlyaaMkna (15% M)

- 5.1 maaOiKak maUlyaaMkna**
 - 5.1.1. maaOiKak maUlyaaMknaacaoM mhtva
 - 5.1.2 maaOiKak pairxaocao pa`kar
- 5.2 ilaKalta maUlyaaMkna**
 - 5.2.1 ilaKalta maUlyaaMknaacaoM mhtva
 - 5.2.2 ilaKalta pairxaocao pa`sna pa`kar
 - 5.2.3 talna Aayaamal taA\taao Aanal nalla-pai~aka
 - 5.2.4 pa`sna pai~akocal rcanaa
 - 5.2.5 pa`snaaMcal caaval
 - 5.2.6]ttar pai~aka
 - 5.2.7 pa`snaaMcaoM ivaSlaoSaNa
- 5.3 satata sava_samaavaoSak maUlyaaMkna**

GaTk 6 : BaaSalk kaOSalya daoSa, iSaxaNalk inadana Aanal]pacaarl iSaxaNa (15%M)

- 6.1 BaaSalk daoSa**

- 6.1.1 EavaNa daoSa- karNaaM Aanal]paaya.
- 6.1.2]ccarNa daoSa- karNaaM Aanal]paaya.
- 6.1.3 vaacana daoSa- karNaaM Aanal]paaya.
- 6.1.4 laoKana daoSa- karNaaM Aanal]paaya.

6.2. iSaxaNalk inadana Aanal]pacaarl iSaxaNa.

6.2.1. iSaxaNalk inadana Aanal]pacaarl iSaxaNaacal saMklpanaa Aanal mhtva.

6.2.2. iSaxaNalk inadana Aanal]pacaarl iSaxaNaacal pa`ik`yaa.

6.2.3. inadanaatmak caaMcaNal Aanal saMpaadna caaMcaNal.

AByaasak`ma ivaSaya-vastaUcal AiBavaRwl: ivaVapalz maUlyaaMkna krcaoM naa.

GaTk 7. AByaasak`ma ivaSaya-vastaUcal AiBavaRwl:

7.1 gaV (kqaa, kadMbarl, naaTk, cair~a Aatmacair~a, baalasaaihtya, vyai>ica~aaM, BaaoMvaDovaNa_naaM)

7.2 paV (Bai>igataaM, BaavaigataaM, baalaigataaM, laaokigataaM, CMdbaw kivataa, mau>CMd kivataa)

7.3 rcanaa (inabaMd, pa~a, AapajalNa, saaraMSa-laoKana, ANakar, kaNal - ica~aaM Aanal maud\dyaaMcaor Aadarlta saMvaad)

7.4 vyaakrNa (SauwlaoKana, ivaramaicannaaM, vaak\pa`caar, mhNal,]maaNalM, SabdaMcyaaO jaatal, ilaMga, vacana)

Practicum

1. SaaLocyaa paazyapaustakacal samalxaa
2. pa`sna-pai~akocal rcanaa Aanal vagaa_talaoM kayaa_nvayana
3. svaaQyaaya laoKana Aanal pa`stautalkrNa
4. saMgaNakacaor AaQaarlta pairxaa
5. ivaMgaD-ivaMgaD_paazaMcaoM inayaaojana Aanal kayaa_nvayana
6. SaOxaiNak saaQanaaMcal inama_Nal
7. sa~alya pairxaa
8. baraovapyaaMcyaaO maulaaKatal
9. AByaasak`ma ivaSaya-vastaUcal AiBavaRwl

Aadraval :

1. kaoMkNal BaaSaocaoM AQyaapana – vasaMta gaao. lavaMdo.
2. kaoMkNal BaaSaocaoM vyaakrNa – sauroSa baaorkr.
3. karbaarl kaoMkNal – BaUYaNa Baavao, pa`kaSa vajarlkar, pa`kaSa payao_kar.
4. kaoMkNal ivaSvakaoSa – KaMD 1,2,3,4,
5. marazl BaaYaocao AQyaapana - ma.vaa. kuMDlao.
6. marazl BaaYaocao AQyaapana – Aakaolakr.
7. AQyaapanaacal pa`itamaanao - Da#. vaasaMtal fDko.
8. Educational Technology- Usha Rao.

EDU 07-08 METHODOLOGY OF TEACHING MATHEMATICS

Objectives:

On completion of the course the student will ...

- ☐ State the aims and general objectives of teaching secondary school mathematics.
- ☐ State specific objectives in behavioural terms with reference to concepts and generalizations.
- ☐ Teach different kinds of mathematical knowledge using the appropriate approach and strategy.
- ☐ Evaluate learning of concepts and generalizations.
- ☐ Identify difficulties in learning concepts and generalizations and provide suitable remedial instruction.
- ☐ Describe the importance of language in Mathematics.
- ☐ Explain the methods for teaching mathematical proof in the context of secondary school mathematics.
- ☐ Describe the nature, importance and strategies of problem-solving.
- ☐ Teach proofs of theorems and solutions of problems to develop relevant skills.
- ☐ Evaluate understanding of proofs of theorems and problem-solving skills.

Unit1: Aims and Objectives of Teaching Secondary School Mathematics and Planning for Instruction (10%)

- 1.1** General objectives of teaching Mathematics
- 1.2** Study of the aims and general objectives of teaching mathematics vis-à-vis the objectives of secondary education
- 1.3** Selecting and organizing the content and identifying teaching points for a mathematics lesson
- 1.4** Stating instructional objectives and identifying learning outcomes in behavioural terms
- 1.5** Designing learning experiences –using appropriate strategies, planning for preparation and utilization of instructional materials and evaluation tools
- 1.6** Writing a unit plan and a lesson plan
- 1.7** Learning resources: meaning, rationale and limitations
- 1.8** Types- Charts, models, chalk board, flannel board and geoboard.

Unit 2: (A) Approaches, Methods, Techniques and Models of teaching (20%)

Teaching of Generalizations

2.1 By exposition: Teaching by exposition, Moves in teaching a generalization: Introduction moves - focus move, objective move, motivation move - Assertion move, application move, interpretation moves, justification moves - planning of expository strategies for teaching generalizations.

2.2 By guided discovery: Nature and purpose of learning by discovery, Inductive, deductive - guided discovery strategies, maxims for planning and conducting discovery strategies; planning of strategies involving either induction or deduction or both. Heuristic method, Open approach and Investigative approach.

2.3 Teaching of Problem Solving: Definition of a problem, problem solving, importance of teaching problem solving, problem posing, developing heuristics and strategies for problem solving.

Unit 3 : (B) Approaches, Methods, Techniques and Models of teaching (20%)

3.1 Constructivism in the teaching of Mathematics

3.2 Gagne's hierarchical levels of learning in the teaching of mathematics.

3.3 Computer Aided Instruction

3.4 Teaching of proof: Developing an intuition about the nature of proof - to make the transition from concrete thinking to more formal reasoning and abstract thinking as they progress from class to class.

- Kinds of proofs - proof by mathematical induction, proof by contradiction, proof by cases, the contra positive, conjectures, disproof by counter example.
- Analytic-synthetic method.

3.5 Strategies for Learning Mathematical Concepts

- Nature of concepts, concept formation and concept assimilation
- Moves in teaching a concept - defining, stating necessary and/or sufficient conditions, giving examples accompanied by a reason.
- Comparing and contrasting; giving counter examples; non examples;
- Use of Concept Attainment Model

3.6 Techniques in the teaching of Mathematics

- Drill and review
- Assignments

Unit 4: Assessing Mathematical achievement (10%)

4.1 Purpose of assessment

4.2 Teacher-Made tests

4.3 Construction of appropriate test items

4.4 Question Bank

4.5 Continuous and comprehensive evaluation

4.6 Diagnosing causes of difficulties in learning concepts and generalisations

4.7 Planning remedial instruction based on the diagnosis

Unit 5: The Teacher and the Curriculum (15%)

5.1 Qualities of a Mathematics Teacher

5.2 Role of various Associations of Mathematics Teachers

5.3 Importance of the subject in the school curriculum

5.4 Different approaches to curriculum development

5.5 Mathematics Club: Making Mathematics curriculum interesting

5.6 Concept and significance of correlation

5.7 Correlation with life

5.8 Correlation between (i) the different branches of Mathematics

(ii) Language and mathematics

(iii) Science and mathematics

Unit 6: Teaching of Arithmetic and Algebra

(15%)

6.1 Teaching of Arithmetic:

- Real numbers
- Squares and square roots
- Cubes and cube roots
- Laws of Indices
- LCM and HCF
- Percentage
- Ratio and proportion
- Profit and Loss
- Discount
- Simple and Compound Interest.
- Arithmetic progressions

6.2 Teaching of Algebra

- Algebraic Expressions
- Polynomials
- Factorization
- Linear and Quadratic Equations
- **Sets**
- **Series and Sequence**

Unit 7: Teaching of Geometry, Trigonometry, Probability and Statistics

(10%)

7.1 Teaching of Geometry

- Basic Geometrical Ideas, Lines and Angles
- Circle –properties of chords and tangents
- Geometrical Constructions
- Symmetry
- Triangle and its Properties
- Similarity and Congruence of Triangles
- Properties of Quadrilaterals
- Coordinate Geometry
- Visualizing Solid Shapes
- Area and Perimeter of 2-D figures
- Surface Area and Volume of 3-D figures

7.2 Teaching of Trigonometry

- Meaning
- Trigonometric Ratios
- Trigonometric Identities
- Heights and distances

7.3 Teaching of Statistics

- Types of data
- Collection of Data
- Organization and Representation of data with the help of tables and Graphs
- Interpretation of Data
- Measures of Central Tendency (Mean, Median and Mode)
- Measures of Variation (Range)

References:

1. Butler and Wren (1965). , The Teaching of Secondary Mathematics, London: McGraw Hill Book Company.
2. Cooney, T.J. and Others (1975), Dynamics of Teaching Secondary School Mathematics, Boston: Houghton Mifflin.
3. Depka E. (2007). Designing assessment for Mathematics. Sage, New Delhi.
4. Ediger M. and Rao D. B. (2011). Essays on Teaching Mathematics. Discovery Publishing House, New Delhi.
5. Kapfer, Miriam B (1972). Behavioural objectives in Curriculum Development: Selected Readings and Bibliography. Englewood Cliffs, NJ: Educational Technology.
6. Krulik S. and Rudnick J. A. (1993). Reasoning and Problem Solving. Allyn and Bacon, Massachusetts.
7. Mager, Robert (1962). Preparing instructional objectives, Palo Alto, C A: Fearon.
8. NCERT, A textbook of Content-cum-Methodology of Teaching Mathematics, New Delhi: NCERT.
9. Orton A. and Frobisher L. (1996). Insights into Teaching Mathematics. Cassell, New York.
10. Orton A. and Wain G. (1996). Issues in Teaching Mathematics. Cassell, London.
11. Polya, George (1957) How to solve it, Garden City, New York: Doubleday.
12. Servas, w and T. Varga. Teaching School Mathematics - UNESCO Source Book.

Periodicals

Journal of Research in Mathematics
 Mathematics Teaching
 School Science and Mathematics
 The Mathematics Teacher

Textbooks

IGNOU, Textbooks of Mathematics for B.Ed
 NCERT, Textbook of Pedagogy of teaching Mathematics for two year B.Ed
 NCERT, Textbooks of Mathematics for Class V,VI,VII,VIII,IX and X

EDU 07-08 - METHODOLOGY OF TEACHING SCIENCE

UNIT 1: PLANNING FOR TEACHING (20%)

1.1 Learning Objectives & Specification of Objectives

- Writing instructional objectives and their specifications using the Revised Bloom's Taxonomy (RBT)

1.2 Support Materials

- Planning and use of: Posters, Charts, Chalkboard, Flannel Board, Magnetic Board, Graphic Organisers, Activity Sheets/Worksheets, Models (static & working models)

1.3 Lesson Planning (Assessed as Practical work)

- Lesson Plan Format: Set Induction, Development, Assessment
- Alternative Lesson Plan Formats (Brain-based teaching, Activity-based, Cooperative learning)

1.4 Unit Plans, Annual Plan(Assessed as Practical work)

- Writing Unit Plans & Annual Plans

1.5 Information & Communication Technology

- Need, characteristics planning the use of: Video, CD-ROMs, Animations, Simulations, Interactive
- Whiteboard/Smart boards, computers
- Planning the use of blog, web based teaching –learning, Web 2.0 tools

UNIT 2: APPROACHES, TECHNIQUES STRATEGIES (15%)

2.1 The Constructivist Approach to Science teaching

- Its Meaning, Principles
- Its relationship to Traditional Teaching (expository approaches)

2.2 Constructivism & Objectivism

- Differences between Constructivism & Objectivism

- Use of Objectivism and Constructivism in teaching specific content
- Writing Instructional Objectives and their Specifications, their use in assessment – RBT

2.3 Models of Teaching

- Inductive Thinking Model,
- Inquiry Training Model,
- Concept Attainment Model

2.4 Alternative techniques of teaching (principle, objectives, planning and implementation)

- Brain-based Teaching Strategies
- Activity-based Teaching
- Kagan Cooperative learning (the use of 'Structures')
- Teaching With Analogies model

Unit 3: ASSESSMENT OF SCIENCE TEACHING (20%)

3.1 Questioning

- Function, types of questions, framing questions under the Revised Bloom's Taxonomy (RBT), framing Higher-Order questions

3.2 Achievement Tests (Assessed as practical work)

- Designing, administering, scoring and analysing an achievement test

3.3. Designing Assessment Tools

- Rubrics for assessing Science Projects , Science Exhibitions, Student Laboratory Practical Work, Laboratory Journals, Discussions and Debates
- Checklists for assessing Scientific Attitude

3.4 Performance Assessment

- Meaning, function, merits of Performance Assessment
- Oral test/viva for performance assessment
- Performance Assessment for Laboratory Work (one experiment each in Physics, Chemistry, Biology)

Unit 4: THE NATURE OF SCIENCE (10%)

4.1 Nature of Science & its Meaning

- Science as Product & Process

4.2 Science Process Skills

- Its meaning, need,
- Six Basic skills: Observing, Inferring, Measuring, Communicating, Classifying, Predicting
- Six Integrated Process Skills: Controlling Variables, Defining Operationally, Formulating
- Teaching 'process skills'

4.3 Science & Technological Literacy (STL)

- Concept of STL, methods of communicating STL
- Efforts to enhance STL

4.4 Objectives of Teaching Science(NCFTE)

- At the High School, Secondary School levels

4.5 Objectives of Teaching Science for pre-service (NCFTE)

- At B.Ed. Level

4.6 Correlation of Science & other school subjects

- Making 'connections' between Science and other school subjects in Lesson Plans

Unit 5: THE SCIENCE TEACHER AND SCIENCE EDUCATION IN INDIA (15%)

5.1 The constructivist science teacher

- Role of a constructivist science teacher
- Personal Beliefs about Teaching & Learning

5.2 Developing a Scientific Attitude

- Characteristics of a person with Scientific Attitude
- Strategies to develop scientific attitude

5.3 Professional Growth

- Role of Science Organisations (e.g. UNESCO, HBCSE),
- Role of Science Magazines (e.g. Science Reporter, Scientific American),
- Role of science-related events (e.g. Olympiads, Competitions, Conferences)

5.4 Science education in India (Not to be assessed)

- Landmarks in the development of science education
- Innovative efforts in the field of science education

5.5 Motivating the Science Learner

- Science Clubs
- Science Debates/Discussions
- Experimental Science Projects
- Science Exhibitions
- Field Trips
- Role play, drama, music, documentaries, street play, story

UNIT 6: Content Enrichment (20%)

Content enrichment in Physics, Biology and Chemistry considering the Science textbooks of Standard V TO IX syllabus followed by the Goa Board:

1. Living organism and surroundings.
2. Nutrition and life processes.

3. Modern Periodic Table, Properties of elements and compounds.
4. Properties of metal and non metal.
5. Chemical reactions.
6. Properties and uses of acid, bases and salts.
7. Light, shadows and reflections, properties of mirrors and lenses.
8. Electricity and magnetism.
9. Heat and combustion.
10. Force.
11. Pressure.
12. Sound.
13. Friction.
14. Laws of motion.
15. Work and Energy.

References

- 1 Bhatt, B.D. Sharma, S.R..(1993).Method of Science Teaching: Delhi, Kanishka Publishing House
- 2 Garg, C.L.,Garg Amit. (2003). Seventy one plus Ten New Science projects14th ed.: Delhi, Pustak Mahal
- 3 Misra, A .(1991). Performance Discrepancy of Science Teachers: Delhi: Kanishka Publishing House
- 4 Rai, B.C. (1992).Method Teaching of Science Lucknow: Prakashan Kendra
- 5 Sharma,R.C. (1992). Modern Science Teaching Delhi :Dhanpat Rai and Sons
- 6 N.C.E.R.T. (1960). Evaluation in General Science: New Delhi
- 7 Richardson , John S. (1964) Science teaching in secondary school :Englewood Prentice Hall
- 8 Cull R.G.; Drake,W.A. (1979). Concepts of science-1 New Delhi: Wiley Eastern L.T.D.
- 9 Cull R.G.; Drake,W.A. (1991). Concepts of science-2 New Delhi:Wiley Eastern L.T.D.
- 10 Cull R.G.; Drake,W.A. (1991). Concepts of science-3 Ne Delhi: Wiley Eastern L.T.D.
- 11 Atkinson, Arthur (1988) Modern university chemistry. New Delhi: Oxford University Press
- 12 Beckett Brain, Gallagher R.M. (1988.) All about biology.Oxford: Oxford University Press
- 13 Beckett B.S. (1989). Illustrated biology.Oxford :Oxford University Press
- 14 Sharma,R.C. (1994). Modern science teaching Delhi: Dhanpat Rai and Sons
- 15 Das ,R.C. (1985). Science teaching in schools 2nd ed .New.Delhi: Sterling Publishers PVT.LTD.
- 16 Vaidya Narendra. (1970). Some aspects of Piagets work and science teaching: a Contribution towards the foundation of science teaching. New Delhi:S.Chand & Co.Ltd.
- 17 Siddiqui,N.N. Siddiqui,M.N. (1991). Teaching of science today and tomorrow 3rd ed New Delhi: Doaba House
- 18 Kishore,L .(1991). Teaching of physical science New. Delhi Doaba House
- 19 Radha Mohan. (1995). Innovative science teaching New Delhi: Prentice Hall
- 20 Das R.C., (1985). *Teaching of Science*, 2nd Edn. New Delhi : Sterling Publishers Pvt.Ltd
- 21 Narendra, V. (1971) *The Impact of Science Teaching*. New Delhi: Oxford and IBH Publishing house.
- 22 Krishnamacharyulu,V. (2006). *Teaching of science*.Hyderabad: Neelkamal Publishers.
- 23 Narasimha, K.(2005). *Content cum Method of Teaching Chemistry*.Bangalore:Sumukha Prakashana.
- 24 Rajasekar. (1995). *Method of Teaching Physical Sciences*. Hyderabad: Neelkamal publishers
- 25 Thurber W.A. and Colletta A., (1964). *A Teaching Science in today's Secondary schools*.New Delhi: Prentice Hall of India.

- 26 Anderson, R.D. (1970). *Developing Children's thinking Through Science*. New Delhi: Prentice Hall,
- 27 Chand, B. (1986). *Teaching of Science*. Ludhiana: Prakash Brothers
- 28 Chauhan, S.S. (2000). *Innovation in Teaching Learning Process*. New Delhi: Vikas Publishing House Pvt. Ltd.,
- 29 Joyce, Bruce and Marsha Weil. (1997). *Models of Teaching* (4th Ed.) .New Delhi: Prentice Hall, Pvt Ltd.
- 30 Maitre, K. (1991). *Teaching of Physics*. New Delhi: Discovery Publishing House,
- 31 Mukalel, J.C. (1998). *Creative Approaches to Classroom Teaching*,. New Delhi: Discovery Publishing House.
- 32 Prasad, J. (2005). *Practical Aspects in teaching of Science*, Kanishka Publishers
- 33 Rao, D.B. (1997). *Reflections on Scientific Attitudes*. New Delhi: Discovery Publishing House.

EDU 07-08: METHODOLOGY OF TEACHING HISTORY

Course Objectives:

This course would aim at –

- Making students understand the meaning of history and history curriculum in their broader perspectives.
- Understanding similarities and differences of textbooks of different boards.
- Equipping students with the knowledge and skill of making unit portfolios
- Helping students to integrate ICT and relevant instructional materials in teaching and learning of history.
- Helping students to select and use appropriate teaching methods for developing historical understanding.
- Equipping students with the knowledge and skill of selecting and preparing evaluation tools and techniques.
- Appreciating good features of question papers of different boards
- Making them understand the needs and means of professional development in teaching.
- Helping in preparing instructional strategies in the units of History textbooks.






Unit 1. Understanding History and History curriculum (15%)

- 1.1 Concept of history and historiography
- 1.2 Need / Aims of teaching History in secondary school
- 1.3 National curriculum in History (from std. 6th to 10th): Structure, purpose, approach, how it is different from earlier curriculum.
- 1.4 Curriculum design in history as it practiced in India, controversies in curriculum design, role of state government in curriculum design.
- 1.5 Analysis and Comparison of History curriculum of Goa with that of Karnataka and Maharashtra, any private board like ICSE.

Unit 2. Planning for Teaching (15%)

- 2.1 Making a Unit Portfolio: Writing a unit plan, Need of Unit portfolio, Components of a Unit Portfolio
- 2.2 Lesson planning : need, steps, and components of lesson plan
- 2.3 Use of textbooks: Deciding its use in teaching
- 2.4 Use of ICT in lesson planning, lesson execution, evaluation. ICT based assignment
- 2.5 Writing lesson plans for different kind of lessons, different formats of lesson plan, writing lesson notes

Unit 3. Developing historical understanding (20%)

- 3.1 Developing historical empathy (meaning, need, procedure)
- 3.2 Teaching values through history (means)
- 3.3 Developing historical concepts/ understanding
 -  Teaching chronology/time
 -  Cause, effect and consequence
 -  Change and continuity
 -  Historical significance
 -  Historical interpretations
- 3.4 Teaching with sources
- 3.5 Teaching Controversial topics in history

Unit 4. Assessment in History (13%)

- 4.1 Question paper pattern in SSC exam and its analysis
- 4.2 Revised Bloom's Taxonomy w.r.t. History
- 4.3 Preparing different types of questions in History (with reference to Goa Board)
- 4.4 History question papers of different Boards (Goa, CBSE, Maharashtra)
- 4.5 Diagnostic testing and remedial measures

Unit 5. Professional development of history teacher (14%)

- 5.1 Special characteristics of a good history teacher
- 5.2 Knowing your beliefs, attitude and values of teaching history: Need and means
- 5.3 Self assessment as a history teacher: Need and means
- 5.4 Assessment by students: Need, procedures, and difficulties
- 5.5 Developing best practices in teaching history using action research.

5.6 Association of history teachers: need of such association, working of history association

Unit 6: Content-cum-Pedagogy in History from CBSE textbooks (23%)

(For each standard, the discussion would be around the structure of the books, the suggested use of books in teaching and suggested evaluation procedure and developing teaching strategy)

1. From Class VI
 - i. In the Earliest Cities
 - ii. The Emperor who gave up war
 - iii. Understanding Diversities
 - iv. Panchayati Raj
2. From Class VII
 - i. The Delhi Sultans
 - ii. Tribes, Nomads and Settled Communities
 - iii. Role of Government in health
 - iv. Understanding Media
3. From class VIII
 - i. From Trade to Territory
 - ii. Understanding Secularism
4. From Class IX
 - i. Forest Society and colonialism
 - ii. What is Democracy?

Suggested activities/assignments/projects in History

1. Preparation of Unit portfolio in any unit in history
2. Production of at least 5 power point presentations and slides.
3. Content analysis of a history textbook to identify points that can be utilized for developing the feeling of nationalism/national integration/international understanding.
4. Designing Teaching strategy in one unit/topic
5. Content analysis of VI/VII grade syllabus with a view to analyze and report the various principles/methods/approaches that have been adopted for organizing the syllabus under study.
6. Selection and documentation of 5 history sources and writing instructional objectives that would be achieved by each of these sources along with the teaching strategy that would be adopted to achieve them.
7. Chalk-out 2 projects that the student teacher would like to give to his students writing clearly in behavioural terms the instructional objectives that would be achieved through the given project.
8. Prepare time lines of two rulers and their achievements.
9. Comparing question papers of different boards.
10. Collecting students' feedback on teachers teaching during internship

References

1. Hyden, Tarry., Arthur, James and Hunt, Martin.(2001) Learning to teach history in the secondary school (2nd ed.) London, Routledge.
2. Phillips, Rob (2002) Reflective Teaching of History 11-18,London, Continuum.
3. Phillips, Ian (2008) Teaching History: Developing as a Reflective Secondary Teacher, London, Sage.
4. Kochhar, S. K. (2005) Teaching of History, New Delhi, Sterling
5. National Curriculum Framework 2005
6. George, Alex M and Madan Amman (2009) Teaching Social Science in Schools: NCERT'S New Textbook Initiative, New Delhi, Sage.
7. IGNOU: Teaching of Social Studies (ES-343: Block 1, 2 and 4)

EDU 07-08: METHODOLOGY OF TEACHING GEOGRAPHY

Objectives:

- To develop an understanding and reveal importance of Geography.
- To have an overview and integrate the knowledge drawn from various sources History, Geography, Environment, Science and Mathematics.
- To acquire knowledge and develop understanding about the various pedagogical principles involved in teaching of Geography.
- To utilize community resources and educational inputs.
- To equip pupils with the evaluation skills.
- To develop the skills of using different tools in Teaching of Geography
- To develop the skill and attitude necessary to make pupils appreciate the natural environment in which they live
- To explain various associated concepts of geography in the context of human beings interaction with them.
- To develop an understanding of major Physical divisions, types of climate and different natural vegetation's of India.
- To develop an understanding of totality of environment and environmental degradation.
- To develop an understanding of geography of India and Goa.

Unit 1: Geography and its Fundamental Considerations (15%)

- 1.1 The Meaning and definitions of Geography.
- 1.2 Nature of Geography.
- 1.3 Contributors of Geography
- 1.4 Place of local Geography in Teaching.
- 1.5 Geography as a basic discipline, its importance in day today life.

Unit 2: Learner Centered Approaches in Teaching Geography (20%)

- 2.1 Correlation method (History, Science and Math's)
- 2.2 Regional method
- 2.3 Problem solving Method
- 2.4 Project method
- 2.5 Excursion
- 2.6 Concept Attainment Model

Unit 3: Planning and Transactional Strategies (20%)

- 3.1 Preparation of lesson plan, unit plan, year plan.
- 3.2 Teaching aids (Projected and Non projected)
- 3.3 Geography room
- 3.4 Qualities and qualification of a geography teacher
- 3.5 Geography Exhibition
- 3.6 Use of community Resources

Unit 4: Tools of Teaching Geography (10%)

- 4.1 Concept of Map
- 4.2 Scales, Symbols and Direction
- 4.3 Concepts of Latitudes and Longitudes
- 4.4 Importance of equator and prime meridian
- 4.5 Types of Maps and their uses
- 4.6 Concept of Globe and uses of a Globe

Unit 5: Evaluation (15%)

- 5.1 Content analysis
- 5.2 Writing instructional objectives in behavioral terms
- 5.3 Preparing a blue print
- 5.4 Setting a good question paper.
- 5.5 Tools of evaluation in Geography

Unit 6: Natural Environment (10%)

- 6.1 Environment and natural environment
- 6.2 Lithosphere, Hydrosphere, Atmosphere and Biosphere
- 6.3 Totality of environment
- 6.4 Environmental degradation

Unit 7: Geography of India and Goa (10%)

- 7.1 Major physical divisions of India
- 7.2 Major types of climate of India
- 7.3 Natural vegetation of India, types and its conservation
- 7.4 Physical and political divisions of Goa
- 7.5 Resources and occupation of Goa

References:

- Aggarwal (2008): *Teaching of Social studies: A Practical Approach (4th Edition)*, Vikas Publishing House Pvt Ltd. New Delhi.
- *General Geography*, NCERT New Delhi
- Kunal A.K.(1983): *Why and How of Geography Teaching*, Ambani Publication Srinagar, New Delhi
- Machel (2008): *Teaching of Geography*, Oxford University Press, Bombay
- Norman Graves (1972): *New Moments in the Study and Teaching of Geography*, Mawerice Temple Sunith Ltd. Australia.
- Rao, M.S. (1993): *Teaching of Geography*, Anmol publications, New Delhi.
- Siddiqui M.H. (2009): *Teaching of Geography*, APH Publishing Corporation, New Delhi
- Srivastva, H.S. & Menon Kamala (1989): *Handbook of Evaluation in Geography*, Sterling Publishers, New Delhi.
- S.K.Kochar: *The Teaching of Social Studies*.
- Source book for teaching of Geography, Unesco Publications.
- Verma O.P. & Vedanayagam (1988): *Geography Teaching*, Sterling Publishers, New Delhi.
- Pal, Saroj K (1998): *Physical geography of India*, Orient Longman Ltd, Calcutta
- Dasgupta A & Kapoor A. N. (1993) : *Principles of physical geography*, S Chand & company Ltd., New Delhi.

WORKING WITH THE COMMUNITY

Working with the community projects will be based on Experiential learning- Gandhiji's Nai Talim

Suggested activities for Community Work

- Case study of School on Community engagement
- Case study on happiness, pleasure and violence in school/classrooms.
- Documentation of best practice pertaining to community engagement in school activities
- Case studies on Village level workers and their engagement in Educational and Health matters.
- Case studies of roles and responsibilities of Teachers and Headmasters for Community and parents' engagement in school matters.
- Establishing village education interest Groups/Committees and Taking help of Self Help Groups in Education
- Community service, Cleanliness in public places
- Community service, survey on literacy and out of school children
- Study on practice of Art, Craft, Drama, Music and Theatre in Schools.
- Waste mapping, Cleanliness Drives and composting
- Nursery Raising and Kitchen Gardening
- Water and Sanitation Facility Management
- Mentoring and Facilitation