

SEMESTER – III

Methodology of teaching language - II

Course No. 301

Title: Teaching of English

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to :

- Know and understand the history & importance of Language as a second Language
- know and understand the aspects of Language & the theoretical knowledge of the different structures of the Language.
- develop the professional competencies regarding the different aspects of language.
- know and understand the different skills of teaching English in classrooms.

UNIT - I

Conventional Teaching Aids

Meaning and importance of audio-visuals aids in teaching English viz. Chalk-board, models, charts, audio tapes, video tapes, television, Preparation of low cost teaching English at various levels. Use of the Literary clubs (language skills), School magazines (writing Skills) and Debates (Speaking & Listening Skill). Enactment of the activities in the classroom. How to teach Parts of Speech (through the use of low teaching aids and the Graphic Organiser).

UNIT - II

Technological Interventions in teaching learning of Language

Computer Aided Language Learning; Computer Aided Language Teaching; Use of Multimedia in Teaching English Using WEB 2.0 for enhancing learning of English through Social Networks like Live Mocha, Suggestopaedia,; Teaching of English in Smart classrooms (development of lessons – Issues) use of Language Lab in honing skills of Listening & speaking by using the Scaffolding Instructional method.

Writing own Blog in English (500 words) on any two themes.

UNIT - III

Development of the Teaching Material

Development of Literacy Appreciation and Vocabulary Enrichment in English by writing short stories, letters (formal & Informal) critical analysis of the Prose Chapter in the prescribed text books (VI to IX Classes) on the basis (language, content, Relevancy and value) Assessing use

of Narration and Voice aspects of grammar in the language (prose/composition).

UNIT - IV

Language Assessment

Concept of Evaluation-Continuous and Comprehensive Evaluation (CCE)

English Language Teaching (ELT), Review of Existing Tests, Examination Patterns: Construction of Long essay type/Short Answer Type and Objective Based Test Items in English on language basis and on the prescribed text books in the Schools and the comparison. Diagnosis of Learning Difficulties and Remedial Measures. Developing the curriculum of teaching of English as a second Language.

Sessional work

Use of educational technology in teaching English study skills – Gathering, Storage and Retrieval - their importance and use in language learning, Language Clubs (Functions, developing & devising short individualized programs to test and play the skills in Language (piece of writing on great contributors of the society, literature etc.; a short characterization, any other innovative devised program) skills through Recording, Restructuring Editing etc., Suggestopaedia. Be a member of Live Mocha & interact.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching language - II

Course No. 301

Title: Teaching of Punjabi

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :**To enable the pupil teachers to :**

- hone the skill of Lesson Planning at the Secondary level.
- understand and organize co-curricular activities for teaching of Punjabi.
- get acquainted with the methods of teaching Punjabi.
- develop the skills of preparing and using effectively the instructional materials for the teaching of Punjabi.
- get acquainted with Principles of preparing Curriculum for Punjabi.
- develop diagnostic and remedial measures through Evaluation in teaching Punjabi.

CONTENT**Unit - I**

Lesson Planning : Meaning and importance of lesson Planning at Secondary level Meaning and purpose of Unit and Monthly Plans.

Preparation of Lesson plans for teaching prose and poetry at the secondary level.

Steps for preparing lesson plans for teaching Punjabi using Herbartian & RCEM approaches, Advantages and limitations of these approaches.

Unit - II

Methods of Teaching Meaning Types, Kindergarten Method, Lecture Method, Question Answer Method, Project method, and Inductive and Deductive method.

Teaching of Composition: Meaning, Definition & Kinds, Need and Importance of written Composition, Methods of Teaching Composition.

Meaning and Importance of Teaching Aids in Teaching Punjabi viz Chalk Boards models, Charts, Television, Audio Tapes, Video Tapes, Computers and language laboratory.

Unit - III

Curriculum : Meaning, importance and Principles of preparing good Punjabi curriculum at Secondary Level.

Text Books : Meaning and importance of Punjabi Text Book, Qualities of a good text book in the subject of Punjabi.

Co-Curricular activities: Meaning, Importance of co-curricular activities for teaching Punjabi through Literary clubs, debates, Dramatics, Quizzes, school magazines.

Unit - IV

Concept of Evaluation Meaning and types of Evaluation, Importance of Evaluation.

Review of existing tools of Evaluating different skills of Punjabi Language: Construction of Long Essay Type/ Short Answer Type Test and Objective based test items in Punjabi Language

Diagnosis of Learning difficulties and remedial measures.

Sessional Work : (*Any two of the following.*)

1. Preparation of a Unit Plan for teaching Punjabi.
2. Preparation of a Lesson Plan for teaching Punjabi.
3. Preparation of Blue print in Punjabi for any class.
4. Development of Teacher made Achievement test in Punjabi for any one class.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

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Methodology of teaching language - II

Course No. 301

Title: Teaching of Urdu

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to:

- hone the skill of Lesson Planning at the Secondary level.
- understand and organize co-curricular activities for teaching of Urdu.
- get acquainted with the methods of teaching Urdu.
- develop the skills of preparing and using effectively the instructional materials for the teaching of Urdu.
- get acquainted with Principles of preparing Curriculum for Urdu.
- develop diagnostic and remedial measures through Evaluation in teaching Urdu.

CONTENT

Unit - I

Lesson Planning : Meaning and importance of lesson Planning at Secondary level Meaning and purpose of Unit and Monthly Plans.

Preparation of Lesson plans for teaching prose and poetry at the secondary level.

Steps for preparing lesson plans for teaching Urdu using Herbartian & RCEM approaches, Advantages and limitations of these approaches.

Unit - II

Meaning and importance of Teaching Aids in Teaching Urdu viz Chalk Boards models, Charts, Television, Audio Tapes, Video Tapes, Computers and language laboratory.

Preparation of low cost teaching aids at various levels. How to teach Parts of Speech (Through low cost teaching Aids and Graphic Organiser).

Methods of Teaching Meaning Types, Lecture method. Question method, Project method, Communicative, Discussion method, Mushaira and Inductive and Deductive method.

A brief history of Urdu literature, various forms of Urdu literature dabistans of Lucknow and Delhi.

Unit - III

Curriculum : Meaning, importance and Principles of preparing good Urdu curriculum at Secondary Level.

Text Books : Meaning and importance of Urdu Text Book, Qualities of a good text book in the subject of Urdu.

Co-Curricular activities: Meaning, Importance of co-curricular activities for teaching Urdu through Literary clubs, debates, Dramatics, Quizzes, school magazines.

Unit - IV

Concept of Evaluation Meaning and types of Evaluation, Importance of Evaluation.

Review of existing test Examination Patterns: Construction of Long Essay type/ Short Answer type and Objective based test items in Urdu Language.

Diagnosis of Learning difficulties and remedial measures.

Sessional Work : (Any two of the following.)

1. Preparation of a Unit Plan for teaching Urdu.
2. Preparation of a Lesson Plan for teaching Urdu.
3. Preparation of Blue print in Urdu for any class.
4. Development of Teacher made Achievement test in Urdu for any one class.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching language - II

Course No. : 301(Theory)

Title : Teaching in Hindi

Credit : 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam.: 3 Hrs.

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उद्देश्य –

हिन्दी शिक्षण के लिए सम्बन्धी योग्यताओं का विकास करना ।

भावी शिक्षकों में हिन्दी भाषा शिक्षण की कुशलताओं का विकास करना ।

आधुनिक शिक्षण विधियों के उचित प्रयोग के बारे में भावी शिक्षकों को परिचित करवाना ।

हिन्दी शिक्षण में सहायक सामग्री के निर्माण और प्रयोग की योग्यता का विकास करना ।

भावी शिक्षकों में मूल्यांकन क्षमता का विकास करना ।

प्रथम इकाई

पाठ्यक्रम तथा पाठ्य सहगामी क्रियाएं

- पाठ्यक्रम – अर्थ, महत्व एवं आदर्श हिन्दी पाठ्यक्रम निर्माण के सिद्धान्त ।
- पाठ्यपुस्तक – अर्थ तथा महत्व / हिन्दी भाषा की पाठ्यपुस्तक की विशेषताएं ।
- पाठ्यसहगामी क्रियाएं – अर्थ तथा हिन्दी शिक्षण में विद्यालय पत्रिका, नाटक एवं साहित्यिक क्लब का महत्व ।

द्वितीय ईकाई

शिक्षण पद्धति एवं सामग्री

- शिक्षण पद्धति — अर्थ तथा भेद । व्याख्यान, प्रश्नोत्तरी, प्रोजेक्ट एवं विचार — विमर्श, आगमन तथा निगमन विधि ।
- शिक्षण सामग्री— अर्थ, महत्त्व तथा भेद
- हिन्दी शिक्षण में चाक बोर्ड, मॉडल, टेलीविजन चाट आडियो टेप, कम्प्यूटर ई—मेल, पी0टी0टी विडियो कान्फरोन्सिंग तथा भाषा प्रयोगशाला का महत्त्व ।

तृतीय ईकाई

पाठ — योजना

- पाठ योजना — अर्थ तथा महत्त्व / ईकाई / मासिक तथा वार्षिक पाठ—योजना का लक्ष्य ।
- कविता, कहानी, निबन्ध व नाटक की पाठ—योजनाओं के सोपान तथा उद्देश्य ।
- हरबर्ट तथा आर० सी० इ० एक० उपागमों के पदों का हिन्दी शिक्षण में प्रयोग / इन उपागमों के गुण तथा सीमाएं ।

चतुर्थ ईकाई

हिन्दी भाषा शिक्षण में मूल्यांकन

- मूल्यांकन — अर्थ, प्रकार (रचनात्मक, समकलित, मौखिक तथा लिखित) तथा महत्त्व ।
- मूल्यांकन प्रविधियाँ— अर्थ, भेद (निबन्धत्मक तथा वस्तुनिष्ठ), महत्त्व तथा उपयोग / सभी प्रकार के प्रश्नों का अभ्यास ।
- भाषिक कौशलों को जाँचने के मौखिक तथा लिखित प्रश्नों के स्वरूप तथा अभ्यास ।
- भाषा के मूल्यांकन के प्रश्नपत्रों का स्वरूप तथा निर्माण के सिद्धान्त, विषय—वस्तु, अर्थ ग्रहण तथा भाषाभिव्यक्ति कुशलता ।

सत्रीय कार्य

- रेडियो स्टेशन तथा एफ० एम० स्टेशन का भ्रमण
- वाद—विवाद प्रतियोगिता

I gk; d i t r d l p h] ^f g l n h H k k' k f' k {k. k} ** ^V o l h Q k L V Z l p j h i f c y d s k u l] i f v ; k y k A
 c j k M + l o z t h r d k s] ^f g l n h v e ; k i u *] d Y ; k . k h i f c y d s k u l] n g y h A
 [k l u k T ; k f r] ^f g l n h f' k {k. k} / k u i r j k ; , 0 M + l U t] n g y h A
 x k s y , 0 d o] ^f g l n h f' k {k. k} g j h ' k i z d k ' k . k e f l n j] v k x j k A
 e D d M + u f j l n] ^f g l n h f' k {k. k} x y u k t + i f c y d s k u l] t k y U / k j A

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Methodology of teaching subject-II

Course No. 302

Title : Teaching of Social Science

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to :

- Develop a broad understanding of social science.
- Develop teaching competencies related to social science at secondary level.
- Become effective teachers in order to perform desired role as a social science teacher.
- Familiarize themselves with the type of audio-visual aids and acquire the ability to develop and use them.
- Familiarize themselves with the techniques and methods of teaching required for teaching of social science.
- Evaluate students performance.

UNIT-I

1. Nature of social sciences. Distinction between natural and social sciences. Uniqueness of disciplines vis-a-vis interdisciplinary.
2. Important social and economic issues and concerns of the present day Indian society.
3. Role of school in teaching of social sciences. Professional qualities and professional growth of a social science teacher.

UNIT-II

1. Audio-visual aids: Meaning, importance, types and use of following A-V aids for teaching of social science :
 - Chalkboard
 - Atlas
 - Maps
 - Globe
 - Charts
 - Models
 - Graphs and visuals
 - Multimedia
 - Internet
 - Scrapbooks
2. Role and organization of the following in the teaching of social science :
 - Field trips
 - Social science clubs
 - Self study learning activities
 - Analysis of news (newspaper, TV, radio)
3. Techniques of teaching :
 - Lecture method.
 - Discussion method.
 - Project method.
 - Story telling method
 - Problem solving method

UNIT-III

1. Evaluation: Meaning, need and objectives of evaluation in social sciences.
2. Types of evaluation-formative and summative evaluation and their salient features.

3. Evaluation tools-their relative merits and demerits.

- Oral test.
- Essay type tests.
- Objective tests.
- Diagnostic testing.

UNIT-IV

1. Social stratification and social change in India.
2. Fundamental rights.
3. Fundamental duties.
4. Structure and functions of Govt. at different levels- Distt. And local bodies (panchayats and municipalities)

Sessional Work

- Report on a visit to different local govt. bodies in their district to observe actual functioning.

Note for Paper Setters

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Methodology of teaching subject - II

Course No. 302 (Theory)

Title: Teaching of Physical Science

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to :

- Develop a broad understanding of physical science.
- Develop teaching competencies related to physical science at secondary level.
- Become effective teachers in order to perform desired role as a physical science teacher.
- Familiarize themselves with the type of audio visual aids, techniques and methods of teaching required for teaching of physical science.
- Evaluate students performance and provide remedial teaching.

Unit I

Concept of physical science. Physical science and society (Physical science for health, and physical science for environment).

Contribution of some eminent scientists (Issac Newton, John Dalton, Eienstein, Bohr and C.V. Raman).

Role of school. Professional qualities and professional growth of a physical science teacher.

Unit II

Audio-Visual Aids: Meaning, importance, types and use of audio - visual aids for teaching of physical science.

Role and organization of the following in teaching of physical science - field trips, science clubs, science museum, science fairs, physical science lab and preparation of low cost teaching aids in teaching of physical science.

Techniques of teaching: lecture cum demonstration method, project method, problem solving method, inductive deductive method and heuristic method.

Unit III

Evaluation: meaning and purpose of evaluation.

Types of evaluation –Formative and summative evaluation.

Evaluation tools - Diagnostic testing and remedial teaching, oral tests, quizzes, essay type tests and objective type tests.

Unit IV

Reflection : Reflection of light at curved surfaces, images formed by spherical mirrors.

Refraction : laws of refraction, refractive index, refraction of light through a prism, dispersion and scattering of light.

Metals and non metals: Physical and chemical properties, difference between metals and non metals, corrosion and prevention of corrosion.

Sessional work

Report on a visit to area of natural calamity/ science museum /science fair.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

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The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching subject - II

Course No. 302

Title: Teaching of Biological Science

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to :

- Develop a broad understanding of biological science.
- Develop teaching competencies related to biological science at secondary level.
- Become effective teachers in order to perform desired role as a biological science teacher.
- Familiarize themselves with the type of audio visual aids, techniques and methods of teaching required for teaching of biological science.
- Evaluate students performance and provide remedial teaching.

Unit I

Concept of biological science. Biological science and society (Biological science for health and biological science for environment).

Contribution of some eminent scientists (Aristotle, Robert Hooke, Gregor Johann Mendel, Charles Darwin and William Kerby).

Role of school. Professional qualities and professional growth of a biological science teacher.

Unit II

Audio-Visual Aids: Meaning, importance, types and use of audio - visual aids for teaching of biological science.

Role and organization of the following in teaching of biological science - field trips, science clubs, science museum, science fairs, biological science lab and preparation of low cost teaching aids in teaching of biological science.

Techniques of teaching: Lecture cum demonstration method, project method, problem solving method, inductive deductive method and heuristic method.

Unit III

Evaluation: meaning and purpose of evaluation.

Types of evaluation - Formative and summative evaluation.

Evaluation tools - Diagnostic testing and remedial teaching, oral tests, quizzes, essay type tests and objective type tests.

Unit IV

Tissues: Types and functions of plant and animal tissue.

Organ system: A brief outline of the different organ systems in plants and animals.

Life processes: Basic concept of nutrition, respiration, transportation and excretion in plants and animals.

Sessional work:

Report on a visit to a biological park/ herbarium/ museum/ preparation of a scrap book.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching subject - II

Course No. 302

Title : Teaching in Commerce

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Objectives :

To enable the pupil teachers to :

- Develop a broad understanding of commerce.
- Develop teaching competencies related to commerce at secondary level.
- Become effective teachers in order to perform desired role as commerce teacher
- Familiarize themselves with the type of audio visual aids, techniques and methods of teaching required for teaching of commerce.
- Evaluate students performance and provide remedial teaching.

Unit I

Relevance of commerce to industry and trade.

Business ethics and constraints in imparting commerce education.

Role of school towards commerce education. Professional qualities and professional growth of a commerce teacher.

Unit II

Audio-Visual Aids: Meaning, importance, selection and use of audio- visual aids for teaching of commerce.

Role and organization of the following in teaching of commerce - field trips, commerce clubs, commerce lab and preparation of low cost teaching aids in teaching of commerce.

Techniques of teaching : lecture cum demonstration method, project method, problem solving method, inductive deductive method and market studies.

Unit III

Evaluation: meaning and purpose of evaluation.

Types of evaluation - Formative and summative evaluation.

Evaluation tools - Diagnostic testing and remedial teaching, oral tests, quizzes, essay type tests and objective type tests.

Unit IV

Commercial organization: sole trade, HUF, partnership, companies.

Role of financial institutions: RBI and commercial banks.

Introduction to privatization, liberalization and globalization, WTO.

Sessional work :

Analysis of a unit / chapter in a commerce text book.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching subject - II

Course No. 302

Title: Teaching of Computer Education

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil teachers to :

- study and understand the resources for teaching Computer Science.
- study and understand the skills in teaching of the computer skills to the students teachers for programming and Networking.
- study and understand the skill in organizing extended curricular activities in Computer Science.
- study and understand the skill in preparing special programs for gifted and slow learners develop the skill in critical analysis of the text books and question papers of secondary school Computer Science.

UNIT I

Elements of Computer Working /Programming

Algorithm, flowchart, elements of 'C' programming with simple illustrations.; Elements of database and its applications, Introduction to cloud computing, Network of Computers:

Network, Types of network, Categories of network. Working Principle – Types – LAN – Wi-Fi – Uses; E-mail – Meaning & its working. The Project Method and the Demonstration method - the elements, the merits and the demerits.

Use of the methods for teaching the Elements of the Computer working.

Unit II

Resources for teaching Computer Science:

Text Books – Qualities of good computer science text book Use of text book role of text book in teaching computer science Criteria for evaluation of computer science text book. Computer Science Library – Meaning, organization and importance. Computer Science Lab – Need for planning the computer laboratory special features of computer laboratory . Essential infrastructure – laboratory management & maintenance of records.

Unit III

Use of Different Activities in & Out of Lab :

Computer Science Club - Meaning, Objectives, Organization, activities & importance; Computer Science Quiz, Computer Science Exhibition, Science Fair, Computer Visit - Meaning, Objectives - Organization & Importance; Quality Improvement: Programs for Quality improvement in teaching Computer Science; Role of Seminars, Workshops and Projects in Quality Improvement; Professional Competencies of Computer Science Teacher. Netiquettes.

Unit IV

Evaluation Techniques in Computer Science

Concept of unit test, construction of unit test, weight ages to the components of unit test, designing three dimensional chart/blue print, construction of items, format of unit test Question paper, IOTAQB – meaning, development and importance; E-evaluation – meaning and procedure.

Sessional work

Preparation of branched program material consisting of twenty frames in Computer Science; Preparation of mathematics program material consisting of twenty frames in Computer Science; Multimedia presentation (Minimum of 20 slides); Preparation of a Lesson using computer Assisted Instruction (CAI).

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the

internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Methodology of teaching subject - II

Course No. 302

Title: Teaching of Mathematics

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Objectives :

To enable the pupil- teachers to :

- study and understand the different teaching aids in the Teaching of Mathematics.
- study and understand the different techniques for the evaluation of the students of Mathematics.
- study and Evaluate the Student's Performance in Mathematics through the use of the scientific tools.

UNIT I

Mathematics and Teaching Aids

Text book, Teacher Hand book, Assignment Book, Mathematics Magazine, Mathematics Laboratory,

Audio-visual Aids, etc. Use of Computer in Mathematics Teaching as CAL and CAI, Preparation of Power Point Presentations for mathematics teaching. Evaluation of Text books of Mathematics prescribed by the J&K and CBSE Boards on the parameters of the Content and the level of Explanation for the specific class. The statistics - central tendency (Mean Median & Mode; Bar Graph and Histogram, frequency polygon). The Use of Computer is to be made in tabulating the data and calculation through the spreadsheet on Computer.

UNIT II

Evaluation / Assessment Techniques

Diagnosis of Learning Difficulties and Remedial Measures; Backwardness in Mathematics - Enrichment Programmes for the Gifted; Different Types of Tests used for evaluation for the different groups in Mathematics; Concept & use Continuous & Comprehensive Evaluation (CCE) in Mathematics, Construction of Objective Based Test Items in Mathematics on a particular topic studied and taught (sem I & II) is to be used for preparing the Objective Type and Essay type test on the real basis.

UNIT III

Construction and use of diagnostic test in mathematics – steps; preparation of diagnostic chart (error analysis table), identification of difficulties and remedial teaching Portfolio assessment and performance assessment in mathematics.

Prepare an Achievement test of Mathematics with Blue print for different topic of Mathematics for any grade.

Prepare any one self-made teaching aid for teaching of Mathematics in secondary school. (for teaching Geometry and the Arithmetic on the innovative basis of the above said topics on 2D, 3D Model, GeoBoard).

Prepare a collection of problems in your Mathematics club and published it in as a part of Mathematics Magazine which is to be developed on the Semester Basis.

UNIT IV

Lesson planning :

Meaning and importance of lesson plans at macro level, meaning and purpose of unit and monthly plans. Steps for preparing lesson plans for teaching mathematics using Herbartian and RCEM approaches.

The topics of Triangle, Criteria for Similarity (theorem of BPT) and Theorem of Pythagoras. Advantages and limitations of these approaches. HCF, LCM.

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

Course No. 303

Title: Environment Education & Disaster Management

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

OBJECTIVES :

To enable the pupil- teachers to :

- understand the need of environmental Education.
- develop a sense of Awareness about the environmental pollution and possible hazards and its causes and remedies.
- know various ways and means to create healthy environment.
- acquire knowledge about disaster management.

Unit-I

1. Meaning, need and scope of environmental education.
2. Objectives of environmental education at primary and secondary level.
3. Types of pollution – sources, effects and control of pollutions.
4. Evolution and Development of environmental education.

Unit-II

1. Environmental Hazards – causes, effects and its remedies.
2. Acid rains ozone depletion, impact of deforestation and global warming.
3. Population and Ecosystem concepts of ecosystem, components of ecosystem - Abiotic and Biotic.

Unit-III

1. Biodiversity, conservation of Genetic diversity.
2. Learning to live in harmony with nature.
3. Miscellaneous Environmental issues:
 - a) Forest and conservations,
 - b) Wild life and its conservation.

Unit-IV

Disaster Management : Disaster- Natural and man made: strategies to tackle disaster: Timed and untimed disasters: Role of teachers in the disaster management: the schools and

community participation.

Disaster Management and its outcome on education:

Students and their fallout of disaster on education : how to rebuild the educational program and role of management in overcoming the disaster to the system of education – role of students and teachers collaborations, the community supports.

Sessional work

- Work on a project related to any issue of environmental preservation and protection.
- Prepare a scrap file on environmental issues.
- Celebration of various days in relation with environment.
- Tree plantation drive

Note for Paper Setters

The Question paper consists of 9 questions having Q no 1 as Compulsory having four parts spread over the entire Syllabus, with a weightage of 12 marks. The rest of Question paper is divided into four Units and the students are to attend four Questions from these units with the internal choice. The essay type Question carries 12 marks each. Unit IV having the sessional work/field work (section) could also be a part of the theory paper.

Internship/field work Unit IV having the components/activities of the internship are to be developed in the form of the Reflective Journal. All the activities under the internship are to be evaluated for credits and hence all the activities are to be showcased by the trainee and are to be fully recorded with the complete certification of its genuineness.

The Theory paper is to have 60 marks (external). 40 Marks are for the In House activities.

SEMESTER – IV

Course No. 401 (Theory)

Title: Teacher Education

Credits 4

Total Marks : 100

Maximum Marks Internal : 40

Maximum Marks External : 60

Duration of Exam : 3 hrs

Course Objectives :

To enable the student-teachers to :

- develop an understanding about teacher education
- know about pre-service and in-service teacher training agencies
- know and apply various instructional techniques
- appreciate the process of research in teacher education