

# **The University of Burdwan**

## **Syllabus for The Bachelor of Education**

### **(Teacher Training)**

### **with effect from 2008-2009**

#### **THE UNIVERSITY OF BURDWAN**

#### **NEW REGULATIONS AND SYLLABUS FOR**

#### **THE BACHELOR OF EDUCATION (B ED) COURSE**

#### **(W.e.f. 2008-09 onwards)**

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#### **1. Objectives of revision :**

(i) To restructure and update the course (ii) to include new thrust areas in the course; (iii) to make the course more professional and practical; (iv) to streamline the course to bring about more effective integration of different areas of knowledge essential for the future teachers; and (v) to develop in teachers the necessary skills in teaching performance , competencies and commitments as prescribed by the National Council for Teacher Education.

#### **2. Duration of the course :**

The course will spread over one full calendar year, which includes the annual examination. The session would commence on and from 1<sup>st</sup> July every year and will continue up to 30<sup>th</sup> June of the next calendar year. The total no. of Teaching Days including Practice Teaching but excluding Admission and Examination be not less than 180.

#### **3. Eligibility for admission:**

Candidate must be a graduate/postgraduate (i) in a subject taught in the secondary schools of the state or (ii) in subjects offered as method subject in any teacher's training college under this University.

#### **4. Course Structure:**

<b>A. Four General Papers - (I, II, III, IV)</b>	<b>100 marks each</b>	<b>400 marks</b>
<b>B - Two Method Papers</b>	<b>100 marks each (Paper V / VI)</b>	<b>200 marks</b>
<b>C - Elective Compulsory (Paper VII)</b>		<b>100 marks</b>
<b>D - Sessional Activities (Paper VIII)</b>		<b>100 marks</b>
<b>E - Practice teaching (on two method papers) (Paper IX / X)</b>		<b>200 marks</b>

(i) Lab Based (80 marks for each method subject +20 marks for lab practical for each method subject)

(ii) Non-Lab Based (100 marks each)

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**Total-- 1000 marks**

## 5. Course Details :

5.1. The course will comprise of four compulsory papers (foundation course) ,each divided into two halves of 50 marks each ; as detailed below:

4x100marks

Paper – I: Philosophical & Sociological Foundations of Education.

First Half : Philosophical Foundations of Education

Second Half : Sociological Foundations of Education

Paper – II: Development of Education in India

First Half : Historical Foundations of Education.

Second Half : Recent Development and Current issues .

Paper – III: Psychology of Learning and Instruction

First Half : Psychological Bases of Learning

Second Half : Psychological Bases of Instruction.

Paper – IV: Essentials of Educational Technology and Management

First Half : Elements of Educational Management

Second Half : Elements of Educational Technology

5.2. Papers V&VI : Pedagogical Study of School Subjects ( Method papers) :

2x100 Marks

Every student teacher has to select two method subjects from the list mentioned below, of which one *must be the major subject studied at the UG/PG level or subsidiary / elective at the UG level.*

### Method Subjects:

1. **Language:** Bengali/English/Hindi/Sanskrit.
2. **Social Science & Commerce:** History/Geography/Economics/Pol.Science / Philosophy/Education/Commerce.
3. **Science:** Physical Science/Life Sciences/Mathematics.
4. **Other Subjects:** Art Edn./Music Edn./Work Edn./ Physical Edn.

5.3. Paper – VII : Compulsory Elective Paper:

1x100 marks

Criteria for considering Elective subjects.

1. All elective subjects should be more or less equal in difficulty levels of contents.
2. In all the subjects latest development of relevant concepts have been incorporated.
3. All elective subjects must be contributing additional concepts for delivering good lessons .

### **ELECTIVE SUBJECTS:**

- 1.Educational Measurement and Evaluation (EME)
- 2.Guidance and Counselling (GC)
- 3.Alternative Education (AE)

<b>5.4. <u>Paper-VIII: Sessional activities related to Teaching</u></b>	<b>100 marks</b>
<b>1. Tutorial on four General papers only (At least 5 marks in each paper)</b>	<b>20marks</b>
<b>2. Test Marks obtained in Test Exam. for General papers (Each paper 5 marks)</b>	<b>20marks</b>
<b>3. Micro teaching on two skills based on two method subjects / simulative teaching</b>	<b>(10+10) 20 marks</b>
<b>4. Administration of psychological test with interpretation ( Such as attitude test, intelligence test, etc)</b>	<b>20marks</b>
<b>5. Gardening, Cleaning of campus or Cultural activities (Debate, Symposium, Extempore)</b>	<b>10marks</b>
<b>6. Exhibition on one method paper /Excursion---Study Tour Such as Drawing, Charts, Maps, Models, Improvised apparatus etc .</b>	<b>10marks</b>

## **5.5 PEDAGOGICAL ACTIVITIES (On Two Method Subjects)**

*To fulfil the basic objectives of teacher education, the institutions of teacher education should arrange for sufficient practice in teaching skills – both in simulation and in actual classroom situation; and a student teacher must have to acquire minimum level of proficiency in teaching skills through compulsory participation in practice teaching activities. Every student teacher has to practice and acquire at least 2(two) basic skills through micro-/mini-teaching situations and to deliver at least 1(one) Demonstration in each method subject with receiving feedback from the Teacher Educator as well as Peers, before sending to practice teaching in schools. During practice each student teacher would execute at least 40 lessons in two method subjects, with no less than 10 lessons in any method subjects.*

- 5.5.1 Paper-IX &X : Teaching Practical 200 marks**
- (1). Non -Lab based student- teachers have to execute two lessons; one each from two methods consisting of 100 marks.**
  - (2) Lab-based student- teachers have to execute two lesson & one each from two methods consisting of 80 marks and each Lab-based activity will carry 20 marks.**
  - (3). Student- teachers with combined combinations (one Lab & one Non Lab) have to execute two lesson according to Lab & Non Lab rules**  
**The External and Internal Examiners (Subject Teacher and Principal) appointed by the University will jointly examine candidates in Teaching Practical .**  
**The total marks awarded to each candidate are to be submitted in a single marks list to the University with signature of both the examiners.**  
**The details of award to each candidate in a separate sheet are to be kept in record at the college concerned.**
  - (4) For Assessment of teaching practical following tasks have to be taken into account .**
    - 1. Lesson Plan**
    - 2. Voice, exposition and delivery**
    - 3. Presentation with clear objective**
    - 4. Questioning and interaction**
    - 5. Use of Teaching Aids**
    - 6. Black Board work.**
    - 7. Learner’s Participation**
    - 8. Overall performance**

## **General papers (Foundation) :**

### **Paper – I: Philosophical and Sociological Foundations of Education .**

#### **COURSE OBJECTIVES:**

To enable the student-teachers to

1. Understand the bases of Education – Philosophical, Sociological and Economical.
2. Understand the relationship between Philosophy and Education and implications of philosophy on education.
3. Understand the importance and role of education in the progress of Indian Society.
4. Understand the need to study education in a sociological perspective.
5. Understand the contribution of great educators to the field of education.
6. Understand the factors of education – Learner, Teacher, Curriculum and School.

#### **COURSE CONTENTS:**

##### **First Half: Philosophical Foundations of Education**

Unit-1. 12 classes

- Education – its meaning; aims & objectives in relation to time and place.
- Bases of Education – Philosophical, Sociological & Economical
- Forms of Education – Formal, Non-formal & Informal.
- Child-centric education.

Unit-2. 8 classes

- Philosophy and Education: significance of studying philosophy in understanding educational practices and problems.
- Major philosophical thoughts – their salient features and impact on education
  - a) Idealism
  - b) Naturalism
  - c) Pragmatism

Unit-3. 12 classes

- Educational thinkers and their contributions in developing principles of education.
  - a) Gandhiji: Concept, Aims, Curriculum, Methods & Basic tenets of Basic education.
  - b) Swami Vivekananda: Concept, Aims, Curriculum, Methods of Man-making education.
  - c) Rabindranath: Concept, Aims, Curriculum, Methods, & Educational Experiment.
  - d) Rousseau: Concept, Aims, Curriculum, Methods of Child Centric Education.
  - e) Montessori: Concept, Aims, Curriculum, Methods, & Psychological Trend in Education.
  - f) Dewey: Concept, Aims, Curriculum, Methods, & Activity Centric Education.

Unit- 4. 8 classes

- Factors of education – Learner, Teacher, Curriculum and School
- Modern concept of Curriculum; types of curriculum – an overview.
- Construction of curriculum – elements and principles
- Critical review of secondary curriculum in West Bengal

##### **Second Half: Sociological Foundations of Education**

Unit- 5. 9 classes

- Sociological basis of education; Relationship between individual and individual & individual and society, in terms of norms given by the existing social order.
- Education as a tool of economic development.
- Education as an agent of social change.
- Education as a means of national welfare.
- Education and Human Resource development.

- Unit-6. 10 classes
- Agencies of Education – Formal and Informal; Active and Passive.
  - Formal Agencies – School – responsibility and function. Role of school in maintaining relationship with Home and Community. Parent-Teacher Association; Library and its role.
  - Informal Agencies – Home, State, Socio-cultural Organizations, Centre of Production – role and function.
  - Mass Media as an agency of education; role of mass media in expansion of education, collection of information and acculturation.
- Unit-7. 8 classes
- Population Education: concept, scope and objectives. Necessity of population education at secondary stage. Approaches to population education at the secondary stage and Life Style Education.
- Unit-8. 7 classes
- Environmental Education: concept, scope and objectives. Necessity of environmental education at secondary stage. Approaches to environmental education at the secondary stage.
- Unit-9. 8 classes
- Equality of Educational Opportunities
  - Backward Communities – causes of backwardness and their remedies.
  - Life-long Education – Open and Distance Learning.

*Total classes for teaching – 82*

*Classes required for sessional tests – 2 (for 2 class tests)*

## **Paper – II : Development of Education in India**

### **COURSE OBJECTIVES:**

To enable the student-teachers: to

1. Understand the development of education as under the Renaissance of India.
2. Understand the contribution of various major Committees and Commissions on education set up from time to time under British Rule from 1854 to 1944.
3. Understand the Educational Values as reflected through the provisions of Indian Constitution.
4. Understand the contribution of various major Committees and Commissions on Education, set up from time to time after Independence.
5. Understand National Policies on Education in India.
6. Understand Education in India under Five Year Plans.
7. Understand the salient features of the Reports of World Conferences on EFA; Sarva Siksha Abhijan / Mission – main objectives & features; Global Monitoring Report of UNESCO – salient features.
8. Understand contemporary approaches and issues in Education.
9. Understand brief overview of (a) Report of the International Education Commission for the 21<sup>st</sup> Century (UNESCO -1996); and (b) Report of the National Knowledge Commission.

### **COURSE CONTENTS:**

First Half: Historical Foundations of Education

- Unit- 1. 12 classes
- Renaissance in India and Education: Rammohan, Young Bengal and Vidyasagar.
  - Brief review of development of Education under British rule(**(Specifically)**: Woods Despatch; Hunter Commission; Curzon Policy; Hartog Committee, Sadler Commission & Sargent Report (only major recommendations).
- Unit- 2. 6 classes
- Provisions for Education in the Constitution of Independent India.
  - Educational Values as reflected through the provisions of Indian Constitution.
- Unit- 3. 7 classes
- University Education Commission (1948-49) – Recommendations with reference to the following:
- (a) Aims of Education; (b) Structure; (c) Curriculum; (d) Examination Reform;
  - (e) Rural University; and (f) Religious, Spiritual and Moral education.
- Unit- 4. 5 classes
- Secondary Education Commission (1952-53) – Recommendations with reference to the following:
- (a) Aims of Education; (b) Structure; (c) Curriculum; (d) Examination Reform.
- Unit -5. 10 classes
- Indian Education Commission (1964-66) – Recommendations with reference to the following:
  - (a) Aims of Education; (b) Structure; (c) Curriculum; (d) Examination Reform; (e) School Complex; and (f) Work Experience.
- Second Half: Recent Developments and Current Issues.**
- Unit 6. 6 classes
- National Policy on Education 1986 (NPE 1986).
  - Revised Draft of NPE 1986.
  - Programme of Action 1992 (POA 1992).
- Unit 7. 6 classes
- Education in 10<sup>th</sup> Five Year Plan.
  - Education in 11<sup>th</sup> Five Year Plan.
- Unit 8. 8 classes
- Reports of the World Conferences on Education for All (EFA) - 1990 & 2000 – salient features.
  - Global Monitoring Report of UNESCO – salient features.
  - Sarva Siksha Abhijan /Mission (SSA/SSM) - objectives & salient features.
- Unit 9. Contemporary Approaches and Issues (to be discussed with reference to Asok Mitra Commission; Bhabatosh Datta Committee; Pabitra Sarkar Committee and Ranjugopal Mukherjee Committee in the perspective of W.B.): 16 classes
- Elementary Education – present problems and prospect.
  - Secondary Education – present problems and prospect.
  - Higher Education – present problems and prospect.
  - Women Education – present problems and prospect.
  - Teacher Education – present problems and prospect.
  - Adult & Continuing Education – present problems and prospect.
  - Distance Education – present problems and prospect.
  - Inclusive Education – present problems and prospect.

Unit 10. A brief review of the Reports of –

4 classes

- International Education Commission for the 21<sup>st</sup> Century.
- Knowledge Commission.

*Total classes for teaching – 80*

*Classes required for sessional tests – 2 (for 2 class tests)*

**Paper – III: Psychology of Learning and Instruction**

**COURSE OBJECTIVES:**

To enable the student-teachers : to

1. Understand the need and significance of the study of educational psychology.
2. Acquire knowledge and understanding of stages of human development and developmental tasks with special reference to adolescent learners.
3. Grasp the nature, extent and causes of individual difference among children.
4. Develop understanding and process of children learning in the context of various theories of learning.
5. Understand intelligence & motivation of normal and exceptional children.
6. Develop skills for effective teaching learning process and use of psychological tests.
7. Understand group process and management of maladjustment in children.
8. Understand concepts of Teaching and Instruction.
9. Understand Instructional objectives, Educational objectives,  
Taxonomy of Educational Objectives - Cognitive, Affective & Psychomotor domain.
10. Understand approaches to Instruction, Designs of Instruction, Technology-based teaching strategies.

**COURSE CONTENTS:**

**First Half: Psychological Bases of Learning**

Unit 1.

16 classes

- Educational Psychology: its meaning, nature, scope, methods and functions.
- Stages of human development.
- Adolescence – characteristics, problems; needs and aspirations in Indian context.
- Development as a basis of learning -
  - (a) Language development - implications in education;
  - (b) Cognitive development – Piaget;
  - (c) Moral development – Kohlberg;

Unit 2.

12 classes

- Nature of learning; Learning theories – Behaviorists (Skinner's); Information Processing (Rogers'); Humanistic (Maslow's), and Cognitive/Field theory(Gestalt).
- Factors influencing learning and teaching process – learner-related, teacher-related, process-related and content-related.
- Motivation – nature, types; determinants of motivation.

Unit 3.

10 classes

- Modern concept of intelligence, intelligence and creativity.
- Theories of intelligence as propounded by (a) Thurstone, and (b) Guilford.
- Measurement of intelligence – Verbal, Non-verbal and Performance tests (one group test and one individual test).

- Unit 4. 6 classes
- Individual differences – nature; aspects and significance of individual differences in the class room.
  - Exceptional children – concept, types; characteristics of (a) Sensory Impaired; (b) Gifted; and (d) Learning Disabled children – implications of different measures for their education.
- Unit 5. 6 classes
- Personality – definition and characteristics; development of personality; measurement of personality.
  - Adjustment: maladjustment in school – causes and remedies.
- Second Half: Psychological Bases of Instruction.**
- Unit 6. 10 classes
- Basic concepts of Teaching and Instruction.
  - Instructional objectives and Educational objectives.
  - Bloom's Taxonomy of Educational Objectives - Cognitive, Affective & Psychomotor domain.
- Unit 7. 8 classes
- Different approaches to Instruction, Direct and Indirect Instruction.
  - Designs of Instruction (Skinner and Gagne).
- Unit 8. 8 classes
- Technology based Teaching strategies (Web-based Instruction, Multi-media, CD-ROM, Intelligent Tutoring System).
- Unit 9. 10 classes
- Models of Teaching: necessity. Different models of teaching – Advance Organizer, Concept Attainment & Inquiry Training.
  - Constructivist approach to Teaching and Participatory Learning.

*Total classes required: 86 classes*

*Classes required for sessional tests – 2 (for 2 class tests)*

**Paper – IV : Management and Technology in Education**

**COURSE OBJECTIVES:**

1. To enable the teachers understand the concept of management in School education.
2. To develop the professional skills required for providing Leadership in School Administration.
3. To provide the student- teacher the skills for guiding different School Services.
4. To enable the teacher to understand his role in managing the classroom.
5. To enable the teacher to develop the awareness of professional ethics and accountability of the teacher.
6. To develop the concept of Control of Education by the State through different Bodies, Supervision & Inspection and Educational Finance.
1. To obtain a total perspective of the role of technologies in modern educational practices.
8. To equip the student- teacher with various technological applications available to her/him for improving instructional practices.
9. To develop the professional skills required for evaluating achievement of pupils.
2. To develop outline concept of organisation, representation and use of simple descriptive statistics for analysis of educational data.



**COURSE CONTENTS:**

**First Half: Management in Education**

Unit 1. 10 classes

- Concept of Management; Different Management Processes in the School – Planning, Organisation, Direction, Motivation and Control.
- Systems Approach in Educational Management.

Unit 2. 6 classes

- Leadership style in Management; Role of the Headmaster.
- Organisation of a Congenial School Climate; Human Relation Approach in Management.

Unit 3. 10 classes

- School Services – a) Students' Self-government & Discipline; b) Organisation of Co-curricular Activities; c) Physical Education; d) Library; e) Health Services, Sanitation and Life Style Education; f) Community Services with special reference to Literacy Drive; g) School Complex.
- Time-table and Academic Calendar.

Unit 4. 6 classes

- Teacher as the Manager of the Classroom – qualities and role.
- Professional Ethics and Accountability of the Teacher.

Unit 5. Quality Management in School Education: 8 classes

- Board/Council of Secondary/Higher Secondary Education.
- NCERT & SCERT
- NCTE
- Managing Committee/Governing Body of the School.
- Inspection and Supervision.
- Management Information System (MIS).
- Feedback & Re-planning.

**Second Half: Educational Technology & Evaluation.**

Unit 6. 6 classes

- Educational Technology – Concept and Scope.

Unit 7. Technology of Teaching 7 classes

- Group Teaching; Flander's Interaction Analysis System (FIAS).
- Individualised Instruction – Programmed Instruction and Computer Assisted Learning (CAL).

Unit 8. Communication Technology 10 classes

- Communication Technology: Concept; Different means of communication; Dale's Cone of Experience.
- Projected and Non-projected Teaching Aids and their uses.
- Use of Multi-media in Education.
- EDUSAT

Unit 9. Evaluation 8 classes

- Concept of Evaluation in Education.
- Tools and techniques of Evaluation.
- Criteria of a good Tool.
- Formative and Summative Evaluation.
- Evaluation of Scholastic and Non-scholastic Abilities – Grading Norms.

Unit 10. Statistical Techniques in Education

9 classes

- Organisation of data – Frequency Distribution Table.
- Graphical Representation of data – Frequency Polygon & Histogram.
- Measures of Central Tendency.
- Measures of Dispersion.
- Measures of Correlation (only Rank Difference Method).

*Total classes required: 80 classes*

*Classes required for sessional tests – 2 (for 2 class tests)*

**Papers V&VI : Pedagogical Study of School Subjects**

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING ENGLISH**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks

**Which includes**

- (a) Objectives of the lesson – Skill and/ or Appreciation.
- (b) Identification of the Concepts – Unit/Skills.
- (c) Specification of the behavioural outcomes for each unit/skill.
- (d) Selection of Teaching Strategies.
- (e) Selection of Teaching Aids with notes on their preparation and mode of use.
- (f) Questioning/ Tasks set for the development of language skills.
- (g) Criterion Referenced Test.

**Group B: Methodology of Teaching (50 marks)**

**Unit 3.** Aims and Objectives of Teaching English: The linguistic, Literary and Cultural Aims of Teaching

English – Language Acquisition and Language Learning; The Objectives of Teaching English as a Second Language (with special reference to West Bengal) in the Secondary and Higher Secondary stage.

**Unit 4.** Methods and Approaches of Teaching English:

- (i) Grammar Translation vs The Natural Method.
- (ii) Dr West's New Method vs Rabindranath's Method of Teaching English.
- (iii) Structural Approach vs Functional Communicative Approach.
- (a) The above mentioned methods / approaches are to be considered critically to delineate the techniques of developing -
  - (i) Reading Skill for Comprehension and Appreciation.
  - (ii) Listening Skill for Comprehension and Appreciation.
  - (iii) Speaking and Writing Skills for Communication.
  - (iv) Grammatical sense.
  - (v) Vocabulary.
  - (vi) Creative Writing.
- (b) Innovative Techniques for development of the Language Skills and Literary Appreciation.

Unit 5. Lesson Plan / Note

Page	English	Specification
12	Unit – 1 Contents of IX – X	(a) Last three lessons of Class - IX (b) First three lessons of Class –X (Under W.B.B.S.E. syllabus)
	Unit – 2 Pedagogical Analysis	To be practiced – Three lessons [One from each Class – (VI, VII & VIII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING HINDI**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks

**Which includes**

- (a) Objectives of the lesson – Skill and/ or Appreciation.
- (b) Identification of the Concepts – Unit/Skills.
- (c) Specification of the behavioural outcomes for each unit/skill.
- (d) Selection of Teaching Strategies.
- (e) Selection of Teaching Aids with notes on their preparation and mode of use.
- (f) Questioning/ Tasks set for the development of language skills.
- (g) Criterion Referenced Test.

**Group B: Methodology of Teaching (50 marks)**

Unit 3. Aims and Objectives of Teaching Hindi: The linguistic, Literary and Cultural Aims of Teaching Hindi – Language Acquisition and Language Learning; The Objectives of Teaching Hindi as a First Language (with special reference to West Bengal) in the Secondary and Higher Secondary stage.

Unit 4. Methods and Approaches of Teaching Hindi:

- (a) The methods / approaches are to be considered critically to delineate the techniques of developing -
  - (i) Reading Skill for Comprehension and Appreciation.
  - (ii) Listening Skill for Comprehension and Appreciation.
  - (iii) Speaking and Writing Skills for Communication.
  - (iv) Grammatical sense.
  - (v) Vocabulary.
  - (vi) Creative Writing.
- (b) Innovative Techniques for the development of the Language Skills and Literary Appreciation.

Unit 5. Lesson Plan \ Note

Page	Hindi	Specification
13	Unit – 1 Contents of IX – X	(a) Last three lessons of Class - IX (b) First three lessons of Class – X (Under W.B.B.S.E. syllabus)
	Unit – 2 Pedagogical Analysis	To be practiced – Three lessons [One from each Class – (VI, VII & VIII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING SANSKRIT**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class VIII under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of class VII : 30 marks

**Which includes**

- (a) Objective of the lesson – Skill and/ or Appreciation.
- (b) Identification of the Concepts – Unit/Skills.
- (c) Specification of the behavioural outcomes for each unit/skill.
- (d) Selection of Teaching Strategies.
- (e) Selection of Teaching Aids with notes on their preparation and mode of use.
- (f) Questioning/ Tasks set for the development of language skills.
- (g) Criterion Referenced Test.

**Group B: Methodology of Teaching (50 marks)**

**Unit 3.**

- Importance of Sanskrit in Indian History.
- Aims and Objectives of Teaching Sanskrit.
- Relation between Sanskrit and other Indian Languages.
- Principles of construction of syllabus in Sanskrit.

**Unit 5. A. Methods of Teaching Sanskrit:**

- (i) Traditional Method;
- (ii) Text Book Method;
- (iii) Direct Method;
- (iv) Translation Method.

**B. Approaches of Teaching Sanskrit:**

- (i) Oral Work (Pronunciation, Spelling mistake, use of Dictionary and Dialogue).
- (ii) Dramatisation.
- (iii) Use of reference books.
- (iv) Individual and group work.
- (v) Play-way Method.

**C. Aims and Methods of Teaching:**

- (i) Reading and Writing Devnagari script.
- (ii) Prose, (iii) Poetry, (iv) Grammar, (v) Composition.

**D. Cause of errors in spelling and method of correcting them.**

**Unit 6. Instructional Materials:**

- Characteristics of a good text book in Sanskrit (class VII & VIII)
- Place of Teaching Aids in Sanskrit and their proper and effective use.
- Preparation of Lesson Notes.

Page	Sanskrit	Specification
14	Unit – 1 Contents of Class – VIII	To be emphasized – contents of Class – VIII Syllabus on Sanskrit as Prescribed by the W.B. Board of Secondary Education.
	Unit – 2 Pedagogical Analysis	To be practiced – any three lessons of Class VII

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING HISTORY**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks

**Which includes**

- (a) Identification of units and sub-units.
- (b) Summarization of the essence of each unit.
- (c) Sequence and resequence the units.
- (d) Specification of instructional objectives.
- (e) Selection of Teaching Strategies.
- (f) Selection of Teaching Aids with notes on their preparation and mode of use.
- (g) Questioning with reference to specific objectives.
- (h) Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING HISTORY (50 marks)**

Unit 3.

- Objectives of Teaching History.
- Modern Conception of History
- Aims and Values of Teaching History.
- Correlation of History with other subjects.
- National integration and international understanding.
- Indian Historiography

Unit 4.

- Methods of Teaching History – Lecture; Discussion; story Telling, Question-Answer; Primary and Secondary Sources; Biographical Method; Dramatization; Workshop.
- Knowing History through – Excursion; Museum.
- History Teacher-essential qualities and training of a History teacher.

Unit 5.

- Importance, Types & Preparation of Low-cost Teaching Aids in History.
- History Room.

Unit 6.

- Principles of framing the History Syllabus.
- Criteria of a good History Text Book.

Unit 7. Preparation of Lesson Plan/Note.

Page	History	Specification
15	Unit -1 Contents of IX - X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Units [one from each Class (VI, VII & VIII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING GEOGRAPHY**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks

**Which includes**

- (a) Identification of units and sub-units.
- (b) Summarization of the essence of each unit.
- (c) Sequence and resequence the units.
- (d) Specification of instructional objectives.
- (e) Selection of Teaching Strategies.
- (f) Selection of Teaching Aids with notes on their preparation and mode of use.
- (g) Questioning with reference to specific objectives.
- (h) Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING GEOGRAPHY(50 marks)**

Unit 4.

- Aims & Objectives of Teaching Geography in schools.
- Correlation of Geography with other branches of science and social science.

Unit 5.

- Methods of Teaching Geography – Deductive; Inductive; Story telling; Observation; Local geography as a method of teaching Geography; Regional Method; Project Method; Laboratory Method; Excursion/Field Study; CAI and its application.
- Geography Room.

Unit 6.

- Principles of framing Geography Syllabus for different levels of secondary and higher secondary schools.

Unit 7. Preparation of Lesson Plan/Note.

**Conducting Laboratory Practical in Geography (25 marks in Paper IX / X)(Part of Teaching Practical)**

1. Statistical Diagrams with interpretation – Rainfall – Temperature graphs of different climatic regions of the world. (a) Cartograms – (i) Choropleth mapping – Population density by screen method; (ii) Pie-diagram – Occupational structure or Land use pattern; (iii) Bar diagram – Male-Female population/rural-urban population/production of food grains; (iv) Dot methods and interpretation - Rice & wheat. (b) Isotherms/ Isobars of India showing summer and winter temperatures/ annual rainfall with shade method and interpretation.
  3. Map Projection: (a) Conical projection with one standard parallel; (b) Cylindrical Equal area Projection; (c) Polar Zenithal Projection.
  4. Identification and classification of common rocks and classification of minerals.
  5. Field study / Local study.
  6. Laboratory Note Book and Viva-voce.
- Evaluation: Any One Activity (10); Identification and classification of common rocks (5); Field study / Local study Report (5); Laboratory Note Book and Viva-voce (5).

Page	Geography	Specification
16	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Units [one from each class (VI, VII & VIII)]
	Unit – 4 (corrected) Methods of Teaching Geography Geography Room	To be emphasized – Deductive, Inductive, Observation. Regional Method, Project Method, Laboratory Method.
		To be discussed Organization of Geography Room
	Practical Work	Practical Work on (1)* Rainfall – only Bar diagram (*) Dot – Methods and interpretation - Rice & Wheat (2) Map Projection – only (a) Conical projection.....parallel (3) Identification and Classification of common rocks (4) Field Study (5) Lab Note Book

### **PEDAGOGICAL ANALYSIS OF CONTENTS AND METHODOLOGY OF TEACHING COMMERCE**

#### **Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class XI-XII under WBCHSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes XI-XII: 30 marks

#### **Which includes**

- (a) Identification of units and sub-units.
- (b) Summarization of the essence of each unit.
- (c) Sequence and resequence the units.
- (d) Specification of instructional objectives.
- (e) Selection of Teaching Strategies.
- (f) Selection of Teaching Aids with notes on their preparation and mode of use.
- (g) Questioning with reference to specific objectives.
- (h) Criterion Referenced Test.

#### **GROUP – B: METHODS OF TEACHING COMMERCE (50 marks)**

##### **Unit 3.**

- Methodology of introducing Commerce to the Beginners in Commerce – Deductive and Inductive method.
- Different Approaches of presenting Accountancy to the Beginners in Commerce – Cash Book, Ledger, Final Account and Balance Sheet.
- Text Books of Commerce – contents, illustrations, chapterization, exercises and presentation of subject matter on psychological and scientific basis.

- Infrastructure for Commerce Education – Commerce Room – Implements, Charts, Tables, Instruments, Reference Books, Journals & Periodicals, Computers.
- Educational Tour – need – place – as a project – planning & implementation.
- Modernisation of Commerce Education – Computerisation of Book keeping & Accountancy – Hardwires & Softwares.
- Use of Modern as well as Scientific Techniques in the field of evaluation in Commerce Education – Standardization of Tests – using the concept of Bloom's Taxonomy.
- Preparation of Unit Test.
- Preparation of Lesson Plan/Note.

Page	Commerce	Specification
17	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

### PEDAGOGICAL ANALYSIS OF CONTENTS AND METHODOLOGY OF TEACHING PHILOSOPHY

#### **Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class XI-XII under WBCHSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes XI-XII: 30 marks

#### **Which includes**

- Identification of units and sub-units.
- Summarization of the essence of each unit.
- Sequence and resequence the units.
- Specification of instructional objectives.
- Selection of Teaching Strategies.
- Selection of Teaching Aids with notes on their preparation and mode of use.
- Questioning with reference to specific objectives.
- Criterion Referenced Test..

#### **GROUP – B: METHODS OF TEACHING PHILOSOPHY (50 marks)**

Unit 3.

Place of Philosophy in the world of thought and in the school curriculum.

Relation between Philosophy and other branches of knowledge.

Aims & Objectives of Teaching Philosophy in schools.

Unit 4.

Methods of Teaching Philosophy: General and particular from real life examples; Logical & Psychological Methods.

Philosophy Room.

Unit 5.

Principles of framing Philosophy Syllabus for Higher Secondary Classes.

Unit 6. Preparation of Lesson Plan/Note.



Page	Philosophy	Specification
18	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING ECONOMICS**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class XI-XII under WBCHSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes XI-XII: 30 marks

**Which includes**

- (a) Identification of units and sub-units.
- (b) Summarization of the essence of each unit.
- (c) Sequence and resequence the units.
- (d) Specification of instructional objectives.
- (e) Selection of Teaching Strategies.
- (f) Selection of Teaching Aids with notes on their preparation and mode of use.
- (g) Questioning with reference to specific objectives.
- (h) Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING ECONOMICS (50 marks)**

Unit 3.

- Place of Economics in the school curriculum.
- Relation between Economics and other school subjects.
- Aims & Objectives of Teaching Economics in schools.

Unit 4.

- Methods of Teaching Economics: Lecture; Inductive & Deductive; Discussion; Project Method; Individualized Instruction; CAI; Field Survey.
- Economics Room.

Unit 5.

- Teaching Aids: projective & non-projective.
- Evaluation.

Unit 6. Preparation of Lesson Plan/Note.

Page	Economics	Specification
19	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS**  
**POLITICAL SCIENCE**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class XI-XII under WBCHSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes XI-XII: 30 marks

**Which includes**

- (a) Identification of units and sub-units.
- (b) Summarization of the essence of each unit.
- (c) Sequence and resequence the units.
- (d) Specification of instructional objectives.
- (e) Selection of Teaching Strategies.
- (f) Selection of Teaching Aids with notes on their preparation and mode of use.
- (g) Questioning with reference to specific objectives.
- (h) Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING POLITICAL SCIENCE (50 marks)**

Unit 3.

- Place of Political Science in the school curriculum and its importance in democratic society..
- Relation between Political Science and other school subjects.
- Aims & Objectives of Teaching Political Science in schools.

Unit 4.

- Methods of Teaching Political Science: Lecture; Inductive & Deductive; Discussion;
  - Project Method; Individualized Instruction; CAI..
- POLITICAL SCIENCE Room

Unit 5.

- Teaching Aids: projective & non-projective.
- Evaluation.

Unit 6. Preparation of Lesson Plan/Note.

Page	Political Science	Specification
20	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS**  
**AND METHODOLOGY OF TEACHING EDUCATION**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class XI-XII under WBCHSE or equivalent. 20 marks

**Unit 2.** Writing Pedagogical Notes on each unit with suggestions of objectives to be covered: 30 marks

**Which includes**

- (a) Method of Teaching with exploration of alternative methods.
- (b) Teaching Aids to be utilised with notes on their preparation and mode of use.
- (c) Types of questions asked with investigating outlook and attitude.
- (d) Criterion Referenced Test.

**GROUP – B: GENERAL METHODOLOGY OF TEACHING EDUCATION (50 marks)**

Unit 3.

- Aims & Objectives of Teaching Education in schools.
- Relation between Education and other school subjects.

Unit 4.

- Methods of Teaching : General and particular from real life examples; Logical & Psychological
- Methods.
- Education Room.

Unit 5.

- Principles of framing Education Syllabus for Secondary Classes.

Unit 6. Preparation of Lesson Plan/Note.

Page	Education	Specification
21	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING WORK EDUCATION**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)****Unit 1.** Contents of the Syllabus of Class VI-X under WBBSE or equivalent. 20 marks**Unit 2.** Pedagogical Analysis: 30 marks**Which includes**

- Identification of units and sub-units.
- Summarization of the essence of each unit.
- Sequence and resequence the units.
- Specification of instructional objectives.
- Selection of Teaching Strategies.
- Selection of Teaching Aids with notes on their preparation and mode of use.
- Questioning with reference to specific objectives.
- Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING WORK EDUCATION (50 marks)**

Unit 3.

- Aims & Objectives and scope of Work Education in schools.
- Bases of Work Education – psychological, sociological, historical and economic.
- Development of concept of work experience in general education suitable for India with special reference to NPE(1986).
- Behavioural outcomes expected out of the programme of work experience.

Unit 4.

- Methods of Guiding Work Education: Discussion method; Work Study Method, Project Method, Unit Plan.
- Integration of Work Education with other School Subjects.
- Place of Work Education in the school curriculum. Critical review of the Work Education syllabus prescribed by the West Bengal in the (i) Exposure stage and (ii) the Involvement stage.

- Areas of Work Education: Socially Useful Productive Work (SUPW), Occupational Explorations and Innovative Practices.
- Management of Work Units: Teacher and his training; Selection of Work Projects; Budgeting and Planning; Time Allocation; Materials and Equipments; Disposal of finished products; Organizational coordination; Monitoring network through resource centers.

#### Unit 5.

- Principles of framing Work Education Syllabus for secondary schools.
- Evaluation of Work Book, Practical Work and Attainment – developing tools – Rating Scale, Check List, Observation Schedule etc. Design of Work Diary for pupils; Teacher's Record Book.

#### Unit 6. Preparation of plan of Activity for Work Projects.

Preparation of Lesson Plan/Note.

### **Conducting Workshop Practical in Work Education (20 marks in Paper IX-X) (Part of Teaching Practical)**

1. Occupational explorations in the neighborhood and report thereon.
  2. Report on a Work Study Project.
  3. Practical Demonstration (based on basic operations) and writing of plans of activity on the following work projects –  
Group A (any two): Growing Vegetables; Household Wiring and Electrical Gadget Repairing; Tailoring and Needle Work; Bamboo Work and Wood Craft; Weaving; Tie-Bye and Batik printing; Clay Modeling; Fruit Preservation; Development of Medicinal Garden.  
Group B (any two): Cardboard work and Book binding; Soap, Phenyl and Detergent making; Toy and Fancy goods making; Paper making and Paper cutting work; Fruit/ Flower Gardening; Wallet and Mask making, Coir work; Bicycle Repairing.
  4. Identification of equipments and raw materials.
  5. Work Diary and Viva-voce.
- Evaluation: Any One Activity (10); Identification of Raw materials (5); Work Diary (5); and Viva-voce (5).

Page	Work Education	Specification
22	Unit – 1 Contents	To be emphasized contents of Class VI to VIII – All Units.
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]

### **PEDAGOGICAL ANALYSIS OF CONTENTS AND METHODOLOGY OF TEACHING PHYSICAL SCIENCE**

#### **Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks

Unit wise distinction of the syllabus of each class.

- **Activity on each unit includes –**
  - (i) Content analysis;
  - (ii) Identification of the concepts hierarchically;
  - (iii) Specification of instructional objectives in behavioural terms;
  - (iv) Suggesting teaching strategies;
  - (v) Selection of teaching aids with note on their preparation and mode of use;
  - (vi) Identification of concepts for demonstration or experimental verification/ display and handling of live specimen;

- (vii) Design demonstration procedure and / or experiments;
- (viii) Suggest investigatory or observation based questions;
- (ix) Preparation of criterion referenced tests; (x) critical evaluation of the effectiveness of the unit with reference to the whole school curriculum, further studies, employment and everyday life.

**.GROUP – B: METHODOLOGY OF TEACHING PHYSICAL SCIENCE (50 marks)**

**Unit 3.**

- Aims and objectives of teaching Physical Science in school.
- Relation between Physical Science and other subjects particularly Life Sciences and Mathematics.

**Unit 4.**

- Methods of teaching Physical Science: Lecture; Problem Solving; Discovery; Programmed Instruction; Project Methods; Demonstration; Heuristic Method; Computer Assisted Instruction.

**Unit 5.**

- ‘Scientific Temper’ and ‘Science Technology Literacy’: meaning and scope.
- Modes of popularization and propagation of science: science fair; science club; field trip; science magazine; science quizzes; science museum etc.
- Identification and nurturance of special talents in physical science.

**Unit 6.**

- Improvisation of materials for physical science teaching.
- The use of computers and models in teaching physical science.
- The Physical Science Laboratory - how to develop science laboratory.

**Unit 7.**

- Evaluation of (a) theoretical knowledge; and (b) practical work .
- Preparation of Lesson Plan/Lesson Note.

**Practical work based on the contents of syllabus of classes (20 marks in Paper IX-X & Part of Teaching Practical)**

Page	Physical Science	Specification
24	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
	Unit – 4 Methods of Teaching	To be emphasized-Lecture, Problem Solving, programmed Instruction, Demonstration and Heuristic Methods.
	Practical	To verify a) Laws of Reflection b) Laws of Refraction c) Ohm’s Law d) Value of “G” by simple pendulum e) Magnetism – lines of force f) Preparation of Co <sub>2</sub> & H <sub>2</sub>

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING LIFE SCIENCE**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks  
Unit wise distinction of the syllabus of each class.

- **Activity on each unit includes –**

- (i) Content analysis;
- (ii) Identification of the concepts hierarchically;
- (iii) Specification of instructional objectives in behavioural terms;
- (iv) Suggesting teaching strategies;
- (v) Selection of teaching aids with note on their preparation and mode of use;
- (vi) Identification of concepts for demonstration or experimental verification/ display and handling of live specimen;
- (vii) Design demonstration procedure and / or experiments;
- (viii) Suggest investigatory or observation based questions;
- (ix) Preparation of criterion referenced tests; (x) critical evaluation of the effectiveness of the unit with reference to the whole school curriculum, further studies, employment and everyday life.

**GROUP – B: METHODOLOGY OF TEACHING LIFE SCIENCE (50 marks)**

**Unit 3.**

- Aims and objectives of teaching Life Science in school.
- Relation between Life Science and other science subjects.

**Unit 4.**

- Methods of teaching Life Science: Lecture; Discovery; Laboratory; Programmed Instruction; Project Methods; Demonstration; Heuristic Method; Computer Assisted Instruction.

**Unit 5.**

- ‘Scientific Temper’ and ‘Science Technology Literacy’: meaning and scope; Place of Life Science within these concepts.
- Modes of building up awareness regarding Life Science and the popularization and propagation of Life Science: science fair; science club; field trips and specimen collection/ dissection; science magazine; science quizzes; science museums and zoos/ aquarium etc.
- Identification and nurturance of special talents in life science.

**Unit 6.**

- Improvisation of materials and collection and preservation of specimen for life science teaching.
- The role, use and ethics of live specimen in life science teaching.
- The use of computers and models in teaching life science.
- The nature and ethos of Life Science Laboratory.

**Unit 7.**

- Evaluation of (a) theoretical knowledge; and (b) practical work .
- Preparation of Lesson Plan/Lesson Note.

**Practical work based on the contents of syllabus of classes (20 marks in Paper IX-X & Part of Teaching Practical)**

1. Botany : i) T. S. of Root & Stem (Monocot & Dicot)  
ii) Dissection of Flower (complete regular & irregular)
2. Zoology : a) Identification of male & female Cockroach / Specimens;  
Or  
Identification of Bones of Guineapig / Toad  
b) and / or, Elementary System / Nervous System of Cockroach
3. Bio-Chemistry : Qualitative tests/identification of protein, Fat & Carbohydrate
4. Human Physiology : a) Preparation of Blood film & Study of human Blood Cells  
b) Measurement of Blood Pressure.

OR

5. Plant Physiology : Demonstration of Osmosis / Photosynthesis / Respiration / Transpiration.

**MODE OF EVALUATION**

**Life Sc. Practical**

( F. M. – 20)

- |    |   |   |
|----|---|---|
| 1. | Choosing/Selection of Materials & Equipments & Setting up of Expt.                          | 4 |
| 2. | Performing & Showing / Demonstration of Expt.   | 4 |
| 3. | Written work on concept and / or Drawing & Labelling of diagrams / Description of the Expt. | 4 |
| 4. | Spot Specimen/Slide Identification and/or, Biochemical Tests of Protein/Fat/Carbohydrate    | 4 |
| 5. | Viva-voce & Project Work (if any) & Lab. Practical Note Book                                | 4 |

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Total : 20  
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Page	Life Science	Specification
25	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
	Unit – 4 Methods of Teaching	To be emphasized – Lecture, Laboratory, Programmed, Instruction, Demonstration, Heuristic Methods.
	Practical Work	Six Topics for practical – to be finalized by the respective institution

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING MATHEMATICS**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks  
Unit wise distinction of the syllabus of each class.

• **Activity on each unit includes –**

- (i) Content analysis;
- (ii) Identification of the concepts hierarchically;
- (iii) Specification of instructional objectives in behavioural terms;
- (iv) Suggesting teaching strategies;
- (v) Selection of teaching aids with note on their preparation and mode of use;
- (vi) Identification of concepts for demonstration or experimental verification/ display and handling of live specimen;
- (vii) Design demonstration procedure and / or experiments;
- (viii) Suggest investigatory or observation based questions;
- (ix) Preparation of criterion referenced tests; (x) critical evaluation of the effectiveness of the unit with reference to the whole school curriculum, further studies, employment, everyday life.

**GROUP – B: METHODOLOGY OF TEACHING MATHEMATICS (50 marks)**

**Unit 3.**

- Objectives of teaching Mathematics in school.
- Relation between Mathematics and other school subjects.
- Psychological theories pertaining to the teaching of mathematics (brief view of Piaget, Dienes and Bruner with respect to mathematics teaching).

**Unit 4.**

- Methods of teaching Mathematics: (i) Inductive & Deductive; (ii) Synthesis & Analysis; (iii) Discovery & Problem Solving; (iv) Project Method.

**Unit 5.**

- Instructional aids in mathematics teaching: Need for instructional aids.
- Different types of teaching aids including Calculator, Computer and Models.
- Mathematics Laboratory..

**Unit 6.**

- Teaching of Mathematically backward student: Causes of backwardness in mathematics.
- Strategies for remedial teaching of mathematics.

**Unit 7.**

- Need for assessment in mathematics.
- Different types of assessment in mathematics and their roles in diagnosis & prognosis of mathematical achievement.
- Preparation of Lesson Plan/Lesson Note.

Page	Mathematics	Specification
26	Unit – 1 Contents of IX - X	All Units / Topics.
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]



**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING ART & CRAFT**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2** 30 marks

Pedagogical Analysis of the following contents -

Each content area is to be analyzed in to teaching units, sequences of teaching units, selection of teaching strategies, technique of evaluation and nature of questioning.

**Unit 3**

1. Definition of Art – differences between beauty of nature and the beauty of art.
2. A brief study of the characteristics of (i) Pre-historic period; (ii) Ajanta-Cave painting; (iii)Rajput painting; (iv) Mughal painting.
3. Characteristics of the painting of the Renaissance period in India and Europe with special reference to the art of Abanindranath, Rabindranath, Nandalal Bose, Jamini Roy, Botticelli, Leonardo de Vinci, Rembrandt and Raphael.

**Unit 4**

- Representational drawing and painting flower and foliage, fruits and projects in clay, glass and metal.
- Design and Lettering – their uses on Floor, Cloth, Pots and Posters.
- Modelling in clay of simple objects, moulding and casting.
- Block-making and printing with potato, lino and stencil printing.

Unit 5. Justifying the contents for inclusion in the school curriculum

**GROUP – B: METHODS OF TEACHING ART & CRAFT (50 marks)**

Unit 1.

- Aims and objectives of teaching art & craft in schools.
- Place of Art & Craft in School education.
- Child Art – its characteristics and the exceptional children.
- The Art Teacher's role, areas of activities viz. environment, participation in life, excursion to places of art etc.

Unit 2.

- Syllabus for different classes of secondary school in relationship with other subjects, specially Work Education.
- Method of teaching Art & Craft in secondary stage, the Art & Crafts Room equipments.

Unit 3. Activities related to Art & Craft in connection with environment, participation in life and teaching learning in school –

- Decoration of home and school in functions/festivals, school sports etc.
- Organizing School Exhibition, Art Exhibition.
- Art competition, outside Art Exhibition, Art Workshop, Art Fair.
- Simple activities of framing picture and preservation of painting and art objects.
- Visit to Art Gallery, Museums and Collections; Excursion to important places of art and architecture and cultural heritage of India.
- Preparation of teaching aids.

Unit 4. Evaluation in Art & Craft.

Lesson Plan / Note

**Practical work based on the contents of Unit 7 (25 marks in Paper IX-X & Part of Teaching Practical)**

Page	Art & Craft	Specification
27	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Topics of the syllabus

**PEDAGOGICAL ANALYSIS OF CONTENTS  
AND METHODOLOGY OF TEACHING MUSIC**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

Unit 2. Pedagogical Analysis of the following contents -

Each content area is to be analyzed in terms of definition/description/notations/concepts/teaching units whichever and wherever applicable.

- Music as defined by the Referentialist and the Absolutist schools of Aesthetics.
- Detailed techniques of South Indian Melakarta System and Hindusthani System.
- Characteristics of Ragas in Indian music – Sruti, Suddha and Vikrita Swara, Samavedi, Vivadi, Pakar, Ansa, Hras, Graha, Arohan, Avarohan, Behattwa, Purbanga, Uttaranga, Bhasanga, Kriyan.
- Theka and form of the following Talas: Dhamar, Choutal, Surfank, Teora, Kaharba, Dadra-Ektal, Trital, Jhamptal, Jhuara-Lopha, Desphira, Chhotodaskoahi, Dhotuki-Ruoakave, Jhampak, Nabatala, Ekadashi.
- Musical contributions of: Tansen, Maning Tomar, Amir Khasru, Haridas Swami, Jaidev, Vidyapati, Sadarang, Bharkhande (Ramnidhi Gupta) (Sreedhar Kathak), Rabindranath, Nazrul Islam.
- Influences of other types of Indian Music on Rabindranath's musical creativity, viz. Dhrupad, Kheyal, Folksongs and Kirtan.
- Basic differences between Classicism, Medievalism, and Modernism in music as well as between Western and Eastern styles.

Unit 3. Note on the use of accompanying musical instruments or any other aid required for teaching

**GROUP – B: METHODS OF TEACHING MUSIC (50 marks)**

Unit 4. Aims and objectives of teaching Music at the secondary level – change in the behaviour pattern in the form of concentration (manana), practice, presentation, competition and popularity.

Unit 5. Personality of a good musician –

- As expounded in 'Sangeet Ratnakar'.
- Musicality, musical talent, musical aptitude and musical creativity.

Unit 6. System of introducing music to the beginners –

- Use of Alankaras and Tannas for voice training.
- Introduction of Ragas considering the difficulty value.
- Introducing the Rabindra Sangeet.
- Introducing Folk Songs.
- Introducing Kirtans.

Unit 7.

- Various Notation Systems of teaching music.
- Use of Tanpura, Harmonium, Tabla – Art of listening; Skill of imitation, assimilation; System of practice.

Unit 8.

- Estimation of the present syllabus in Music for secondary schools.
- Evaluation in Music.  
Lesson Plan / Note

**Practical work based on the contents of Units 6 (25 marks in Paper IX-X & Part of Teaching Practical)**

Page	Music	Specification
28	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI - XII)]
	Unit – 2 Part –(a) & Part- (b)	Not to give emphasis
	Part – c Characteristics of Ragas	To be emphasized – Sruti, Suddha, Vikrita Swara, Samavedi
	Part-d	To be emphasized-Dhamar, Choutal, Surfank, Teora, Kaharba, Jhamptal
	Part-e	Tansen, Jaidev, Rabindranath, Nazrul Islam
	Part-g	Not to give emphasis
	Unit – 3 Not on .....Teaching	To be discussed in Unit-7
	Unit – 4	To be discussed – Place of Music in School education. Relation of Music with subjects : instead of – “change in the .....popularity” part
	Practical Works	On the contents of XI - XII

### **PEDAGOGICAL ANALYSIS OF CONTENTS AND METHODOLOGY OF TEACHING PHYSICAL EDUCATION**

**Group A: Contents and Pedagogical Analysis of contents(20 +30 marks)**

**Unit 1.** Contents of the Syllabus of Class IX-X under WBBSE or equivalent. 20 marks

**Unit 2.** Pedagogical Analysis on the contents of the syllabus of classes VI-VIII: 30 marks  
**Which includes**

- Identification of units and sub-units.
- Summarization of the essence of each unit.
- Sequence and re-sequence the units.
- Specification of instructional objectives.
- Selection of Teaching Strategies.
- Selection of Teaching Aids with notes on their preparation and mode of use.

- (g) Questioning with reference to specific objectives.  
(h) Criterion Referenced Test.

**GROUP – B: METHODS OF TEACHING PHYSICAL EDUCATION (50 marks)**

**Unit 3.**

- Aims & Objectives and scope of Physical Education in schools.
- Bases of Physical Education – psychological, sociological, historical and economic.
- Development of concept of work experience in general education suitable for India with special reference to NPE(1986).
- Behavioural outcomes expected out of the programme of Physical Education.

**Unit 4.**

- Methods of Guiding Physical Education: Discussion method, Demonstration Method, Project Method, Unit Plan.
- Integration of Physical Education with other School Subjects.
- Place of Physical Education in the school curriculum. Critical review of the Physical Education syllabus prescribed by the West Bengal in the (i) Exposure stage and (ii) the Involvement stage.
- Management of Units: Teacher and his training; Selection of Physical Education Projects; Budgeting and Planning; Time Allocation; Materials and Equipments; Disposal of finished products; Organizational coordination; Monitoring network through resource centers.

**Unit 5.**

- Principles of framing Physical Education Syllabus for secondary schools.
- Evaluation of Practical Book.

**Unit 6. Preparation of plan of Activity for Physical Education Projects.**

Preparation of Lesson Plan/ Lesson Note.

**Conducting Practical in Physical Education (25 marks in Paper IX-X & Part of Teaching Practical)**

1. Occupational explorations in the neighborhood and report thereon.
2. Report on a Physical Education Project.
3. Work Diary and Viva-voce.
4. Evaluation: Any one Activity

Page	Physical Education	Specification
29	Unit – 1 Contents of VIII	All units / Topics. Not to give emphasis on the syllabus of IX – X
	Unit – 2 Pedagogical Analysis	To be practiced – three lessons of the syllabus of Class VI & VII [at least one from each class]

**Paper – VII : Compulsory Elective Paper: (100 marks)**  
**Educational Measurement and Evaluation (EME)**

**COURSE OBJECTIVES:**

1. To enable the student-teacher to understand the concept of Measurement and Evaluation;
2. To enable the student-teacher to be acquainted with the construction and use of different Tools &

Techniques of Evaluation.

3. To enable the student-teacher to be acquainted with the standardization of tools of evaluation.
4. To enable the student-teacher to be acquainted with the modern trends in evaluation.
5. To enable the student-teacher to use/adapt & use standardized Psychological Tests.
6. To enable the student-teacher to understand the concept of Scales of Measurement and proper use of these in evaluation.
7. To enable the student-teacher to draw Ogive from educational data and use it in a meaningful way.
8. To enable the student-teacher to understand uses of Inferential Statistics for analysis of data and interpretation of results.
9. To enable the student-teacher to understand the Derived Scores and their uses in evaluation.

**COURSE CONTENTS:**

Unit 1.

- Concept of Measurement: Testing and Evaluation; Nature & purpose of Evaluation

Unit 2.

- Tools & Techniques of Evaluation: Observation – subjective & objective, Psychological & Educational Tests.
- Construction of Tools & Techniques: Observation Schedule; Attitude Scale; Achievement Test.
- Preliminary idea and acquaintance with Psychological Tests: Aptitude Test; Interest Inventory; Creativity and Personality Test.

Unit 3.

- Standardization of Tools of Evaluation.
- Adaptation of standardized tools of evaluation.

Unit 4. Modern Trends in Evaluation: Question Bank, Grading, Credit System & Cumulative Record Card.

Unit 5. Scales of Measurement: Nominal, Ordinal, Interval and Ratio – their uses in measuring characteristics/behaviour of individual.

Unit 6.

- Drawing and use of Ogive.
- Correlational techniques - Rank Difference method, Product Moment method..  
Use of inferential techniques- significance between means, SDs and Coefficient of Correlation.

Unit 7 .

- Normal Probability Curve -concept, characteristics and uses
- Skewness & Kurtosis.
- Percentile & Percentile Rank
- Derived Scores - Z -Score , Standard Score and T-Score- conversion and uses.

**Paper-VII: Compulsory Elective Papers: (100 marks)**

**Guidance & Counselling (GC)**

**COURSE OBJECTIVE:**

1. To develop in the student teacher an understanding of the concepts, need ,types, and kinds of guidance at the secondary stage of education.

2. To acquaint the student teacher with the tools and techniques of collecting data for guidance and counselling.
3. To develop in the student teacher an understanding of the concepts of adjustment, mental health and maladjustment with special reference to the adolescence stage.
4. To develop in the student teacher an understanding of the concept, need, type and purposes of counselling with special reference to the adolescence stage.
5. To acquaint the student teacher with the organization of School Guidance Service.

### **COURSE CONTENTS:**

#### **Unit 1.**

- . Guidance: Concept; Principles; Types (educational, Vocational and Personal); Kinds (individual and Group).
- . Need of Guidance with special reference to Secondary Higher Secondary stage of education.

#### **Unit 2.**

- . Techniques of collecting data for Guidance and Counseling: Intelligence Test, Aptitude Test. Achievement test, Interest Inventories.
  - . Interview, Questionnaire, Rating Scale, Socio-metric Test, Anecdotal Cumulative Record Card, Case Study

#### **Unit 3.**

- Concept of Adjustment: as adaptation to external(environmental) demands; as balance or integration of personality; as coping with stress.
- Mental Health: as a state of subjective well being; as objectively observable behaviour pattern; as a continuum.
- Relation of Adjustment and Mental Health.

#### **Unit 4.**

- Maladjusted pattern of behaviour in infancy and childhood: Attention Deficit and Hyperactivity; Feeding, Eating and Sleeping Disorder; Anxiety and Phobia Autism; Conduct Disorder; Disrupt Behaviour Disorder.
- Maladjusted pattern of behaviour in adolescence: Personal Disorder (Paranoid, Schizoid, Antisocial and Narcissistic); Substance related Disorder; Obsessive-Compulsive Disorder; Somatoform Disorder.

#### **Unit 5.**

- Common Adjustment Problems of Adolescence.
- Parental, Social and Educational Support for the Adolescent.

#### **Unit 6.**

- Counselling: definition. Counseling and Guidance.
- Psychotherapies – Psychodynamics; Behaviouristic and Social Learning approaches.
- Purposes of Counselling; Techniques of Counselling – Direct, Indirect and Eclectic.

#### **Unit 7.**

- Vocational Guidance: relation with Educational Guidance; Need for VG.
- Career Information, Sources, Methods of collection, Classification, Filling up of information and its dissemination.

#### **Unit 8.**

- Organization of School Guidance Service: minimum requirements for opening of Guidance Centre in School; minimum activities orientation; students information.

- Counseling, Placement Service, Remedial Service, Follow up Service; Child Guidance Clinic; Research Activities.

**Paper – VII : Compulsory Elective Paper: (100 marks )**

**Alternative Education (AE)**

**COURSE OBJECTIVES:**

1. To develop in the student teacher an understanding of the need, working, concepts, objectives, and scope of non-formal and adult education.
2. To help student teacher to appreciate the importance of providing life-long education to learners of all age groups at all levels according to their needs, aptitude and convenience. To develop in the student teacher an awareness of the significance of freedom, flexibility and openness in learning system.
3. To enable the student teacher to understand the need for offering parallel, alternative and less costly mode of education for removal of illiteracy; the need of democratization and universalization of education in India.
4. To acquaint the student teacher with the use of multidimensional and multi-source education for schooled, semi-schooled and unschooled learners.
5. To promote the new cult of 'learning society' believing in self-development, self-enrichment advancement in the 'Art of Living' through imparting adult education.

**COURSE CONTENTS**

**Unit 1. Approaches to Education:**

- Introduction of Non-formal Education (NFE): concept, nature and scope of non-formal education (NFE).
- Philosophical bases of NFE.
- Aims and objectives of NFE.

**Unit 2.**

- Types, agencies and approaches on NFE: types and agencies of NFE.
- Approaches and methods of NFE.
- Teachers of NFE.
- Audio & Visual Aids for NFE.

**Unit 3.**

- NFE in Indian context: Prospects of non-formal education in Indian context.
- Need for monitoring, evaluation and research for effective implementation of NFE programmes.

**Unit 4.**

- Introduction to Adult Education: Meaning, scope and objectives of adult education.
- Adult learning procedures – factors and conditions, effects of age.
- Tools of learning.
- Teachers of adult education – need for training.
- Evaluation process in adult education.
- Contents of adult education; functional learning.

**Unit 5.**

- Adult education in Indian context – an instrument for social regeneration and cultural transformation.

- Functional Literacy programmes – Role of National Literacy Mission; Total Literacy Campaign in achieving the social aim of ‘Education for All’.
- Need for effective and constant monitoring, evaluation and research in adult education.
- Role of Governmental Agencies in promoting adult education.
- Role of NGOs in promoting adult education.

#### Unit 6.

- Distance Education: Definition and scope; its relevance to Indian situation.
- Open Education and Distance Education.
- Problems and prospects of Distance Education in India.

### বর্ধমান বিশ্ববিদ্যালয়

শিক্ষক শিক্ষণ পাঠ্যক্রমের বাংলা ভাষা ও সাহিত্যের বিষয়,  
শিক্ষণ কল্পে বিষয়-বিশ্লেষণ ও শিক্ষণ পদ্ধতির পাঠ্যসূচি।

বিভাগ - ক : বিষয় ও শিক্ষণ কল্পে বিষয় বিশ্লেষণ (২০ + ৩০) নম্বর  
একক- এক : প : ব : ম : শি : পর্যদ / সমর্থনী পর্যদ- এর নবম ও দশম শ্রেণীর বাংলা বিষয়ের পাঠ্যসূচী ২০ নম্বর  
একক- দুই : ৬ষ্ঠ, ৭ম ও ৮ম শ্রেণির পাঠ্যসূচী অনুযায়ী শিক্ষণ কল্পে বিষয় - বিশ্লেষণ ৩০ নম্বর

#### পঠনীয় :

একক-১ : বিষয় নির্বাচন :-

- (অ) ৬ষ্ঠ, ৭ম ও ৮ম শ্রেণির উপযোগী একটি করে গদ্য ও কবিতা।
- (আ) ব্যাকরণ - সন্ধি, সমাস, কারক - বিভক্তি ও পদ প্রকরণ।

একক-২ : উপরোক্ত বিষয় নিম্নরূপে বিশ্লেষণ -

- (অ) পাঠের উদ্দেশ্য - রসোপলব্ধিমূলক / দক্ষতামূলক।
- (আ) পাঠটিকে উপেক্ষক হিসাবে চিহ্নিতকরণ।
- (ই) পাঠ এককের আচরণমূলক উদ্দেশ্য নির্দিষ্টকরণ।
- (ঈ) শিক্ষণ পদ্ধতি / কৌশল নির্বাচন।
- (উ) শিক্ষামূলক প্রদীপন নির্বাচন ও প্রভুতির সংক্ষিপ্ত বিবরণ।
- (ঊ) ভাষামূলক দক্ষতা উন্নয়নের উদ্দেশ্যে প্রশ্নকরণ।
- (এ) উদ্দেশ্যভিত্তিক অভীক্ষা।

#### বিভাগ - খ : শিক্ষণ পদ্ধতি

একক-৩ : মাতৃভাষা : সংজ্ঞা; মাতৃভাষা শিক্ষার উদ্দেশ্য, গুরুত্ব ও উপযোগিতা ; শিক্ষার মাধ্যম হিসাবে মাতৃভাষার গুরুত্ব, মাতৃভাষা শিক্ষার নীতি ও পদ্ধতি।

একক-৪ : পঠন :

- (অ) ভাষা শিক্ষায় পঠনের গুরুত্ব।
- (আ) উদ্দেশ্য ও প্রকৃতি অনুযায়ী পঠনের প্রকারভেদ।
- (ই) আদর্শ পঠনের বিশেষত্ব।

একক-৫ : কবিতা, গদ্য, ব্যাকরণ, বানান, দ্রুতপঠন, রচনা ও অনুবাদ শিক্ষাদানের উদ্দেশ্য, গুরুত্ব, পাঠদানকে সজীব ও সরস করার উপায় ও পদ্ধতি।

একক-৬ : ধ্বনিতত্ত্ব : ধ্বনিতত্ত্বের সংজ্ঞা ও উপযোগিতা।



একক-৭ : সাহিত্যানুশীলনমূলক কার্যাবলী : প্রয়োজনীয়তা ও প্রকারভেদ ।

একক-৮ :

(অ) শিক্ষণ দক্ষতা :সংজ্ঞা, বিভিন্ন শিক্ষণ দক্ষতা ও তার উপাদান; শিক্ষণ দক্ষতার চর্চা ও তার উপযোগিতা  
(আ) শিক্ষণ সহায়ক উপকরণ : ধারণা, ব্যবহারের উদ্দেশ্য ও প্রয়োজনীয়তা ; মাতৃভাষা শিক্ষায় ব্যবহৃত  
বিভিন্ন শিক্ষণ সহায়ক উপকরণ ও তাদের ব্যবহার কৌশল ।

একক-৯ : পাঠ পরিকল্পনা :সংজ্ঞা, উদ্দেশ্য ও প্রয়োজনীয়তা ; পাঠ পরিকল্পনা প্রভৃতি ; আদর্শ  
পাঠ-পরিকল্পনার বৈশিষ্ট্য।

Page	Bengali	Specification
	একক - এক নবম-দশম পাঠ্যসূচীর মধ্যে বিষয়গুলি  (Contents)	কবিতা - (* পতিত হেরিয়া কাঁদে -গোবিন্দ দাস (* বিভীষণের প্রতি ইন্দ্রজিৎ - মধুসূদন দত্ত (* উলঙ্গ রাজা - নীরেন্দ্রনাথ চক্রবর্তী (* রবীন্দ্রনাথের প্রতি - সুকান্ত ভট্টাচার্য গদ্য - (* সাগরসংগমে নবকুমার - বঙ্কিমচন্দ্র চট্টোপাধ্যায় (* মহেশ - শরৎচন্দ্র চট্টোপাধ্যায় (* নোনা জল - সৈয়দ মুজতবা আলি (*ছেঁড়া তার - তুলসী লাহিড়ী ব্যাকরণ - (* ভাষা ও উপভাষার সম্পর্ক (* ধাতু ও ক্রিয়াপদ (* বাক্যের শ্রেণীবিভাগ ও বাক্যের রূপান্তর
	একক - দুই বিষয় - বিশ্লেষণ (Pedagogical Analysis)	অনুশীলন করতে হবে (* ৬ষ্ঠ শ্রেণীর যে কোন একটি গদ্য (* ৭ম শ্রেণীর যে কোন একটি পদ্য (* ৮ম শ্রেণীর ব্যাকরণ (একটি বিষয়)

## Reference Books of New syllabus for Teacher Education with effect from 2008-09 Paper-I

### Reference Books :

1. Educational Thought and Practice---V.R. Taneja
2. Modern Philosophies of Education---John S. Bunbacher
3. Groundwork of Educational Theory---Ross
4. Education for Fulness---H.B. Mukherjee
5. Sikshataty O Sikshadarshan---Susil Roy
6. Bharatya Sikshar Samprotik Roop O Samasya---Arun Ghosh
7. Organisation of Schools---W.M. Ryburn
8. Sikshashrayee Samajtattwa---Bishnupada Panda
9. Teacher in Developing Indian Society---R.S.Pandey
10. Teacher and Education in the Emerging Indian Society--C.L.Anand et al.
11. Society - McLver & Page

12. Educational Sociology - Brown
13. New Education and its Aspects - K.K. Mukherjee
14. Samajtaty by Parimal Bhusan Kar
15. Theory and Principles of Education - B.D. Bhatia
16. Pratha Mukta Siksha - D.P. Mukherjee

#### ১৭. শিক্ষা-----রবীন্দ্রনাথ ঠাকুর

#### Paper- II

##### Reference books :

1. Education in India : Past, Present and Future, Vol-I & II ---J.P. Banerjee
2. History of Education in India---S.N. Banerjee
3. Siksher Bhavdhara, Paddhati O Samasyar Itihas-Arun Ghosh
4. Modern Indian Education---S.C. Chakravorty
5. University Education--Today & Tomorrow-S.N. Mukherjee
6. Development of Indian System of Education-R.S.Pandey
7. R.Sinha, Educational Administration in India.
8. P.O. Shukla. Administration of educational in India.
9. S.S. Mathur, Educational Management and Administration in India
10. R.P. Bhatnagar and V. Agarwal, Educational Administration
11. S.N. Mukherjee, Administration of Education, Planning and Finance
12. K. Wilee and I.T. Londi. Supervision for better Schools
13. Moul Pant. M. Principles of Educational Administrations
14. William R. Democratic practice in school Administrations
15. Sikshan Prasanya Siksher Itihas - Guurdas Halder
16. Students History of Education in India - J.P. Naik & S. Nurullah.
17. Distance Education -- \_Amar Nath Rai.

#### Paper- III

##### Reference books :

1. Educational Psychology---Skinner, B.E
2. Educational Psychology---Lovell, K.L.
3. Advanced Educational Psychology---Chauhan, S.S.
4. Educational Psychology---Aggarwal, J.C.
5. Siksha Monobidya---Susil Roy
6. Siksha Monostatya---Arun Ghosh
7. Manoshik Sasthya Bijnyan---Bibhu R. Guha
8. Educational Guidance---Jones and Jones
9. Educational Psychology---S.S.Mahur
10. Educational Psychology--Ellist, Kratochwill, Lettle field cook and Travers
11. Psychology Applied to Teaching-Biehler & snowman
12. Educational Psychology, Learning Instruction, Assesment Christtino B.Mccormick, Michael Pressley, Logman 1997
13. Psychology-The Science of Behaviour,Neil R.Carson, William Buskist
14. Educational Psychology-Paul Eggen , Don Kauchak Published

- By Merril Prentico Hall-New Jersey-2001
15. Educational Psychology-Elliet, Kratechwill,Lettle Field Cook Travers
  16. Psychology Applied to Teaching-Biehler and snowman, Houghten Mifflin & Co. 1991
  17. Psychology Applied to teaching - Elliot .
  18. Education Psychology N.L.Gage
  19. The Psychology of learning and instruction -By Dececco & Crawford.
  20. Introduction to Psy Mogan E' Kong.
  21. Educational Psychology - Anita E. Woolfolk.
  22. Advanced Edne Psy - Sk. Mangal.
  23. Thories of Learning by -Hilgard.
  24. Models of teaching- Bruce Joyee / Margha Wail

#### **.Paper-IV**

##### **Reference books :**

1. Educational Administration-- J. C. Agarwal
2. Secondary School Administration-- S. K. Kocchar
3. School Administration and organization-- Raghunath Safaya & B.D. Shaida
4. Efficient School Management and role of Principals--A. Kalra
5. Essentials of Educational Technology : Teaching learning and innovation --J.C.Agarwal
6. Introduction to Educational Technology--K.A. Sampath
7. Evaluation in Modern Education--Wright Stone,Justman andRobins
8. Heading Schools : With what competencies ?--Mukhopadhyay and Narula
9. Sikshan O Siksha Prasaga--Sushil Roy.
10. Siksha Prajukti Bigan --- Molay Kr. Sen
11. Successfulo teaching ---J.L.Mursell.
12. Vidyalaya - Sanghatan of Siksha - Prasar---- A.Ghosh.
13. Siksha Babasthapana ----- Debasish Pal.

#### **Work Education : Content-cum-methodology**

##### **Reference books :**

1. Work-oriented General Education--Eugene Staley
2. Madhyasikshar Rupantor-Karma Siksha--S.M. Chattopadhyay
3. Work Education-What, Why, and How (in Bengali)-S.P. Charkraborty
4. Sadharan Sikshay Karmasiksha--H.B. Majumder & N.P. Banerjee

#### **Guidance & Counselling in Education :**

##### **Reference books :**

1. Guidance and Counselling--A.K. Nayek
2. Guidance Practices and Results--John W.M. Rothney
3. Counselling in Schools--Robert Bor

## **Physical Education :**

### **Reference books :**

1. Foundations of Physical Education--Charles A. Bucher
2. Sharir Siksha Prosongya --Subir ganguly
3. Teaching of Physical and Health Education--B.D.Bhatt and S.R.Sharma
4. Principles and History of Physical Education--R.C. Sathyanesan

## **Methodology of Teaching Physical Science :**

### **Reference books :**

1. Science Teaching in schools--R.C. Das
2. Innovative Science Teaching for Physical Science Teacher-Radha Mohan
3. Source Book for Science Teachers-pub. By UNESCO
4. Bhouto Bigyane Sikshak Siksharthi--K.K. De (in Bengali)
5. Padartha Bigyan Sikshan Padhati ----Atul Krishna Mandal.
6. Bhouta Bigyana Sikshan Padhati-----Debashis Pal

## **Method of Teaching Mathematics :**

### **Reference books :**

1. Teaching of Mathematics--Theory and Practice--J.W.A. Young
2. Teaching of Secondary Mathematics--Butter and Wren
3. The teaching of Mathematics in Secondary Schools-Arthur Schultz
4. The teaching of essentials of arithmetic--P.B. Ballard
5. Some aspects of mathematics--J.N. Kapoor
6. Teaching of Secondary Mathematics--S.Sidhu
7. Goni Sikshan Padhati----Subrata Banerjee

## **Method of Teaching Economics :**

### **Reference books :**

1. Teaching of Economics--A Practical Approach--J.C. Aggarwal

## **Method of Teaching Philosophy :**

### **Reference books :**

1. Teaching Philosophy in the Twenty First Century--P.C. Victor

## **Method of Teaching History :**

### **Reference books :**

1. The Teaching of History--S.K. Kochhar
2. Teaching of History--J.C. Aggarwal
3. The Teaching of History--V.D. Ghatge
4. Sikshan Prasanga Itihas--Gourdas haldar
5. Etihad Sikshan ----- Dilip Sengupta
6. Etihad Sikshan Prasanga--Dr. Debasis Debnath
7. Etihad Sikshan ----- Bhakti Bhushan Bhakta.

## **Method of Teaching Geography :**

### **Reference books :**

1. The Teaching of geography in Secondary Schools-Association of Assistant Masters, Cambridge
2. Source Book for Geography Teaching--UNESCO
3. Teaching of Geography--M.S. Rao
4. Bhugole Sikshan Paddhati--Anil Kumar Das
5. Bhugole Sikshan Paddhati-- Madhunita Das

## **Method of Teaching Life Science:**

### **Reference books :**

1. Giban Bigyan Sikshan Padhati ----Amal Chatterjee.

## **Method of Teaching English :**

### **Reference books :**

1. English Language Teaching; from theory to practice--Ratna Mullick
2. Problem and solution of Teaching English--R.K. Sharma
3. English Language Teaching--Geetha Nagaraj
4. Teaching English as a Second Language--C.P. Verghese
5. Method of Teaching English -- Thompson & Watt.
6. Method of Teaching English-- Sukhomay Sengupta.

## **Method of Teaching Sanskrit :**

### **Reference books :**

1. Sainskrta siksaneer ruparekha--Srissundar Gopal sahityaratna
2. Method of Teaching Sanskrit --Atulananda Mondal

## **Method of Teaching Hindi :**

### **Reference books :**

1. Hindi Sikshan--R.S. Pandey
2. Hindi Bhasa Sikshan --Bhai Jogendrajit
3. Matribhasa Sikshan--K. Kshatriya
4. Bhasa ki sikshan bidhiya aur path-niyojan--Lashminarayan Swamy

## **Method of Teaching Music :**

### **Reference books :**

1. Sanjit O sikshaneeti--Nkhil Chakraborti
2. Rabindra Sangit Sushama--KiranShashi De
3. Rabindra Sangit Sur Sadhana--Subinay Roy
4. Rabindra Sangit--Santideb Ghosh

## **Evaluation in Education / Measure of Education :**

### **Reference books :**

1. Handbook of Formative and summative Evaluation of Student Learning--B.S.Bloom
2. Measuring Educational Achievement--R.L. Ebel
3. Evaluation in Modern Education--Wrightstone-Justman-Robbins.
4. Mulayayan : Neeti-O- Koushal--Sushil Roy

5. Principles of Ednl & Psychological testing ----G.Brown
6. Psychological testing by Anastasi
7. Abhikha Bigyan --- Bhujange --- B.Bhattacharyay

### **Educational statistics :**

#### **Reference books :**

1. Statistics in Psychology and Education--Garrett, H.E.
2. Fundamental Statistics in Psychology and Education--Gullford, J.P.
3. Non-Parametric Statistics for the Behavioural Sciences--Siegel, S.
4. Educational and Psychological Measurement--Ebel, R.L.

### **Alternative Education :**

#### **Reference books:**

1. Alternative Education ----- J.C.Agarwal
2. Environmental Education--- J.C.Agarwal
3. Prata Mukta Siksha ---- D.P. Mukherjee
4. Environmental Education--- K.K.Srivastava

### **Papers –IX & X**

#### **Pedagogical Activities (on Two Method Subjects) – 2x100 marks**

To fulfill the basic objectives of teacher education, the institutions of teacher education should arrange for sufficient practice in teaching skills--both in simulation and in actual classroom situation, and a student teacher must have to acquire minimum level of proficiency in teaching skills through compulsory participation in Practice teaching activities as follows –

1. Every student-teacher has to practice and acquire at least 2(two) basic skills through micro-/mini-teaching situations and to deliver at least 1(one) demonstration in each method subject with receiving feed back from the Teacher-education as well as Peers .before sending to practice teaching in schools . Documents to be kept in college records.
2. During practice, each student-teacher would execute at least 40 lessons in two method subjects, with no less than 15 lessons in any method subject .The External Examiner appointed by the University at the time of Final Teaching Examination, should verify this from record of daily lesson plans.
3. All candidates shall be required to deliver two lessons – one in each method subject.
4. Guideline for Evaluation of teaching practical :During assessment of teaching practical following tasks have to be considered (a) Lesson Plan (b) Voice, Exposition and Delivery

**(c) Presentation with clear objectives (d) Questioning and Interaction (e) Use of teaching aids (f) Learners' Participation (g) Black Board work.**

- 5. The External Examiner & Internal Examiners (a) for all methods papers (b) method specific subject teacher appointed by the University will jointly examine candidates in Teaching Practical.**
- 6. The total marks awarded to each candidate in a single marks list are to be submitted to the University with signature of both external and internal examiners. The details of award to each candidate in a separate sheet are to be kept in record at the college concerned.**
- 7. For lab-based subjects, the student-teacher have to be evaluated on the basis of her/his ability conducting the practical on a particular topic, selected by both the external and internal examiner (subject teacher) appointed by the University for the purpose.**

## **BURDWAN UNIVERSITY**

**Academic Guideline on some points / units of different papers of B.Ed. Syllabus w.e.f. 2008-2009 onwards.**

Page	Units /Points	Specification
1	Duration of course	Total no. of teaching days 180 including 40 Practice Teaching Days
	<b><u>Paper-VIII</u></b>	<b>Specification</b>
3	1. Tutorial 2. Micro Teaching	Tutorial on four general papers only (At least 2(two) in each paper)
		Micro teaching on any two skills based on two method subjects, out of the following four skills- i) Black Board Work ii) Questioning iii) Introduction iv) Use to Teaching Aids
	<b><u>Paper-I</u></b>	<b>Specification</b>
4	Unit-1 Second point Bases of Edn.	Sociological basis to be discussed in specific; detailed to be discussed in Unit -5
5	Unit-6 <u>Last point</u> Mass Media.....acculturation	Not to give stress on -‘collection of information and acculturation.’
5	Unit-7 Population Education ..... Approaches to .....Life Style Education	For , “Approaches to population ..... Life Style Education ” - to be discussed,- Meaning and needs of Life Style Education
5	Unit-8 Environmental Education..... Approaches..... Secondary Stage.	For “Approaches to environmental secondary stage .” .....1 <sup>st</sup> portion of the unit covers it.
5	Unit - 9 Last point ; Life-long Education.....	To be discussed, - Meaning and objectives of open and Distance Learning.

(\*) Page Nos. of the circulated syllabus (B.Ed.) w.e.f. 2008-2009 onwards.

Page	<b><u>Paper-II</u></b>	Specification
6	Unit-2 Educational Values.....	2 <sup>nd</sup> point-“Educational Values...Indian



	Constitution.	constitution” to be discussed in brief.
7	Unit-7 Education in 10 <sup>th</sup> & 11 <sup>th</sup> five year plans	“Education in 10 <sup>th</sup> & 11 <sup>th</sup> five year plans” To be discussed only outline and objectives of Edn. in 10 <sup>th</sup> & 11 <sup>th</sup> five year plans.
7	Unit-8 1 <sup>st</sup> point : Reports..... Education for All	To be discussed in brief : The Preamble and Articles of World Declaration on Education for All
	2 <sup>nd</sup> point : Global Moni.....UNESCO	To be discussed-very specific guideline of the Report.
7	Unit-9 Last point ; Inclusive Education.	To be discussed- specific meaning and problems.
7	Unit-10 Int.Edu. Commission 21 <sup>st</sup> century Knowledge Commission	To be discussed-specific objectives and points of Recommendations. * To be discussed-specific objectives and areas of reference.
<b>Page</b>	<b><u>Paper-III</u></b>	<b>Specification</b>
8	Unit-1 [a] Language development- [b] Cognitive development [c] Moral development	To be discussed – developmental process and implications in Education To be discussed – stages with characteristics. To be discussed –stages and problems
8	Unit-2 Information procession (Rogers’) Humanistic (Maslow’s)	To be discussed –under unit – 9, Models of teaching To be discussed –under Motivation (Last point, unit-2
8	Unit-3 Measurement of Intelligence (One group test, one individual test)	To be discussed (a) For individual test-Binet-Symon test with revisions. (b) For group test –Army beta test

<b>Page</b>	<b>Units /Points</b>	<b>Specification</b>
9	Unit-5 Measurement of personality	To be discussed – as test or technique (a) TAT (b) Sociometry
9	Unit-6 1 <sup>st</sup> Point ; Basic concepts of	To be discussed – Meaning and basic

	Teaching and instruction.	principles
	Last Point ; Bloom's (C/A/Psy. domains)	To be discussed – Domains with specific examples.
9	Unit – 8 Technology.....(Web.... .....Tutoring System)	To be discussed only- Objectives and needs; for bracketed portion, merits and demerits
9	Unit-9 Models of Teaching	To be discussed- Four concepts for describing Models (syntax, social system, principles of reaction and support system)
	Constructivist approach to teaching.....	To be discussed only – meaning and characteristics
<b>Page</b>	<b><u>Paper-VIII</u></b>	<b>Specification</b>
10	Unit -1 Last point ; System Approach	To be discussed – Meaning , steps or structure
11	Unit – 5 Last two points, MIS & Feedback and Re - planning	To be discussed – very briefly with the 1 <sup>st</sup> point of unit -1, Not under unit -5.
11	Unit – 8 EDUSAT	To be discussed – Meaning and purposes
11	Unit -10 Measures of Dispersion	To be calculated – Only SD & Q

### Methods Papers

Page	Bengali	Specification
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	<p>একক - এক নবম-দশম পাঠ্যসূচীর মধ্যে বিষয়গুলি</p> <p>(Contents)</p>	<p>কবিতা -</p> <p>(*) পতিত হেরিয়া কাঁদে -গোবিন্দ দাস</p> <p>(*) বিভীষণের প্রতি ইন্দুজিৎ - মধুসূদন দত্ত</p> <p>(*) উলঙ্গ রাজা - নীরেন্দ্রনাথ চক্রবর্তী</p> <p>(*) রবীন্দ্রনাথের প্রতি - সুকান্ত ভট্টাচার্য</p> <p>গদ্য -</p> <p>(*) সাগরসংগমে নবকুমার - বঙ্কিমচন্দ্র চট্টোপাধ্যায়</p> <p>(*) মহেশ - শরৎচন্দ্র চট্টোপাধ্যায়</p> <p>(*) নোনা জল - সৈয়দ মুজতবা আলি</p> <p>(*) ছেঁড়া তার - তুলসী লাহিড়ী</p> <p>ব্যাকরণ -</p> <p>(*) ভাষা ও উপভাষার সম্পর্ক</p> <p>(*) ধাতু ও ক্রিয়াপদ</p> <p>(*) বাক্যের শ্রেণীবিভাগ ও বাক্যের রূপান্তর</p>
	<p>একক - দুই বিষয় - বিশ্লেষণ</p> <p>(Pedagogical Analysis)</p>	<p>অনুশীলন করতে হবে</p> <p>(*) ৬ষ্ঠ শ্রেণীর যে কোন একটি গদ্য</p> <p>(*) ৭ম শ্রেণীর যে কোন একটি পদ্য</p> <p>(*) ৮ম শ্রেণীর ব্যাকরণ (একটি বিষয়)</p>
Page	English	Specification
12	Unit – 1 Contents of IX – X	(a) Last three lessons of Class - IX (b) First three lessons of Class –X (Under W.B.B.S.E. syllabus)
	Unit – 2 Pedagogical Analysis	To be practiced – Three lessons [One from each Class – (VI, VII & VIII)]
Page	Hindi	Specification
13	Unit – 1 Contents of IX – X	(a) Last three lessons of Class - IX (b) First three lessons of Class – X (Under W.B.B.S.E. syllabus)
	Unit – 2 Pedagogical Analysis	To be practiced – Three lessons [One from each Class – (VI, VII & VIII)]
Page	Sanskrit	Specification
14	Unit – 1 Contents of Class – VIII	To be emphasized – contents of Class – VIII Syllabus on Sanskrit as Prescribed by the W.B. Board of Secondary Education.
	Unit – 2 Pedagogical Analysis	To be practiced – any three lessons of Class VII

Page	History	Specification
15	Unit -1 Contents of IX - X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Units [one from each Class (VI, VII & VIII)]

<b>Page</b>	<b>Geography</b>	<b>Specification</b>
16	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Units [one from each class (VI, VII & VIII)]
	Unit – 4 (corrected) Methods of Teaching Geography Geography Room	To be emphasized – Deductive, Inductive, Observation. Regional Method, Project Method, Laboratory Method.
		To be discussed Organization of Geography Room
	Practical Work	Practical Work on (1)* Rainfall – only Bar diagram (*) Dot – Methods and interpretation - Rice & Wheat (2) Map Projection – only (a) Conical projection.....parallel (3) Identification and Classification of common rocks (4) Field Study (5) Lab Note Book
<b>Page</b>	<b>Commerce</b>	<b>Specification</b>
17	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]
<b>Page</b>	<b>Philosophy</b>	<b>Specification</b>
18	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]
<b>Page</b>	<b>Economics</b>	<b>Specification</b>
19	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]

<b>Page</b>	<b>Political Science</b>	<b>Specification</b>
20	Unit – 1 Contents of XI – XII	All Units / Topics

	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]
<b>Page</b>	<b>Education</b>	<b>Specification</b>
21	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI –XII)]
<b>Page</b>	<b>Work Education</b>	<b>Specification</b>
22	Unit – 1 Contents	To be emphasized contents of Class VI to VIII – All Units.
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
<b>Page</b>	<b>Physical Science</b>	<b>Specification</b>
24	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
	Unit – 4 Methods of Teaching	To be emphasized-Lecture, Problem Solving, programmed Instruction, Demonstration and Heuristic Methods.
	Practical	To verify a) Laws of Reflection b) Laws of Refraction c) Ohm’s Law d) Value of “G” by simple pendulum e) Magnetism – lines of force f) Preparation of Co <sub>2</sub> & H <sub>2</sub>
<b>Page</b>	<b>Life Science</b>	<b>Specification</b>
25	Unit – 1 Contents of IX – X	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
	Unit – 4 Methods of Teaching	To be emphasized – Lecture, Laboratory, Programmed, Instruction, Demonstration, Heuristic Methods.
	Practical Work	Six Topics for practical – to be finalized by the respective institution

<b>Page</b>	<b>Mathematics</b>	<b>Specification</b>
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26	Unit – 1 Contents of IX - X	All Units / Topics.
	Unit -2 Pedagogical Analysis	To be Practiced three lessons / Topics [one from each Class ( VI, VII, VIII )]
<b>Page</b>	<b>Art &amp; Craft</b>	<b>Specification</b>
27	Unit – 2 Pedagogical Analysis	To be practiced three lessons / Topics of the syllabus
<b>Page</b>	<b>Music</b>	<b>Specification</b>
28	Unit – 1 Contents of XI – XII	All Units / Topics
	Unit – 2 Pedagogical Analysis	To be Practiced three lessons / Topics [at least one from each Class (XI - XII)]
	Unit – 2 Part –(a) & Part- (b)	Not to give emphasis
	Part – c Characteristics of Ragas	To be emphasized – Sruti, Suddha, Vikrita Swara, Samavedi
	Part-d	To be emphasized-Dhamar, Choutal, Surfank, Teora, Kaharba, Jhamptal
	Part-e	Tansen, Jaidev, Rabindranath, Nazrul Islam
	Part-g	Not to give emphasis
	Unit – 3 Not on .....Teaching	To be discussed in Unit-7
	Unit – 4	To be discussed – Place of Music in School education. Relation of Music with subjects : instead of – “change in the .....popularity” part
	Practical Works	On the contents of XI - XII
<b>Page</b>	<b>Physical Education</b>	<b>Specification</b>
29	Unit – 1 Contents of VIII	All units / Topics. Not to give emphasis on the syllabus of IX – X
	Unit – 2 Pedagogical Analysis	To be practiced – three lessons of the syllabus of Class VI & VII [at least one from each class]

Note :-

- 1) No specific guideline for Compulsory Elective Papers.
- 2) Simple calculator may be permitted at the time of Final Examination.

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## Method subjects

Question pattern :

Content	-----	20 marks		
i)	Obj.	(2 marks)	---	2 x 2 = 4
ii)	VSA	(3 marks)	---	2 x 3 = 6
iii)	Descriptive	(10 marks)	---	1 x 10 = 10
				-----
				20 marks
				-----
Pedagogy	-----	30 marks		
i)	Obj.	(2 marks)	---	3 x 2 = 6
ii)	VSA	(3 marks)	---	3 x 3 = 9
iii)	Descriptive	(15 marks)	---	1 x 15 = 15
				-----
				30 marks
				-----
Method	-----	50 marks		
i)	Obj.	(2 marks)	---	5 x 2 = 10
ii)	VSA	(3 marks)	---	5 x 3 = 15
iii)	Descriptive	(15 marks)	---	1 x 15 = 15
iv)	Descriptive (Lesson plan)	(10 marks)	---	1 x 10 = 10
				-----
				50 marks
				-----

## Question paper Form

Question	-	1,	obj.	<u>10 out of 14</u>	20 marks
			Cont.	-- 3	
			Pedagogy	-- 4	
			Method	-- 7	
				-----	
				14	
Question	-	2.	VSA	10 out of 14	30 marks
			Cont	-- 3	
			Pedagogy	-- 4	
			Method	-- 7	
				-----	
				14	
Question	-	3.	Answer (a) or (b)		10 marks
			Descriptive		
			From <u>Content part</u>		

Question 15	-	4.	<u>Answer (a) or (b)</u>	--	15 marks	-
Question 15	-	5.	<u>From pedagogy</u> <u>Answer (a) or (b)</u>	--	15 marks	-
Question 10	-	6,	<u>From Method</u> Prepare a Lesson plan On <u>any one Unit</u> Plan as per directions	--	10 marks	-
/_ (i) (ii) (iii) (iv) _/						
<u>From Method part</u>						

\* In Descriptive questions no part will carry more than 10 marks.

#### Elective Subjects

Questions pattern -

1.	objective	(2 marks)	--	10 x 2	=	20 marks
2.	VSA	(3 marks)	--	4 x 3	=	12 marks
3.	SA	(4 marks)	--	4 x 4	=	16 marks
4.	Descriptive	(10 marks)	--	2 x 10	=	20 marks
5.	Descriptive	(16 marks)	--	2 x 16	=	32 marks

Total : 100 marks

#### Question Paper form

Question marks	-	1 :	Objective	--	10 out of	15	=	20
Question marks	-	2 :	VSA	--	4 out of	6	=	12
Question marks	-	3 :	SA	--	4 out of	6	=	16
Question Descriptive marks	-	4 :	Answer any two from (a) (b) (c) & (d)				=	20
Question Descriptive marks	-	5 :	Answer any two from (a) (b) (c) & (d)				=	32



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marks

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100  
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\* In Descriptive Questions, no part will carry more than 10 marks.