

**REDUCED SYLLABUS
&
SCHEME OF EXAMINATIONS
AND QUESTION DESIGN
for
H.S.L.C. EXAMINATION**

2020 – 2021



**MIZORAM BOARD OF SCHOOL EDUCATION
AIZAWL : 796 012**

MIZORAM BOARD OF SCHOOL EDUCATION
AIZAWL : 796 012

Dated Aizawl, the 7th August, 2020

NOTIFICATION


No. J.11016/1/2018-MBSE(Acad)/16 : It is notified for the information of all High Schools & Higher Secondary Schools that in view of the long closure of schools due to relentless spreading of Covid – 19 pandemic resulting in the extreme loss of classroom instructional time, the 83rd Meeting of the Syllabus Committee of the Board, held on 5th August, 2020 had resolved to reduce the syllabus of High School & Higher Secondary School by 30% (Thirty percent) from the existing course. As such, all High Schools & Higher Secondary Schools are hereby directed to adopt their respective reduced syllabus for the academic session 2020 – 2021 as enclosed herewith.

The reduced syllabi are also available on the Board's official website www.mbse.edu.in.

Sd/- LALTHANGBIKA
Secretary
Mizoram Board of School Education

Memo No. No. J.11016/1/2018-MBSE(Acad)/16 :: Dated Aizawl, the 7th August, 2020
Copy to :

1. The Commissioner & Secretary to Govt. of Mizoram, School Education Department and Controlling Authority of the MBSE, Aizawl.
2. The Director, School Education Department, Govt. of Mizoram, Aizawl.
3. The Principal, Institute of Advanced Study in Education, Aizawl.
4. The Controller of Examinations, MBSE.
5. Regional Officer, MBSE Regional Office, Lunglei.
6. All District Education Officers, Govt. of Mizoram, for information, with a request to circulate to all Secondary Schools & Higher Secondary Schools under their jurisdiction.
7. System Administrator MBSE, for uploading in the official website.
8. All others concerned.
9. Guard File I.


(R. LALTHLAMUANA)
Director (Academic)
Mizoram Board of School Education

Subject : Mizo Class – 9

Chapter	Topic / Portion Deleted for 2020-2021 academic session	Portion
4	Kan Zoram nuam by Hrânghnûna	Poetry
6	Min then lul suh by Lalzova	Poetry
11	A lem leh a tak by Vanneihtluanga	Prose
15	Rilru puitling by H. Ngûrthansanga	Prose
18	Sumdawnna by Lalrochuanga Pachuau	Prose
27	Mizo Tawng ziah dan	Grammar
28	Tawng upa (serial nos. 21 to 35)	Grammar

Weightage to content area :

Chapter	Topic Selected for 2020—2021 academic session	Portion
1	A saw raltiang tlangah by Lalmana	Poetry
2	Hrinhniang an liamna thlafam khua chu e by Saihnuna	
3	Ka pian ka seilenna ram by Rokunga	
5	Lam ang ka lo let leh ta e by F. Rokima	
7	Buannel by R.L. Thanmawia	
8	Sem sem dam dam by B. Bawlkhuma	
9	Luah loh run by Zirsangzela Hnamte	
10	Hmangaih lenrual dar ang by Damhauhva	
12	Mihring dikna leh chanvo by Lalhmanmawia	
13	Tlawmngaihna leh aia upa zah by R. Lalrawna	Prose
14	Huaina by R.H. Rokunga	
16	Incheina by P.L. Liandinga	
17	Mahni inhneh by Lalzuia Colney	
19	Chhiatni thatni by Thanpuii pa	
20	Nungcha leh zofate by B. Lalthangliana	
21	Lungawina by James Dokhuma	
22	Noun	Mizo Grammar
23	Pronoun	
24	Gender	
25	Number	
26	Chhinchhiahna (Punctuation)	
28	Tawng Upa (serial nos. 1 to 20)	
29	Lungrem a chim by Liansailova	Lemchan

30	Pathian samsuih	by Rev. Zokima	Thawnthu tawi
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Weightage to form of questions : **No change.**
Sample Blueprint : **No change**

Subject : English Class – 9

COURSE BOOK (Prose)

1. Tsunami : The Killer Waves.
2. A Lesson for Tyler.
3. Sound Sensations from Evelyn Glennie.
4. Blind Date
5. Mother Teresa

Omitted:

- (1) Mysterious Phenomena.
- (2) The Mahatma's Marksheets.
- (3) Tangerine the Wasp.
- (4) Operation Indian Ocean.
- (5) Yang the Youngest.

COURSE BOOK (Poetry)

1. Eldorado.
2. Life
3. A Tiger in the Zoo.

Omitted:

- (1) Neighbours.
- (2) On the grasshopper and the Cricket.

WRITING

Long Composition : (1) Descriptive essay.
(2) Letter Writing (Formal and Informal).
(3) Diary Entry.

Omitted:

- (1) Newspaper Articles.
- (2) Article Writing.

Short Composition : (1) Report/paragraph writing.
(2) Message Writing (3) Post card Writing.

Omitted:

- (1) Notice.
- (2) Invitation (Formal & Informal).
- (3) Poster.

GRAMMAR

Worksheet : 2, 3, 4, 5, 6, 7, 8.

Omitted : 1, 9, 10

LITERATURE

1. Lets Go Home..
2. Pip's Adventure.
3. A Bond With the Wild.
4. Rimenhawih.
5. Michael.

Omitted:

- (1) The Night We Won the Buick.
- (2) The Surgeon.
- (3) Gritty.

Sample Blueprint : **No change.**

Subject: Mathematics (Deleted) Class – 9

Unit	Topic/Portion deleted
Unit-I: Number System	
Real Numbers	<ul style="list-style-type: none">- Representation of terminating/non-terminating recurring decimals on the number line through successive magnification- Explaining that every real number is represented by a unique point on the number line and conversely, viz every point on the number line represents a unique real numbers.
Sets	No deletion
Unit-II: Commercial Mathematics	
Compound Interest	No Deletion
Ratio and Proportion	- Direct variation - simple and direct word problem
Cost of Living Index	Delete full chapter
Sales tax	Delete full chapter
Unit-III: Algebra	
Polynomials	<ul style="list-style-type: none">- Statement and proof of the Factor theorem.- Recall of algebraic expression and identities. Further identities of the type: $x^3 + y^3 + z^3 - 3xyz$
GCD and LCM	No deletion
Linear Equations in Two Variables	No deletion
Unit-IV: Geometry	
Lines and angles	No deletion
Triangles	No deletion
Concurrent Lines in a Triangle	Delete full chapter
Quadrilaterals and Parallelograms	No deletion
Area	Delete full chapter
Constructions	- Construction of a triangle of a given perimeter and base angles

Circles	Delete except definition of circle related concepts, radius, circumference, diameter, chord, arc and simple numerical problems.
Unit-V: Coordinate Geometry	No deletion
Unit-VI: Trigonometry	
Trigonometric ratios	No deletion
Trigonometric Identities	No deletion
Unit-VII: Mensuration	
Areas	Application of Hero's formula in finding the area of a quadrilateral
Surface Areas and volumes	No deletion
Unit-VIII: Statistics and Probability	
Statistics	- Histogram(with varying base lengths) - Frequency polygons - Mean, median and mode of ungrouped data
Probability	No deletion

Revised MATHEMATICS CLASS – 9

UNIT-I: NUMBER SYSTEM

Real numbers:

- Irrational number as non-terminating and non-repeating decimals
- Real numbers and the real number line. Surds and Rationalization of surds. Problems of proving a number to be irrational number should be avoided. Representing an irrational number on the number line should be avoided for numbers other than $2\sqrt{3}$ and 5

Sets:

- Revision
- Representation of sets, equal sets, subsets, power set, universal set.

UNIT-II: COMMERCIAL MATHEMATICS

Compound Interest:

- Compound interest when the interest is compounded yearly and half-yearly.
- Rate of growth and depreciation. Conversion period not more than four (Rate should be 4%, 5% or 10%).

Ratio and Proportion:

- Ratio and proportion.

UNIT-III: ALGEBRA

Polynomials:

- Definition of a polynomial in one variable, its coefficients, with examples and counter examples, its terms, zero polynomial.
- Degree of a polynomial. Constant, linear, quadratic, cubic polynomials; monomials, binomials, trinomials.
- Factors and multiples.
- Zeros / roots of a polynomial / equation. State and motivate the Remainder Theorem with examples and analogy to integers.
- Factorisation of $ax^2 + bx + c$, $a \neq 0$ where a, b, c are real numbers, and of cubic polynomials using the Factor Theorem.
- Recall of algebraic expressions and identities. Further identities of the type:

$(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$; $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$;
 $x^3 \pm y^3 = (x \pm y)(x^2 \mp xy + y^2)$; and their use in factorization of polynomials.

G.C.D. and L.C.M.

- G.C.D. and L.C.M. of polynomials by factorisation.

Linear Equations in Two Variables:

- Recall of linear equations in one variable.
- Introduction to the equation in two variables.
- Prove that a linear equation in two variables has infinitely many solutions, and justify their being written as ordered pairs of real numbers, plotting them and showing that they seem to lie on a line.
- System of linear equation in two variables.
- Solution of the system of linear equations by substitution method.
- Simple word problems.

UNIT-IV: GEOMETRY

Lines and Angles:

1. If two parallel lines are intersected by a transversal, then the pair of corresponding angles are equal.

2. If two parallel lines are intersected by a transversal, then the pair of alternate angles are equal.
3. Vertically opposite angles are equal.
4. If a transversal intersects two lines in such a way that a pair of alternate angles is equal, then the two lines are parallel.
5. If a transversal intersects two parallel lines, then the interior angles on the same side of the transversal are supplementary.
6. If a transversal intersects two lines in such a way that a pair of interior angles on the same side of the transversal are supplementary, then the two lines are parallel.
7. Lines which are parallel to a given line are parallel to each other.
8. If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the two interior opposite angles.

Triangles:

1. Two triangles are congruent if any two sides and the included angle of one triangle are equal to any two sides and the included angle of the other triangle.
2. Two triangles are congruent if any two angles and the included side of one triangle are equal to any two angles and the included side of the other triangle.
3. Two triangles are congruent if the three sides of one triangle are equal to the three sides of the other triangle.
4. Two right triangles are congruent if the hypotenuse and a side of one triangle are respectively equal to the hypotenuse and a side of the other triangle.
5. The angles opposite to equal sides of a triangle are equal.
6. The sides opposite to equal angles of a triangle are equal.

Quadrilaterals and Parallelograms:

1. A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and of equal length.
2. Diagonals of a rectangle are equal and bisect each other.
3. Diagonals of a rhombus bisect each other at right angles.
4. Diagonals of a square are equal and bisect each other at right angles.
5. In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and is half of it.
6. The line drawn through the mid point of one side of a triangle parallel to another side bisects the third side.
7. Triangle inequalities and relation between 'angle and facing side'; inequalities in a triangle.

Constructions:

1. Construction of a triangle given its base, sum of the other two sides and one base angle.
2. Construction of a triangle given its base, difference of the other two sides and one base angle.
3. Construction of a triangle given its two sides and a median corresponding to one of these sides.

4. Construction of a triangle equal in area to a given quadrilateral. (i) Proofs of constructions not required.
(ii) Constructions using ruler and compasses only.

Circles:

Definitions of circle related concepts, radius, circumference, diameter, chord, arc, subtended angle and simple numericals.

UNIT-V: COORDINATE GEOMETRY

- The Cartesian plane.
- Co-ordinates of a point, names and terms associated with the coordinate plane, notations, plotting points in the plane, graph of linear equations as examples.
- Focus on linear equations of the type $ax+by+c=0$ by writing it as $y=mx+c$ and linking with the chapter on linear equations in two variables.

UNIT-VI: TRIGONOMETRY

Trigonometric ratios:

- Formation of angles through rotation of a ray.
- Idea of positive and negative angles.
- Trigonometric ratios of an acute angle of a right angled triangle. Trigonometric ratio of 0,30,45,60,90.
- Given a trigonometric ratio, to find all other trigonometric ratios.
- Given a side and an angle of a right triangle, to find other sides and angles.

Trigonometric Identities:

- Very simple identity proof of trigonometric ratios.

UNIT-VII: MENSURATION

Areas:

- Area of a triangle using Hero's formula (without proof)

Surface Areas and Volumes:

- Concept of surface area.
- Surface areas and volumes of cubes, cuboids, spheres (including hemispheres) and right circular cylinders/cones.

UNIT-VIII: STATISTICS AND PROBABILITY

Statistics:

- Introduction to statistics.
- Collection of data, presentation of data – tabular form, ungrouped/ grouped, bar graphs.

Probability:

- History, repeated experiments and observed frequency approach to probability. Focus is on empirical probability. (A large amount of time to be devoted to group and to individual activities to motivate the concept; the experiments to be drawn from real-life situations, and from example used in the chapter on statistics).

Sample Blueprint : **No Change**

Subject : Science Class – 9

Chapter	Topic/Portion Deleted
Gravitation and Floatation	Thrust and pressure, Archimedes' principle, buoyancy, elementary idea of relative density. (Page No 59 – 65)
Sound	Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR, structure of the human ear (auditory aspect only). (Page No 95 – 115)
Matter in Our Surroundings	Definition of matter; Particle nature, solid, liquid and gas; characteristics - shape, volume, density; change of state melting (absorption of heat), freezing, evaporation (Cooling by evaporation), condensation, sublimation. (Page No 116 – 134)
Is Matter around us pure	(Page No 151 – 160)
Diversity in Living Organisms	Diversity of plants and animals - basic issues in scientific naming, basis of classification. (Page No 258 – 285)
Tissues	Structure and functions of animal and plant tissues (four types in animals; meristematic and permanent tissues in plants). (Page No 237 – 257)
Natural Resources	Air, Water, Soil. Air for respiration, for combustion, for moderating temperatures, movements of air and its role in bringing rains across India. Air, water and soil pollution (brief introduction). Holes in ozone layer and the probable damages. Bio-geo chemical cycles in nature; water, oxygen, carbon, nitrogen. (Page No 307 – 333)
Improvement in Food Resources	Plant and animal breeding and selection for quality improvement and management; use of fertilizers, manures; protection from pests and diseases; organic farming. (Page No 334 – 360)

EXPERIMENTS

4. To verify laws of reflection of sound.
8. To determine the velocity of a pulse propagated through a stretched string/slinky.
11. To separate the components of a mixture of sand, common salt and ammonium chloride (or camphor) by sublimation.
12. To determine the melting point of ice and the boiling point of water.
14. To study the characteristic of spirogyra/Agaricus, Moss/Fern, Pinus (either with male or female conifer) and an Angiospermic plant. Draw and give two identifying features of groups they belong to.
15. To observe and draw the given specimens-earthworm, cockroach, bony fish and bird.
For each specimen record
 - (a) one specific feature of its phylum
 - (b) one adaptive feature with reference to its habitat.

Revised SCIENCE Class - 9

Motion

Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform and uniformly accelerated motion, equations of motion by graphical method; elementary idea of uniform circular motion

Force and Newton's laws

Force and motion, Newton's laws of motion, inertia of a body, inertia and mass, momentum, force and acceleration, elementary idea of conservation of momentum, action and reaction forces

Gravitation and Floatation

Gravitation; universal law of gravitation, force of gravitation of the earth (gravity), acceleration due to gravity; mass and weight; free fall. Work, Energy and Power Work done by a force, energy, power; kinetic and potential energy; law of conservation of energy

Is Matter Around Us Pure

Elements, compounds and mixtures. Heterogenous and homogenous mixtures, colloids and suspensions.

Atoms and Molecules

Atoms and molecules. Law of constant proportions. Atomic and molecular masses. Mole Concept, Relationship of mole to mass of the particles and numbers. Valency. Chemical formula of common compounds.

Structure of the Atom

Electrons, protons and neutrons; Isotopes and isobars.

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles; chloroplast, mitochondria, vacuoles, ER, golgi apparatus; nucleus, chromosomes - basic structure, number.

Diversity in Living Organisms

Hierarchy of categories / groups, Major groups of plants (salient features) (Bacteria, Thalophyta, Bryophyta, Pteridophyta, gymnosperms and Angiosperms). Major groups of animals (salient features) (Non-chordates upto phyla and chordates upto classes).

Why Do We Fall Ill

Health and its failure. Infectious and Non-infectious diseases, their causes and manifestation. Diseases caused by microbes (Virus, Bacteria and protozoans) and their prevention, Principles of treatment and prevention. Pulse polio programme.

Weightage to Content Area :

Unit	Topic	Marks
1	Motion	10
2	Force and Laws of Motion	
3	Gravitation & Floatation	07
4	Work and Energy	07
5	Is matter around us pure?	08
6	Atoms and Molecules	08
7	Structure of the Atom	07
8	The fundamental unit of life	07
10	Diversity in living Organisms	08
11	Why do we fall ill	08
Total		70

Sample Blue Print 1 : Science - 9

Forms of Question/ Topic	Knowledge				Understanding				Application				HOTS				Evaluation				Total
	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	
Motion																					
Force and Laws of Motion																					10(5)
Gravitation & floatation	1(1)			3(1)		1(1)					1(1)										7(5)
Work and Energy	1(1)	1(1)											2(1)	3(1)							7(4)
Is matter around us pure?	1(1)				4(1)	1(1)							2(1)								8(4)
Atoms and Molecules	1(1)									3(1)	1(1)					1(1)				2(1)	8(5)
Structure of the Atom		1(1)												3(1)		1(1)				2(1)	7(4)
The fundamental unit of life	1(1)			3(1)												1(1)	2(1)				7(4)
Diversity in living Organisms							1(1)	2(1)		4(1)	1(1)										8(4)
Why do we fall ill	1(1)			3(1)								1(1)									8(4)
Sub - total	6(6)	2(2)		9(3)	4(1)	2(2)	1(1)	4(2)	6(2)	8(2)	3(3)	1(1)	4(2)	6(2)		2(2)	1(1)	4(2)			70(39)
Total	21(13)				21(9)				14(8)				7(5)				7(5)				

Note : 1) The figures in the bracket denotes the number of questions

2) This is only a sample Blue Print. The question setter may develop his/her own Blue Print as per the question design

Revised PRACTICALS 9

List of experiments

1. To prepare

- a) a true solution of common salt, sugar and alum
- b) a suspension of soil, chalk powder and fine sand in water
- c) a colloidal of starch in water and egg albumin in water and distinguish between these on the basis of
 - i) transparency ii) filtration
 - iii) stability

2. To prepare

- a) a mixture
- b) a compound using iron filings and sulphur powder and distinguish between these on the basis of:
 - i) appearance i.e., homogeneity and heterogeneity ii) behaviour towards a magnet iii) behaviour towards carbon disulphide a solvent.
 - iv) effect of heat.

3. To study the extent of cooling caused by evaporation on the following liquids, using a thermometer. Also to arrange these liquids in the increasing order of the extent of cooling produced

- i) Water ii) Alcohol
- iii) Ether

4. To determine the density of solid (denser than water) by using a spring balance and a measuring cylinder.

5. To establish the relation between the loss in weight of a solid when fully immersed in

- i) tap water
- ii) strongly salty water, with the weight of water displaced by it by taking at least two different solids.

6. To measure the temperature of hot water as it cools and plot a temperature-time graph.

7. To prepare stained temporary mounts of (a) onion peel and (b) human cheek cells and to record observations and draw their labeled diagrams.

8. To identify parenchyma and sclerenchyma tissues in plants, striped muscle fibers and nerve cells in animals, from prepared slides and to draw their labeled diagrams.

9. To observe the onion peel cells placed in hypertonic solution under the microscope and draw labelled diagram of the same.

Subject : Social Science Class – 9

Chapter	Topic / Portion Deleted for 2020-2021 academic session	Portion
5	Forest Society and Colonialism	History
7	Sports and Politics : The Story of Cricket	
8	Clothes and Culture	
3	Drainage	Geography
5	Vegetation and Wildlife	
1	Democracy : Significance and Relevance	Pol. Science
4	Food Security in India	Economics

Weightage to Content Area :

Unit	Topic Selected for 2020—2021 academic session	Marks
HISTORY : INDIAN AND THE CONTEMPORARY WORLD – I		
1.	The French Revolution.	12
2.	The Russian revolution.	
3.	Rise of Nazism.	
4.	Pastoralism in the Modern world.	12
6.	Peasants and Farmers.	
	Total	24
GEOGRAPHY : INDIA – LAND AND THE PEOPLE		
1.	India – Size and Location.	11
2.	India – Physical Features.	
3.	Drainage	07
4.	Climate of India.	
5.	Population.	04
6.	Map work.	05
	Total	27
POLITICAL SCIENCE : DEMOCRATIC POLITICS – I		
1.	Designing of Democracy in India.	03
2.	Electoral Politics in India.	06
3.	Institutions of Parliamentary Democracy.	
4.	Rights in a Democracy.	03
	Total	12
ECONOMIC : UNDERSTANDING ECONOMIC DEVELOPMENT – I		
1.	The story of Village Economy.	06
2.	Human Resources.	
3.	Poverty as a challenge facing India.	06
	Total	12
DISASTER MANAGEMENT		
1.	Disaster Management.	05
2.	Road Safety.	
	Total	05

Weightage to Form of Questions : **No change**

Sample Blue print: Social Science 9

[illegible]

UNDERSTANDING ECONOMIC DEVELOPMENT													
The Story of Village Economy	1(1)				1(1)								3(3)
Human Resources			3(1)										3(1)
Poverty as a challenge Facing India						2(1)						4(1)	6(2)
DISASTER MANAGEMENT													
Disaster Management	1(1)								1(1)				2(2)
Road Safety	1(1)					2(1)							3(2)
Sub-Total	12(12)	6(3)	6(2)		8(8)	6(3)	6(2)	4(1)	3(3)	4(2)	5(1)	1(1)	4(1)
Total	24(17)			24(14)			12(6)			16(6)			80(44)
												4(1)	

Note : 1) The figures in the bracket denotes the number of questions.

2) This is only a sample Blue Print. The question setter may develop his/her own Blue Print as per the question design.

Subject: Alternative English Class – 9

Unit	Topic/Portion Deleted
I	Prose: 1. Tulips
II	Poetry: 1. The Arrow and The Song

Weightage to content area of selected portion

Unit		Marks
Section A	GRAMMAR AND COMPOSITION: 1. Parts of Speech 2. Articles 3. Tenses 4. Essay Writing 5. Letter Writing	25
Section B	POETRY 1. The Pigtail 2. Lean Out of the Window 3. How Beautiful Is The Rain 4. To Daffodils 5. Heights and Depths	20
Section C	PROSE: 1. Wonders Are Many 2. The Exploits of Hanuman 3. The Conjuror's Revenge 4. Exploring Space 5. Albert Schweitzer 6. Man of Everest	25
Section D	RAPID READER Around The World In Eighty Days – Jules Verne	10
	Total	80

Weightage to Form of Questions:

Sl/no.	Form of Questions	No. of Questions	Marks for each question	Total Marks
2.1	Objective Type	19	1	19
2.2	Very Short Answer	05	1	05
2.3	Short Answer I	09	2	18
2.4	Short Answer II	06	3/4	20

2.5	Long Answer	03	6	18
Total		42		80

Sample Blueprint : **No change.**

