



SINDH BOARD OF TECHNICAL EDUCATION

ST-22, BLOCK-6 MAIN UNIVERSITY ROAD GULSHAN-E-IQBAL, KARACHI
www.sbte.edu.pk Phone No. 99244278, Ext: 338, 99243329-30 Fax. 99244166

NOTIFICATION

In compliance to the orders of Honorable High Court of Sindh Circuit Court, Hyderabad Sindh dated 02.08.2019 passed in CP no.1817/2016,2894/2017,1890/2019, and School Education & Literacy Department, Govt: of Sindh, Karachi notification, dated December 09th 2019, the Sindh Board of Technical Education, Karachi is placed to adopted / approve the following Scheme of Studies and bifurcation of the subjects Mathematics, Physics & Chemistry for Class IX & X and uniformity in marks of Technical School Certificate (TSC Part-I and Part II) in line with National Scheme of Studies developed by the Directorate of Curriculum and Research (DCAR).

Scheme of Studies for Technical School Certificate (TSC) Grade IX – X

Academic Year 2020-21

S.No.	Subject	Marks						
		Grade IX			Grade X			Total
1	English	100			100			200
2	Sindhi (MT)/ Urdu (MT) History Geography of Pakistan(Foreign students only)	75			-			75
3	Sindhi (Salees)/ Urdu (Salees) (NMT)	-			75			75
4	Islamiat / Ethics for non- Muslims	75			-			75
5	Pakistan Studies	-			75			75
6	Mathematics	75			75			150
7	Phycis(Th+Pr)	(60+15)=75			(60+15)=75			150
8	Chemistry(Th+Pr)	(60+15)=75			(60+15)=75			150
9	Technical Drawing (Pr)	S 15	F 35	T 50	S 15	F 35	T 50	100
10	Trade Course (Th+Pr)	(50+100)=150			(50+100)=150			300
TOTAL		675			675			1350

Pass Marks: Theory: 33 % Practical: 50 %

MT= Mother Tongue, NMT= Non Mother Tongue, Th= Theory & Pr=Practical

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Scheme of studies & bifurcation of the Textbook for Mathematics Grade IX-X Justification of Grade-wise bifurcation of Mathematics for Academic Year 2020-21

Change / Rearrangement

Rationale:

Unit 6 "Algebraic sentences" is Shifted in Grade X.

The bifurcation of proposed scheme prepared according to the national curriculum 2000 as well as existing textbook of mathematics for grade IX-X.

Unit 12 "demonstrative Geometry" has been distributed in two parts

To introduce Geometry in grade-IX, and continue in grade- X, it is proposed as follows:
First Part of unit 12 "Theorem based on line" is proposed for study in grade-IX.
The second part of unit 12 "Theorem based on triangle" is proposed for study in grade-X, in the light of curriculum and the weightage of units.

Units of Mathematics for Grade – IX

Unit 1	Sets
Unit 2	System of real Numbers, Exponents and Radicals
Unit 3	Logarithms
Unit 4	Algebraic Expression
Unit 5	Factorization, HCF, LCM, Simplification and Square Roots
Unit 7	Matrices
Unit 11	Fundamental Concepts of Geometry
Unit 12	Demonstrative Geometry – Theorems based on lines

Units of Mathematics for Grade – X

Unit 6	Algebraic Sentences
Unit 8	Elimination
Unit 9	Variations
Unit 10	Information Handling
Unit 12	Demonstrative Geometry – Theorems based on triangles and other polygon
Unit 13	Circle
Unit 14	Practical Geometry
Unit 15	Trigonometry



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Scheme of studies & bifurcation of the Textbook for Physics Grade IX-X Justification of Grade-wise bifurcation of Physics for Academic Year 2020-21

Change / Rearrangement

Rationale:

Unit 9 "Simple Machines" is Shifted to Grade X.

Students have already studied "Simple Machines" in previous grades; hence it is low difficulty level unit. As their higher difficulty level chapters in the grade-X, therefore Unit -9 "Simple Machines" is shifted to Grade-X this will balance the difficulty level among unit.

Unit 11 "Heat" is Shifted to Grade-IX

The Unit 11 "Heat" is shifted to Grade-IX as it is more related with the unit "Properties of Matter".

Units of Physics for Grade – IX

Unit 1	Introduction
Unit 2	Measurement
Unit 3	Kinematics of Linear Motion
Unit 4	Motion and Force
Unit 5	Vectors
Unit 6	Equilibrium
Unit 7	Circular Motion & Gravitation
Unit 8	Work, Power and Energy
Unit 10	Properties of Matter
Unit 11	Heat

Units of Physics for Grade - X

Unit 9	Simple Machines
Unit 12	Waves and Sound
Unit 13	Propagation and Reflection of light
Unit 14	Refraction of Light and Optical Instruments
Unit 15	Nature of Light and Electromagnetic Spectrum
Unit 16	Electricity
Unit 17	Magnetism and Electro Magnetism
Unit 18	Electronics
Unit 19	Nuclear Physics

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No.SBTE/CCRD/2020/220

Dated: 29TH January 2020

Scheme of studies & bifurcation of the Textbook for Chemistry Grade IX-X Justification of Grade-wise bifurcation of Chemistry for Academic Year 2020-21

Change / Rearrangement	Rationale:
Unit No. 01 to unit No.10 are Proposed for study in Grade IX.	The content weightage, course workload on students and Unit linkages are already in progression, therefore initial ten units are assigned in grade IX.
Unit 11 to unit No. 18 are Proposed for study in Grade-X	The rest of eight units are proposed for study in grade X as the difficulty level and workload is equal to initial ten units. There is proper linkages among the units.

Units of Chemistry for Grade – IX

Unit 1	Introduction to Chemistry
Unit 2	Chemical Combination
Unit 3	Atomic Structure
Unit 4	Periodicity of Elements
Unit 5	Chemical Bonding
Unit 6	State of Matter
Unit 7	Solution and Suspension
Unit 8	Electro Chemistry
Unit 9	Acids, Bases and Salts
Unit 10	Chemical Energetics

Units of Chemistry for Grade – X

Unit 11	Hydrogen and Water
Unit 12	Carbon, Silicon and Compounds
Unit 13	Nitrogen and Oxygen
Unit 14	Sulphur and Compounds
Unit 15	Halogens
Unit 16	Metals and their Extraction
Unit 17	Organic Chemistry
Unit 18	Chemical Industries

(QAZI ARIF ALI)
Director Research

Copy for information to:

1. PS, Secretary, Universities and Boards, Karachi.
2. PS to Managing Director, Sindh TEVTA HQ, Karachi.
3. PA to Chairman, SBTE
4. Director (Academics & Training), Sindh TEVTA HQ, Karachi.
5. Secretary, SBTE, Karachi.
6. Controller of Examinations, SBTE, Karachi.
7. Assistant Controller of Examination (Secrecy Section), SBTE, Karachi
8. Registrar, SBTE, Karachi
9. Regional Officer, Regional office, Sukkur.
10. IT Manager, SBTE, Karachi
11. Deputy Secretary Certificate, SBTE, Karachi
12. All Affiliated Technical School Certificate (TSC) Schools / institute.

(S. AKHTAR ALI SHAH)
Deputy Director Research