ACADEMIC DEVELOPMENT UNIT (ADU)

SYLLABUS BASED ON ALP FOR QAT 2020-21 FOR CLASS NURSERY TO 10th

PUNJAB EDUCATION FOUNDATION
ALP Syllabus Link: https://pctb.punjab.gov.pk/info_desk

Note: According to previous practice all papers excluding languages are bilingual.

Oral QAT will be conducted for Nursery/Prep and class 1.

ALP is based on PCTB text books for the year 2020-21

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Urdu

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<td>Exercise: 5.1, Q: 1 (i), Q: 3 (i, vi), Q: 4 (i), Q: 6 (i), Exercise: 5.2, Q: 1 (v), Q: 2 (iv), Exercise: 5.3, Q: 1 (i), Q: 2 (iii), Q: 4 (iii), Exercise: 5.4, Q: 3 (iii), Exercise: 5.5, Q: 3 (i), Q: 5 (ii)</td>
</tr>
<tr>
<td>Exercise: 5.1, Q: 1 (ii, iii, iv), Q: 3 (ii, iii, iv, v), Q: 4 (iii), Q: 6 (ii), Exercise: 5.2, Q: 1 (vi-viii), Q: 3, Q: 4 (ii), Exercise: 5.3, Q: 1 (ii, iii, v), Q: 2 (ii), Q: 4 (v), Exercise: 5.4, Q: 5 (ii), Exercise: 5.5, Q: 3 (ii, iii), Q: 5 (iii), Miscellaneous Exercise: 5, Q: 1, Q: 2</td>
</tr>
</tbody>
</table>

**UNIT - 6: BASIC STATISTICS**

Exercise: 6.1, Q: 3, Exercise: 6.2, Q: 11, 12, Exercise: 6.3, Q: 4, Q: 7, Miscellaneous Exercise: 6, Q: 1, Q: 2

Note: 50% of ALP, Chapter # 1 to Chapter # 6.

| UNIT - 1: ALGEBRAIC FORMULAS AND APPLICATIONS |
| Exercise: 1.1, Q: 1, 8,11, 14, 15, 27, 32, Exercise: 1.2, Q: 1, 8, 14, 21, Exercise: 1.3, Q: 1 (ii), Q: 2 (iii), Q: 3 (iv), Q: 5 |
| Exercise: 1.1, Q: 3, 5, 9, 16, 19, 20, 28, 31, Exercise: 1.2, Q: 3, 5, 9, 11, 16, 18, Exercise: 1.3, Q: 2 (vi), Q: 3 (ii, vi, viii), Q: 8, 9, Review Exercise: 1, Q: 1 |

| UNIT - 2: FACTORIZATION |
| Exercise: 2.1, Q: 1, 11, 16, Exercise: 2.2, Q: 2, 12, Exercise: 2.3, Q: 7, 9, 20, Exercise: 2.4, Q: 1, 15, 22, Exercise: 2.5, Q: 3, 6, 19 |
| Exercise: 2.1, Q: 3, 6, 8, 13, Exercise: 2.2, Q: 4, 8, 11, Exercise: 2.3, Q: 1, 11, 16, Exercise: 2.4, Q: 3, 8, 10, 13, 17, 21, Exercise: 2.5, Q: 1, 10, 12, 16, 18, Review Exercise: 2, Q: 1 |

| UNIT - 3: ALGEBRAIC MANIPULATION |
| Exercise: 3.1, Q: 1, 11, 15, Exercise: 3.2, Q: 1, 10, Exercise: 3.3, Q: 1, 9, 15, Exercise: 3.4, Q: 1, 8, 17, Exercise: 3.5, Q: 2, 12, Exercise: 3.6, Q: 4, 5, 9 |
| Exercise: 3.1, Q: 2, 5, 7, 12, Exercise: 3.2, Q: 3, 6, 9, Exercise: 3.3, Q: 3, 7, 12, Exercise: 3.4, Q: 3, 7, 9, 12, 15, Exercise: 3.5, Q: 1, 6,7, 11, Exercise: 3.6, Q: 1, 8, 12, Review Exercise: 3, Q: 1 |

| UNIT - 4: LINEAR EQUATIONS AND INEQUALITIES |
| Exercise: 4.1, Q: 1 (ii), Q: 3, 10, 18, Exercise: 4.2, Q: 3, 12, 16 |
| Exercise: 4.1, Q: 1 (iii), Q: 5, 8, 16, 20, Exercise: 4.2, Q: 6, 9, 15, Review Exercise: 4, Q: 1 |

| UNIT - 5: QUADRATIC EQUATIONS |
| Exercise: 5.1, Q: 1, 8, 15, 19, 25, Exercise: 5.2, Q: 3, 12, Exercise: 5.3, Q: 2 |
| Exercise: 5.1, Q: 2, 9, 12, 13, 14, 18, 24, Exercise: 5.2, Q: 1, 4, 8, 9, Exercise: 5.3, Q: 8, Review Exercise: 5, Q: 1 |

Note: 50% of ALP, Chapter # 1 to Chapter # 5.
CHAPTER 10: SIMPLE HARMONIC MOTION AND WAVES

Simple Harmonic Motion (Pg. 2), Motion of Mass Attached to a Spring (Pg. 2, 3),
Motion of a Simple Pendulum (Pg. 4-6), Wave Motion (Pg. 7, 8),
Activity: 10.2 (Pg. 7),
Types of Mechanical Waves (Pg. 8-11), Relation between Velocity, Frequency and
Wavelength (v= f &lambda;) (Pg. 11-12),
Examples: 10.1, 10.2 (Pg. 6, 12)

Exercise:
MCQs: (i, ii, iv-vi) (Pg. 16), Review Questions: (10.1, 10.4, 10.5) (Pg. 17), Numerical Problems: (10.1-10.3) (Pg. 17, 18)
Review Questions: (10.2, 10.7) (Pg. 17), Numerical Problem: (10.4) (Pg. 18)

CHAPTER 11: SOUND WAVES

Sound Waves (Pg. 20), Sound Requires Material Medium for its
Propagation (Pg. 21), Longitudinal Nature of Sound Waves (Pg. 21, 22),
Characteristics of Sound
(Loudness, Pitch, Quality, Intensity) (Pg. 22-24), Sound Intensity Level
(Pg. 24, 25),
Speed of Sound (Pg. 27), Audible Frequency Range (Pg. 30,31),
Examples: 11.1, 11.2 (Pg. 25-28)

Exercise:
Review Questions: (11.4, 11.5, 11.7-11.11) (Pg. 34),
Numerical Problems: (11.1-11.4, 11.6) (Pg. 35)
MCQs: (i-vii) (Pg. 33), Review Questions: (11.1, 11.2) (Pg. 33, 34),
Numerical Problem: (11.9) (Pg. 35)

CHAPTER 12: GEOMETRICAL OPTICS

Spherical Mirrors (Pg. 38-40), Image Location by Spherical Mirror
Formula (Pg. 40, 41),
Sign Conventions (Pg. 41), Refraction of Light (Pg. 42, 43), Laws of
Refraction (Pg. 43), Refractive Index (Pg. 43), Total Internal Reflection (Pg. 44),
Refraction through
Prism (Pg. 46, 47), Lenses (Pg. 47, 48), Image Location by Lens
Equation (Pg. 51, 52),
Sign Conventions for Lenses (Pg. 52), Examples: 12.1-12.6 (Pg. 41, 42, 44, 52, 53)

Exercise:
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(Pg. 65), Numerical Problems: (12.2-12.5, 12.8-12.10) (Pg. 67)
MCQs: (i-vii) (Pg. 64), Review Questions: (12.4, 12.7, 12.12) (Pg. 65),
Numerical Problem: (12.1) (Pg. 66)

CHAPTER 13: ELECTROSTATICS

Electrostatic Induction (Pg. 70, 71), Coulomb’s Law (Pg. 73, 74),
Electric Field and
Electric Field Intensity (Pg. 74-76), Electrostatic Potential (Pg. 76, 77),
Capacitors
and Capacitance (Pg. 77, 78), Combination of Capacitors (Pg. 79),
Capacitors in
Parallel (Pg. 79, 80), Capacitors in Series (Pg. 80, 81), Uses of
Capacitors (Pg. 83),
Examples: 13.1-13.4 (Pg. 74, 78-82)
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Questions:
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Short Answer Questions (2, 3, 5-9,11) (Pg. 18); Extensive Questions (3, 4) (Pg. 18); Numericals (1, 4) (Pg. 18-19)

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Short Answer Questions (1-9) (Pg. 48); Extensive Questions (1-5) (Pg. 49);
Numericals (1, 4); (Pg. 50)

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Short Answer Questions (5-11) (Pg. 78);
Extensive Questions (3, 5, 7-10, 12) (Pg. 79)

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Exercise Question No. 1, 2, 3 (i-iv), 4 (i-ii, v) (Pg. 108, 109)

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Exercise Question No. 5-9 (Pg. 127)
Exercise Question No. 1, 2 (i-iv), 3 (ii-v), 4 (i-ix) (Pg. 126, 127)
لئے نوہ: تمام مضامین سوالات اس اصل 50 % کے مقابلے دیے گئے ہیں