ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Higher Secondary School Certificate
(HSSC)

Examination syllabus

Mathematics
XI

Based on Provincial revised curriculum (Sindh)

You can approach us:

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PREFACE

The Ziauddin University Examination Board (ZUEB) was established under **Sindh ACT XLI 2018**, with the primary objective of enhancing the quality of education in Sindh. ZUEB is responsible for administering examinations for the **Secondary School Certificate (SSC)** and **Higher Secondary School Certificate (HSSC)** in alignment with the most recent revisions to the **National Curriculum**, as outlined by the **Directorate of Curriculum Assessment and Research (DCAR), Sindh**. Through its ordinance, ZUEB is mandated to provide examination services for both English, Urdu, and Sindhi medium candidates from private schools across Sindh. This examination syllabus reflects ZUEB's dedication to achieving the educational goals set by the provincial authorities.

In collaboration with subject professors, ZUEB has developed a comprehensive syllabus for each subject. It is important to distinguish between the syllabus and the curriculum. The syllabus serves as a guide for both teachers and students, outlining the key areas of focus within the subject. It provides students with a clear understanding of what is expected of them in their studies and helps them prepare effectively for their exams.

This examination syllabus incorporates all cognitive outcomes derived from the **Provincial Curriculum Statement**, ensuring that assessments are both valid and reliable. While the focus is primarily on the cognitive domain, significant emphasis is placed on the application of knowledge and understanding.

The syllabus is made available to all stakeholders via the ZUEB website to assist affiliated schools in planning their teaching. It is crucial to note that the syllabus, rather than the prescribed textbook, forms the foundation of ZUEB examinations. Additionally, this syllabus supports the development of learning materials for both students and teachers. ZUEB remains committed to supporting students undertaking the SSC and HSSC courses by facilitating their learning outcomes through this detailed syllabus document.

To further assist in the learning process, ZUEB provides a dedicated **e-resource tab** on its website, offering both text-based and video content on various subjects. These 15-20 minute instructional videos, created around key subject concepts, allow students to learn at their own pace and convenience. The videos can be used as a reinforcement tool to revisit lessons already taught or as pre-lesson material. This initiative is an ongoing effort, and new videos will continue to be uploaded.

We encourage all students and educators to make the most of these resources for a more enriched and flexible learning experience.

Sincerely,

Shahbaz Nasim
Head – Measurement & Testing
Ziauddin University Examination Board

Reviewed by Beena Kohati-Bilal
Head - Curriculum & Assessment
Ziauddin University Examination Board
29.01.2025

Rationale For The Reviewed Provincial Curriculum

The process of revising the National Curriculum 2006 began in August 2004, when the newly elected government of Pakistan initiated education reforms across the country. These reforms included the introduction of a new National Education Policy, a National Education Census, and a revision of curricula (Ministry of Education, 2009).

In practice, the overhaul of the secondary school curriculum began in 2006, leading to a review of the scheme of studies for classes I to XII and the revision of curricula for 25 compulsory subjects.

The 18th Amendment to the Constitution of Pakistan, enacted in 2010, significantly altered the federal-provincial relationship by abolishing the "concurrent legislative list." This amendment granted provinces greater legislative and financial autonomy in sectors such as education and health. The most notable implication of the 18th Amendment for education was the transfer of responsibility for curriculum development, syllabus planning, policy formation, and educational standards to the provinces, marking a significant step forward for education.

In Sindh, the School Education Department tasked a Curriculum Review Team with revising the National Curriculum 2006 for all subjects. The goal was to create a curriculum better suited to the needs of students and teachers while aligning with the principles of the 18th Amendment. Subject-specific curriculum review committees were established to critically examine and align the curriculum's content, both contextually and textually, ensuring coherence across various subjects. The Bureau of Curriculum (BoC) played a crucial role in organizing workshops and meetings in Hyderabad to facilitate the completion of this task. The support of numerous educationists, researchers, and teachers was invaluable in successfully revising the curriculum.

The revised National Curriculum, along with the original version, is available on the DCAR website at http://dcar.gos.pk/BoC_Other_Pages/curriculum_dev.html for easy access.

The Ziauddin University Examination Board (ZUEB) SSC and HSSC syllabi are developed in accordance with the Sindh Revised Curriculum. To date, textbooks for various subjects have been developed based on the revised curriculum.

DOMAIN A: NUMBERS & ALGEBRA

Complex Number:

[SLO:M-11-A-01]: Define $z = a - ib$ as the complex conjugate of $z = a + ib$

[SLO:M-11-A-02]: Define $|z| = \sqrt{a^2 + b^2}$ as the absolute value or modulus of a complex number $z = a + ib$.

[SLO:M-11-A-03]: Examine the condition for equality of complex numbers.

[SLO:M-11-A-04]: Perform basic operations on complex numbers.

[SLO:M-11-A-05]: Verify triangle inequality of complex numbers.

[SLO:M-11-A-06]: Represent complex number to argand diagram, complex or z-plane.

[SLO:M-11-A-07] Solve the simultaneous linear equations with complex coefficients. For example,

$$5z - (3 + i)w = 7 - i$$
$$(2 - i)z + 2iw = -1 + i$$

[SLO:M-11-A-08]: Write the polynomial P(z) as a product of linear factors. For example,

$$z^2 + a^2 = (z + ia)(z - ia)$$

$$z^3 - 3z^2 + z + 5 = (z + 1)(z - 2 - i)(z - 2 + i)$$

[SLO:M-11-A-09]: Solve quadratic equation of the form $pz^2 + qz + r = 0$ by completing squares, where p, q, r are real numbers and z is a complex number.

[SLO:M-11-A-10]: Explain the polar coordinates system.

[SLO:M-11-A-11]: Describe the polar representation of a complex number.

[SLO:M-11-A-12]: Apply the operations with complex numbers in a polar representation.

[SLO:M-11-A-13]: State De-Moivre's theorem and its use.

[SLO:M-11-A-14]: Demonstrate simple equations and in-equations involving complex numbers in polar form.

[SLO:M-11-A-15]: Apply concepts of complex numbers to solve real-life problems (such as cryptography, wave phenomena, calculates voltage, current, circuits, the velocity and pressure of the fluid).

Matrices & Determinants

[SLO:M-11-A-16]: Apply matrix operations (addition/subtraction and multiplication of matrices) with real and complex entries.

[SLO:M-11-A-17]: Explain types of matrices (including, symmetric, skew-symmetric, Hermitian, skew-Hermitian, periodic, idempotent, involutory and nilpotent matrix)

[SLO:M-11-A-18]: Show that in matrix algebra commutative law:

- holds under addition, i.e. $A + B = B + A$
- does not hold under multiplication i.e. $AB \neq BA$, in general.

[SLO:M-11-A-19]: Define minors and cofactors, and use them to evaluate the determinants of 3×3.

[SLO:M-11-A-20]: State properties of determinants, and use them to evaluate the determinants of 3×3.

[SLO:M-11-A-21]: Define elementary row operations, echelon and reduced echelon form of a matrix, and use them to find the inverse and the rank of a matrix.

[SLO:M-11-A-22]: Solve a system of 3×3 non-homogeneous linear equations by using matrix inversion method and Cramer's rule.

[SLO:M-11-A-23]: Solve a system of three homogeneous linear equations in three unknowns using the Gauss elimination method and Gauss-Jordan method.

[SLO:M-11-A-24]: Explain a consistent and inconsistent system of linear equations and demonstrate through examples.

[SLO:M-11-A-25]: Apply concepts of matrices to solve real-life problems such as (graphic design, data encryption, seismic analysis, cryptography, transformation of geometric shapes, social network analysis).

Sequences and Series

[SLO:M-11-A-26]: Define sequence, series and their types.

[SLO:M-11-A-27]: Solve problems by analysing arithmetic sequences, arithmetic mean(s) and series up to n terms.

[SLO:M-11-A-28]: Solve problems by analysing geometric sequences, geometric mean(s) and series up to n and infinite terms.

[SLO:M-11-A-29]: Solve problems by analysing harmonic sequences, mean(s) and series up to n terms.

[SLO:M-11-A-30]: Explain relations among arithmetic geometric and harmonic means.

[SLO:M-11-A-31]: Find sum of:

- the first n natural numbers $(\sum n)$.
- the squares of the first n natural numbers $(\sum n^2)$
- the cubes of the first natural numbers $(\sum n^3)$

[SLO:M-11-A-32]: Apply concepts from sequence and series to solve real-life problems (such as simple interest on loan, leasing of vehicles, investment, depreciation, Investment planning on compound

interest, projectile motion, gaming strategy, health care management, web page design, traffic modelling).

Mathematical Induction

[SLO:M-11-A-33]: Describe a mathematical argument, identify the base case, induction of hypothesis and a precise conclusion.

[SLO:M-11-A-34]: Apply the principle of mathematical induction to prove statements, identities, divisibility of numbers and summation formulae.

[SLO:M-11-A-35]: Evaluate and justify conclusions, communicating a position clearly in an appropriate mathematical form in daily life.

Binomial Theorem

[SLO:M-11-A-36]: State and apply the binomial theorem to expand expressions of the form $(a + b)^n$ where n is a positive integer.

[SLO:M-11-A-37]: Calculate binomial coefficients using Pascal's triangle.

[SLO:M-11-A-38]: Expand using the binomial theorem, and use appropriate techniques to simplify the expression.

[SLO:M-11-A-39]: State and apply the binomial theorem to expand expression of the form $(1 + x)^n$,

$|x| < 1$, where x is negative or fraction.

[SLO:M-11-A-40]: Find an approximate value using binomial theorem.

[SLO:M-11-A-41]: Use binomial theorem to find the remainder when a number to some large exponent is divided by a number.

[SLO:M-11-A-42]: Use binomial theorem to find the last digit of a number, test the divisibility by a number and compare two large numbers.

[SLO:M-11-A-42]: Use binomial theorem to find the last digit of a number, test the divisibility by a number and compare two large numbers.

Division of polynomial

[SLO:M-11-A-44]: Divide a polynomial of degree up to 4 by a linear and quadratic polynomial to identify quotient and remainder.

[SLO:M-11-A-45]: Demonstrate and apply remainder theorem.

[SLO:M-11-A-46]: Analyse and apply factor theorem to factorise a cubic polynomial

[SLO:M-11-A-47]: Express an algebraic fraction into partial fraction involving all the four cases:

- when the factors in the denominator are linear and distinct
- when the factors in the denominator are linear and repeated linear
- when the factors in the denominator are irreducible quadratic and distinct
- when the factors in the denominator are irreducible quadratic and quadratic repeated

[SLO:M-11-A-48]: Apply concepts of remainder and factor theorem to solve real-life problems (such as polynomial regression, signal processing, and coding theory).

DOMAIN B: GEOMETRY

Vectors in Space

[SLO:M-11-B-01]: Recognize rectangular coordinate system in space.

[SLO:M-11-B-02]: Explain unit vectors and components of a vector u, i, j and k.

[SLO:M-11-B-03]: Find the magnitude of a vector.

[SLO:M-11-B-04]: Apply all fundamental mathematical operations for vectors in plane space which in the plane, have already been discussed.

[SLO:M-11-B-05]: Demonstrate and prove properties of Vector Addition.

- Commutative law for vector addition
- Associative law for vector addition
- 0 as the identity for vector addition
- -A as the inverse for A

[SLO:M-11-B-06]: Explain dot or scalar product of two vectors and give its geometrical interpretation.

[SLO:M-11-B-07]: Prove that:

- $i \cdot i = j \cdot j = k \cdot k = 1$
- $i \cdot j = j \cdot k = k \cdot i = 0$

[SLO:M-11-B-08]: Express dot product in terms of components.

[SLO:M-11-B-09]: Find the condition for orthogonality of two vectors.

[SLO:M-11-B-10]: Use dot product to find the angle between two vectors.

[SLO:M-11-B-11]: Find the projection of a vector along another vector.

[SLO:M-11-B-12]: Solve real life problem base on dot product.

[SLO:M-11-B-13]: Explain the cross or vector product of two vectors and give its geometrical interpretation.

[SLO:M-11-B-14]: Prove that:

- $i \times i = j \times j = k \times k = 0$
- $i \times j = -j \times i = k$
- $j \times k = -k \times j = i$
- $k \times i = -i \times k = j$

[SLO:M-11-B-15]: Apply a cross product to find the angle between two vectors.

[SLO:M-11-B-16]: Solve daily life problems based on cross product.

Scalar Triple Product

[SLO:M-11-B-17]: Describe scalar triple product of vectors.

[SLO:M-11-B-18]: Express scalar triple product of vectors in terms of components (determinant form).

[SLO:M-11-B-19]: Prove that:

- $i \cdot (j \times k) = j \cdot (k \times i) = k \cdot (i \times j) = 1$
- $i \cdot (k \times j) = j \cdot (i \times k) = k \cdot (j \times i) = -1$

[SLO:M-11-B-20]: Prove that dot and cross are inter-changeable in scalar triple product.

[SLO:M-11-B-21]: Find the volume of:

- a parallelepiped
- tetrahedron, determined by three given vectors

[SLO:M-11-B-22]: Define coplanar vectors and find the condition for planarity of three vectors.

[SLO:M-11-B-23]: Apply concepts of vectors in space to solve real-life problems such as (graphing complex 3D motion, vector operations in engineering and computer graphics, practical proficiency for work, flux, and circulation).

Fundamental Law of Trigonometry

[SLO:M-11-B -24]: Explain distance formula between two points in 2-D, and then establish fundamental law of trigonometry.

[SLO:M-11-B-25]: Apply fundamental law and its deductions to derive trigonometric ratios of allied angles, double angle, half angle and triple angle identities.

[SLO:M-11-B-26]: Express the product (of sines and cosines) as sums or differences (of sines and cosines) and vice versa.

Trigonometric Functions

[SLO:M-11-B -27]: Find the domain and range of the trigonometric functions.

[SLO: M-11-B -28]: Discuss even, odd functions, the periodicity and amplitude of trigonometric functions.

[SLO: M-11-B -29]: Find the maximum and minimum value of a given function of the type:

- $a + b\,sin_\theta$
- $a + b\,cos_\theta$
- $a + bcos\,(c_\theta + d)$

the reciprocals of above, where a, b, c and d are real numbers.

Graphs of Trigonometric Functions

[SLO:M-11-B-30]: Graph and analyse the trigonometric functions sine, cosine, and tangent to solve problems.

[SLO:M-1l-B -31]: Explain the properties of graphs of $sin\theta$, $cos\theta$, and $tan\theta$.

[SLO:M-11-B -32]: Apply the concepts of trigonometric functions, identities, graphs, periodicity, even odd functions, extreme values to solve real-life problems, (such as distance, elevation, and direction of tall structures, navigation and mapping, lengths of irregular shapes, graphs to visualize and predict patterns in data, frequency and periodic length of Ferris wheel, the ideal angle for solar panel placement).

DOMAIN C: INFORMATION HANDLING

Permutation and Combination:

[SLO:M-11-C-01]: Explain and solve problems that involve the fundamental counting principle.

[SLO:M-11-C-02]: Explain and solve problems that involve permutations.

[SLO:M-11-C-03]: Explain and Solve problems that involve combinations.

[SLO:M-11-C -04]: Apply the concepts of permutation and combination to real-life problems such as (cryptography, calculating the number of possible DNA sequences or protein structures, choosing different sets of songs for certain occasions).

Laws of Probability

[SLO:M-11-C-05]: Apply laws of probability (addition/ multiplication) to solve problems involving mutually exclusive events (such as left and right-hand turns, tossing a coin, even and odd numbers on a die).

DEFINITIONS OF COGNITIVE LEVELS

Remember

Remembering is the act of retrieving knowledge and can be used to produce things like definitions or lists. The student must be able to recall or recognise information and concepts. The teacher must present information about a subject to the student, ask questions that require the student to recall that information and provide written or verbal assessment that can be answered by remembering the information learnt.

Question Stems

- Can you name all the …?
- Describe what happens when …?
- How is (are) …?
- How would you define …?
- How would you identify …?
- How would you outline …?
- How would you recognise…?
- List the … in order.
- What do you remember about …?
- What does it mean?
- What happened after?
- What is (are) …?
- What is the best one?
- What would you choose …?
- When did …?
- Where is (are) …?
- Which one …?
- Who spoke to …?
- Who was …?
- Why did …?

Understand

The next level in the taxonomic structure is Understanding, which is defined as the construction of meaning and relationships. Here the student must understand the main idea of material heard, viewed, or read and interpret or summarise the ideas in their own words. The teacher must ask questions that the student can answer in their own words by identifying the main idea.

Question Stems

- Can you clarify…?
- Can you illustrate …?
- Condense this paragraph.
- Contrast …
- Does everyone think in the way that … does?
- Elaborate on …
- Explain why …
- Give an example
- How can you describe...?
- How would you clarify the meaning...?
- How would you compare …?
- How would you differentiate between …?
- How would you describe…?
- How would you generalise…?
- How would you identify …?
- Is it valid that …?
- Is this the same as …?
- Outline …
- Select the best definition...
- State in your own words...
- This represents …
- What are they saying?
- What can you infer from …?
- What can you say about …?
- What could have happened next?
- What did you observe?

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What does this mean?
What expectations are there?
What information can you infer from…?
What is the main idea of …?
What restrictions would you add?
What seems likely?
What seems to be …?
What would happen if …?
What might happen if …?
Which are the facts?
Which statements support …?

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Apply

The third level in Bloom’s taxonomy, Applying, marks a fundamental shift from the pre-Bloom’s learning era because it involves remembering what has been learnt, having a good understanding of the knowledge, and applying it to real-world exercises, challenges or situations. Students must apply an abstract idea in a concrete case to solve a problem or relate it to prior experience. The teacher must provide opportunities for students to use theories and problem-solving techniques in new situations and review and check their work. Assessment questions should be provided that allow students to define and solve problems.

Question Stems

Can you group by characteristics such as …?
Choose the best statements that apply...
Clarify why …
Do you know of another instance where …?
Draw a story map...
Explain why a character acted in the way that he did...
From the information given, can you develop a set of instructions about …?
How would you develop …?
How would you change …?
How would you demonstrate…?

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Analyse

Analysing is the cognitive level where students can take the knowledge they have remembered, understood and applied, then delve into that knowledge to make associations, discernments or comparisons. Students should break down a concept or idea into parts and show relationships between these parts. Teachers must give students time to examine concepts and their requisite elements. Students are required to explain why they chose a solution.

Question Stems

Can you distinguish between …?
Can you explain what must have happened when …?
Determine the point of view, bias, values, or intent underlying the presented material...
Discuss the pros and cons of …
How can you classify … according to …?
How can you compare the different parts?
How can you sort the different parts…?
How is … connected to …?
How is … similar to …?
How would you categorise…?
How would you explain...?

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• How would you develop? • How would you explain …? • How would you modify …? • How would you present…? • How would you solve … ? • Identify the results of … • Illustrate the … • Judge the effects of … What would result …? • Predict what would happen if … • Tell how much change there would be if … • Tell what would happen if … • What actions would you take to perform …? • What do you think could have happened next? • What examples can you find that ? • What other way would you choose to …? • What questions would you ask of …? • What was the main idea …? • What would the result be if …? • Which factors would you change if …? • Who do you think…? • Why does this work? • Write a brief outline … • Write in your own words …	• What could the ending have been if ... had taken place? • State the point of view of … • What are some of the problems of …? • What assumptions …? • What can you infer about…? • What can you point out about ? • What conclusions …? • What do you see as other possible outcomes? • What does the author assume? • What explanation do you have for …? • What ideas justify the conclusion? • What ideas validate…? • What is the analysis of …? • What is the function of …? • What is the problem with …? • What motive is there? • What persuasive technique is used? • What statement is relevant? • What was the turning point? • What were some of the motives behind …? • What's fact? Opinion? • What's the main idea? • What's the relationship between? • Which events could not have happened? • Why did … changes occur? • Why do you think ?

BLOOM'S TAXONOMY WITH EXAMPLES

Conclusion

If you are a teacher looking for ways to engage your students in learning, this LIST of questions might be interesting for your classroom practice. Bloom's Taxonomy question stems can help elicit higher-order thinking skills and promote critical thinking among learners at different taxonomy levels. These question stems can also encourage students to think about their knowledge through reflection before answering questions.

ACTION WORDS FOR COGNITIVE LEVELS

Knowledge	Understand	Apply	Analyze	Evaluate	Create
					
define	explain	solve	analyze	reframe	design
identify	describe	apply	appraise	criticize	compose
describe	interpret	illustrate	judge	evaluate	create
label	paraphrase	modify	support	order	plan
list	summarize	use	compare	compare	combine
name	classify	calculate	decide	classify	formulate
state	compare	change	discriminate	contrast	invent
match	differentiate	choose	recommend	distinguish	hypothesize
recognize	discuss	demonstrate	summarize	infer	substitute
select	distinguish	discover	assess	separate	write
examine	extend	experiment	choose	explain	compile
locate	predict	relate	convince	select	construct
memorize	associate	show	defend	categorize	develop
quote	contrast	sketch	estimate	connect	generalize
recall	convert	complete	grade	differentiate	integrate
reproduce	demonstrate	construct	measure	divide	modify
tabulate	estimate	dramatize	predict	order	organize
tell	express	interpret	rank	prioritize	prepare
Copy	identify	manipulate	score	survey	produce

discover	indicate	paint	select	calculate	rearrange
duplicate	infer	prepare	test	conclude	rewrite
enumerate	relate	teach	argue	correlate	adapt
listen	restate	act	conclude	deduce	anticipate
observe	select	collect	consider	devise	arrange
omit	translate	compute	critique	diagram	assemble
read	ask	explain	debate	dissect	choose
recite	cite	list	distinguish	estimate	collaborate
record	discover	operate	editorialize	evaluate	facilitate
repeat	generalize	practice	justify	experiment	imagine
retell	group	simulate	persuade	focus	intervene
visualize	illustrate	transfer	rate	illustrate	make
	judge	write	weigh	organize	manage
	observe			outline	originate
	order			plan	propose
	report			question	simulate
	represent			test	solve
	research				support
	review				test
	rewrite				validate
	show				

HSSC PART I EXAMINATION
MARKS BREAKUP GRID FOR EXAMINATION 2025

GROUP: PRE-MEDICAL

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
PHYSICS	85	15	100
CHEMISTRY	85	15	100
BIOLOGY	85	15	100
TOTAL	505	45	550

GROUP: PRE-ENGINEERING

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
PHYSICS	85	15	100
CHEMISTRY	85	15	100
MATHEMATICS	100	--	100
TOTAL	520	30	550

GROUP: GENERAL SCIENCE

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
PHYSICS	85	15	100
COMPUTER SCIENCE	75	25	100
MATHEMATICS	100	--	100
TOTAL	510	40	550

GROUP: COMMERCE

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
ECONOMICS	75	-	75
P.O.C	75	-	75
ACCOUNTING	100	--	100
BUSINESS MATHEMATICS	50		50
TOTAL	550	---	550

GROUP: HUMANITIES

(Any Three Electives)

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
COMPUTER SCIENCE	75	25	100
ISLAMIC STUDIES	100		100
MATHEMATICS	100	-	100
SOCIOLOGY	100	--	100
ECONOMICS	100		100
EDUCATION	100		100
CIVICS	100		100
NURSING	85	15	100
TOTAL	550	---	550

GROUP: MEDICAL TECHNOLOGY

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
MICROBIOLOGY	85	15	100
HEMATOLOGY & BLOOD BANKING	85	15	100
ANATOMY & PHYSIOLOGY	85	15	100
TOTAL	505	45	550

GROUP: PRE-NURSING

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / URDU EASY	100	-	100
ISLAMIYAT / ETHICS	50	-	50
BIO-CHEMISTRY	85	15	100
FUNDAMENTALS OF NURSING	85	15	100
ELEMENTARY ANATOMY & MICRO TECHNIQUE	85	15	100
TOTAL	505	45	550