BSCS Test Criteria (Test Time: 60 Minutes)

Aggregate = (10% Matric Marks + 40% Intermediate Marks + 50% Test Marks)				
Paper Pattern (Total MCQs: 100)				
No.	**All Compulsory Sections**	**MCQs**	**Resource/Book**	**Link**
1	Verbal	25 %	• Word Power Made Easy — Norman Lewis (Book) • High School English Grammar — Wren & Martin (Book) • Oxford Practice Grammar — Eastwood (Book) • British Council — Learn English (Website)	• archive.org (free) • archive.org (free) • oup.com • britishcouncil.org
2	Quantitative(Basic Math's)	25 %	• Mathematics for Class 9 & 10 — Punjab Textbook Board (Book) • Quantitative Aptitude — R.S. Aggarwal (Book) • NTS Official Practice Material (Website) • Mathway — Problem Solver (Website)	• ptb.edu.pk • schandpublishing.com • nts.org.pk • mathway.com
3	General knowledge	25%	• General Knowledge — Ikram Rabbani (Book) • Current Affairs — JWT (Jahangir's World Times) (Book) • NTS Past Papers — GK Section (Website) • Geo Quiz — Seterra Geograph (website)	• carvaanbooks.com • jwt.com.pk • nts.org.pk • seterra.com

4	Analytical	25%	• Analytical Reasoning — M. Khalid Mahmood (Book) • A Modern Approach to Logical Reasoning — R.S. Aggarwal (Book) • Critical Thinking — Moore & Parker • NTS Analytical Sample Questions (website) • Brilliant.org — Logic & Puzzles (website)	• ilmkidunya.com • schandpublishing.com • mheducation.com • nts.org.pk • brilliant.org

MSCS, MS AI, PhD Test Criteria

Test Time: 120 Minutes

Paper Pattern (Total MCQs: 100)				
No.	**All Compulsory Sections**	**MCQs**	**Recourse/ Book**	**Link**
1	English	15	• Barron's GRE Verbal Reasoning (Book) • Manhattan Prep GRE Verbal (Book) • British Council — Learn English (Website)	• barrons.com • manhattanprep.com • britishcouncil.org
2	Analytical	25	• A Modern Introduction to Logic — Hurley (Book) • GRE Analytical Writing — ETS Official (Book) • Critical Thinking — Moore & Parker (Book) • Khan Academy — Logical Reasoning (Website)	• cengage.com • ets.org/gre • mheducation.com • khanacademy.org
3	Maths	10	• Discrete Mathematics — Rosen (Book) • Introduction to Probability — Bertsekas & Tsitsiklis (Book) • Linear Algebra — Gilbert Strang (Book) • MIT OpenCourseWare — Mathematics (Website)	• mheducation.com • athenasc.com • math.mit.edu • ocw.mit.edu
4	Computing Core	50		
	i. Basic Programming and OOP		• Object-Oriented Programming — Robert Lafore (Book) • GeeksforGeeks — OOP Concepts (Website)	• pearson.com • geeksforgeeks.org
	ii. Data Structures		• Data Structures & Algorithm Analysis — Weiss (Book)	• pearson.com • leetcode.com

			• LeetCode — DS Practice	
	iii. Database		• Database System Concepts — Silberschatz, Korth & Sudarshan (Book) • W3Schools SQL Tutorial (Website) • Stanford DB Course — db.cs.stanford.edu(Website)	• db-book.com • w3schools.com/sql • db.cs.stanford.edu
	iv. Operating Systems		• Operating System Concepts — Silberschatz, Galvin & Gagne (Book) • GeeksforGeeks — OS(Website)	• os-book.com • geeksforgeeks.org
	v. Computer Networks		• Computer Networking: A Top-Down Approach — Kurose & Ross (Book) • GeeksforGeeks — OS(Website)	• umass.edu • geeksforgeeks.org
	vi. Artificial Intelligence		• Artificial Intelligence: A Modern Approach — Russell & Norvig (Book) • Stanford CS221 — AI Course (Course/Website) • Pattern Recognition & ML — Bishop (Book)	• aima.cs.berkeley.edu • stanford-cs221.github.io • microsoft.com/research
	vii. Analysis of algorithms		• Introduction to Algorithms (CLRS) (Book) • MIT OCW 6.006 — Intro to Algorithms (Website)	• mitpress.mit.edu • ocw.mit.edu
	viii. Theory of Automata		• Introduction to the Theory of Computation — Sipser • GeeksforGeeks — TOA (Website)	• cengage.com • geeksforgeeks.org
5	Interview	50	• Cracking the Coding Interview — McDowell (Book) • The PhD Application & Interview Guide — Collegegrad (Website) • Glassdoor — CS PhD Interviews • ResearchGate	• crackingthecodinginterview.com • collegegrad.com • glassdoor.com • researchgate.net