ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

Secondary School Certificate (SSC)

Examination syllabus

COMPUTER SCIENCE IX

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:
Sana Anwer Ali
Manager Sciences
Ziauddin University Examination Board
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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 curriculum, along with the original version, is available on the DCAR website at https://dcar.gos.pk/Sindh-Curriculum/Computer%20Science%20Curriculum%20Grade%20IX-X%202018%20with%20Notification.pdf 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.

AIMS AND OBJECTIVES:

AIMS

The Computer Science syllabus aims to:

1. Develop computational thinking and problem-solving skills among students.
2. Equip students with foundational knowledge of computer systems, hardware, and software.
3. Introduce students to programming concepts and logical reasoning.
4. Foster an understanding of the role of technology in everyday life and its societal impacts.
5. Encourage students to explore innovative solutions using technology.
6. Introduce the concepts of entrepreneurship in the digital age, enabling students to understand the potential of technology-driven ventures.
7. Prepare students for higher studies and careers in technology, computer science, and related fields.

OBJECTIVES

By the end of Grade IX, students should be able to:

1. Understand the fundamental concepts of computer science and their applications in everyday life.
2. Demonstrate basic knowledge of computer hardware, software, and their functions.
3. Develop computational thinking and logical reasoning skills to approach problems systematically.
4. Acquire introductory programming skills and create simple programs.
5. Explore the potential of technology in entrepreneurship and understand the basics of digital business models.
6. Appreciate the role of technology in society and understand its ethical and social implications.
7. Apply analytical skills to solve real-world problems using technology.
8. Lay a strong foundation for further studies in computer science, entrepreneurship, and related fields.

EXAMINATION SYLLABUS

UNIT 1 – FUNDAMENTALS OF COMPUTER

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
1.1	Introduction to Computer	—			
1.1.1	Evolution of Computers	Demonstrate understanding about the history of computers		✓	
1.1.1	Evolution of Computers	Outline the various generations of computers	✓		
1.1.2	Classification of Computers	Classify the computers as per their size and technology used to date		✓	
1.2	Role of Computer	—			
1.2.1	Use of Computers in Various Fields	Explain the uses of computers in different fields of life		✓	
1.2.1	Use of Computers in Various Fields	Discuss how computer is affecting our lifestyle (entertainment & day-to-day tasks)		✓	
1.2.2	Careers in IT and Computer Science	Tell about scope of different IT careers (Software Engineer, Network Admin, DBA, Web Designer, Graphics Designer, InfoSec Analyst, Teacher, others)		✓	
1.3	Computer Hardware	—			
1.3.1	System Unit	Describe computer hardware	✓		
1.3.1	System Unit	Explain functions of system unit parts (motherboard, processor, etc.)		✓	
1.3.2	Input Devices	Differentiate between various input devices		✓	
1.3.3	Output Device	Recognize different output devices	✓		
1.3.4	Storage Devices	Differentiate between primary memory and secondary memory		✓	
1.3.4	Storage Devices	Classify different hardware devices as per their functionality	✓		
1.4	Basic Operations of Computer	Understand basic operations: Input, Processing, Storage, Output		✓	
1.4	Basic Operations of Computer	Differentiate among the four basic operations of computer		✓	
1.4	Basic Operations of Computer	Draw the block diagram of computer's basic operations			✓
1.5	Computer Software	—			
1.5.1	System Software	Develop understanding about system software		✓	
1.5.1	System Software	Recognize types of system software (Operating System, Device drivers, Utility programs, Language processors)	✓		
1.5.2	Application Software	List names of different application software (productivity, business, entertainment, education)	✓		
1.5.2	Application Software	Differentiate between application software and		✓	

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
		system software			

UNIT 2 – FUNDAMENTALS OF OPERATING SYSTEM

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
2.1	Introduction of Operating System (OS)	—			
2.1.1	Functions of OS	Define Operating System (OS)	✓		
2.1.1	Functions of OS	Develop understanding about functions of OS (memory management, I/O management, files management, resource management, users management)		✓	
2.1.2	Types of OS Interface	Distinguish among types of OS interfaces (Command Line Interface - CLI, Graphical User Interface - GUI)		✓	
2.2	Types of Operating System	—			
2.2.1	Single User & Multi-User OS	Discuss single-user and multi-user operating systems		✓	
2.2.2	Batch Processing OS	Discuss batch processing OS		✓	
2.2.3	Time Sharing OS	Discuss time-sharing OS		✓	
2.2.4	Real Time Processing OS	Discuss real-time processing OS		✓	
2.2	Types of OS	Differentiate among the various types of operating systems		✓	
2.3	Software Installation	—			
2.3.1	Install Windows OS	Apply / demonstrate installation process of Windows Operating System			✓
2.3.2	Install Office Automation Software	Apply installation process of Office Automation software			✓
2.3.3	Install Antivirus	Apply installation process of Antivirus software			✓

UNIT 3 – OFFICE AUTOMATION (MS Word & MS Excel)

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
3.1	MS Word	—			
3.1.1	Page Layout Tab	Demonstrate Page Layout tab of MS Word (Themes, Page Background, Paragraph, Arrange)			✓
3.1.1	Page Layout Tab	Identify the different groups of Page Layout tab	✓		
3.1.1	Page Layout Tab	Apply features available in Page Layout tab groups			✓
3.1.2	Insert Table of Contents	Insert Automatic and Manual Table of Contents			✓

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
3.1.3	Typing in Urdu & Sindhi	Compose documents in Urdu and Sindhi in MS Word			✓
3.2	MS Excel	—			
3.2.1	Sorting	Review basics of MS Excel; identify UI elements		✓	
3.2.2	Formulas	Apply formulas in Excel			✓
3.2.3	Charts	Display data using Charts in Excel			✓

UNIT 4 – DATA COMMUNICATION & COMPUTER NETWORKS

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
4.1	Basics of Communication	—			
4.1.1	Terminology	Define: Data, Data Communication, Data Transmission, Analog Signals, Digital Signals, Data Rate, Baud Rate, Signal-to-Noise Ratio	✓		
4.1.1	Terminology	Elaborate data rate and baud rate with formulas and units		✓	
4.1.2	Components	Recognize components of communication system (Sender, Receiver, Message, Protocol, Transmission Medium)	✓		
4.1.3	Properties	Tell properties of a good communication system (Delivery, Accuracy, Timeliness)		✓	
4.2	Transmission Medium	—			
4.2.1	Guided Media	Explain types of guided media (Twisted pair, Coaxial, Fiber optic)		✓	
4.2.2	Unguided Media	Describe types of unguided media (Radio waves, Microwave, Infrared, Satellite)		✓	
4.2.3	Transmission Impairments	Explain transmission impairments (Attenuation, Distortion, Noise)		✓	
4.3	Communication Devices	—			
4.3.1	Switch / Router	Define switch and router; describe their functions		✓	
4.3.2	Modem	Differentiate types of modem (Dial-up, DSL, ISDN) and explain functions		✓	
4.3.3	NIC	Describe function of Network Interface Card (NIC)	✓		
4.4	Basics of Computer Networks	—			
4.4.1	Computer Network & Networking	Define computer network and networking	✓		
4.4.2	Types of Computer Networks	Classify networks by scope: LAN, MAN, WAN		✓	
4.5	Fundamental Topologies	—			
4.5.1	Bus Topology	Develop understanding about physical layout of bus topology		✓	
4.5.2	Ring Topology	Become familiar with design constraints of ring		✓	

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
		topology			
4.5.3	Star Topology	Demonstrate architecture of star topology			✓
4.5.4	Topologies	Differentiate topologies according to design & physical layout		✓	
4.6	Standards Organizations	List standards organizations (ISO, IEEE, IETF, ITU, ANSI, others)	✓		
4.7	Network Architecture	—			
4.7.1	OSI Model	Memorize names of seven OSI layers (Application, Presentation, Session, Transport, Network, Data-link, Physical)	✓		
4.7.1	OSI Model	Define functions of all OSI layers		✓	
4.7.2	TCP/IP Model	Describe functions of Application, Transport, Internet and Network layers of TCP/IP model		✓	
4.8	Network Addressing	—			
4.8.1	IPv4	Define network address; describe IPv4 addressing		✓	
4.8.1	IPv4	Differentiate physical (MAC) vs logical (IP) addresses		✓	

UNIT 5 – COMPUTER SECURITY & ETHICS

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
5.1	Computer Security	—			
5.1.1	Importance	Explain importance of computer security in daily life		✓	
5.1.2	Safeguard vs Viruses/Worms	Define cybercrime, hacker, cracker	✓		
5.1.3	Cyber Attacks	Describe cyber-attacks and ways to prevent them			✓
5.2	Computer Viruses	—			
5.2.1	Types of Viruses	Define virus types: Virus, Worm, Adware, Spyware, Malware	✓		
5.2.2	Ways of Spread	Identify how viruses/worms spread (infected flash drives/CDs, pirated software, network/internet, e-mail attachments)		✓	
5.2.3	Antivirus	Recognize antivirus software (Avast, Norton, McAfee, others) and their role		✓	
5.3	Authentication Mechanism	—			
5.3.1	Types of Security Mechanisms	Describe authentication mechanisms (username/password, PIN, biometrics) and differentiate among them		✓	
5.4	Professional Ethics in Computer Field	—			
5.4.1	Information Accuracy	Explain importance of information accuracy		✓	

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
5.4.2	Intellectual Property Rights	Explain types of IPR (patents, copyright, trademarks)		✓	
5.4.3	Software Piracy	Explain software piracy and its impact on security		✓	
5.4.4	Information Privacy	Describe information privacy and discuss plagiarism		✓	
5.4.5	Cyber Crime & Cyber Harassment	Explain cybercrime and cyber harassment, what to do if victim (seeking help from National Response Center for Cyber Crime, other departments)			✓

UNIT 6 – WEB DEVELOPMENT

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
6.1	Basic Terminology of Web Development	—			
6.1.1	Definition of Terms	Recall & define WWW, Web page, Web site, Web browser, URL, Search engine, Home page, Web hosting, Web server	✓		
6.1.2	Types of Websites	Identify & compare types of websites (Portal, News, Informational, Educational, Personal, Business, Blogs, Forums, Entertainment)		✓	
6.2	Introduction to HTML	—			
6.2.1	HTML	Develop understanding about Hypertext Markup Language (HTML)		✓	
6.2.2	Steps in Creating HTML file	Apply steps involved in creating an HTML file			✓
6.2.3	HTML Tags	Recognize common HTML tags	✓		
6.2.4	Basic Structure	Identify head and body sections and basic structure of HTML document		✓	
6.3	Text Formatting	—			
6.3.1	Titles & Footers; Paragraphs & Line Breaks	Use title/address tags, paragraph, line-break tags in web page			✓
6.3.2	Heading Styles & Text Formatting Tags	Use heading tags and formatting tags (bold, italic, underline, pre, font size/color/face, center, subscript, superscript)			✓
6.4	Creating Lists	—			
6.4.1	Unordered, Ordered, Definition, Nested Lists	Differentiate and create unordered, ordered, definition and nested lists			✓
6.5	Images & Backgrounds	—			
6.5.1	Image Tag & Attributes	Add an image; use attributes BORDER, WIDTH, HEIGHT, ALT			✓
6.5.2	Body Tag Attributes	Apply BGCOLOR and BACKGROUND to set page background			✓

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
6.6	Hyperlinks	—			
6.6.1	Hyperlink	Define hyperlink and anchor tag		✓	
6.6.1	Hyperlink	Create links to external document and links within same document			✓
6.6.2	Anchor Tag Attributes	Use anchor attributes (HREF, NAME, TARGET)			✓
6.7	Creating Tables	—			
6.7.1	Table Row / Heading / Data	Define table, rows and columns; differentiate heading and data		✓	
6.7.2	Table Attributes	Create table and apply ALIGN, VALIGN, WIDTH, BORDER, CELLPADDING, CELLSPACING, COLSPAN, ROWSPAN			✓
6.8	Creating Frames	—			
6.8.1	Frameset Attributes	Define frame and frameset; use ROWS and COLS in <frameset>			✓
6.8.2	Frame Tag Attributes	Use frame attributes (SRC, MARGINHEIGHT, MARGINWIDTH, NORESIZE, SCROLLING)			✓
6.9	Web Designing Tools	List web designing software (FrontPage, CorelDraw, Adobe Dreamweaver, others)	✓		

UNIT 7 – INTRODUCTION TO DATABASE SYSTEM

Code	Topic	Learning Outcome	Cognitive Level		
			K	U	A
7.1	Flat File System & Database System	—			
7.1.1	Flat File System	Define flat file system (file management system)	✓		
7.1.2	Database System	Define database system / Database Management System (DBMS)	✓		
7.1.3	Advantages of DBMS	Discuss advantages of DBMS over flat file system		✓	
7.2	Fundamentals of Database System	—			
7.2.1	Basic Database Terminology	Define table, field/attribute/column, record/tuple/row, data type, view	✓		
7.2.2	Difference DB vs DBMS	Differentiate between database and Database Management System		✓	
7.3	Data Modeling & ER Model	—			
7.3.1	Entity	Define entity	✓		
7.3.2	Relationship	Discuss the term relationship in DB context		✓	
7.3.3	Keys	Distinguish primary key, foreign key, referential key		✓	
7.3.4	ER-Model / Diagram	Define ER model; design ER model/diagram (apply in MS Access)			✓

Ziauddin University Examination Board
Computer Science
Scheme of Assessment

Maximum marks: 75

Section "A"

Multiple Choice Questions (MCQs) **(12 x 1 = 12)**

- Attempt 12 MCQs. Each MCQ carries equal marks.

Practical based assessments (PBAs) **(15 x 1 = 15)**

- Attempt 15 MCQs. Each MCQ carries equal marks.

Section "B"

Short Answer Questions **(8 x 3 = 24)**

- Attempt any 8 out of 12 questions. Each questions carries equal marks.

Section "C"

Detailed Answer Questions **(4 x 6 = 24)**

- Attempt any 4 out of 6 questions. Each question carries equal marks.

Ziauddin University Examination Board
Computer Science
Table of Specification [TOS]

S.No	Domains	Weightage in evaluation 100%	MCQs 1 mark each	PBAs 1 mark each	Short Answers 3 marks each	Detailed Answers 6 marks each
1	Fundamentals of Computer	11 %	4	0	1	–
2	Fundamentals of Operating System	20 %	2	5	1	1
3	Office Automation	22 %	1	6	2	1
4	Data Communication and Computer Networks	9 %	1	0	2	1
5	Computer Security and Ethics	13 %	2	0	3	1
6	Web Development	18 %	1	4	2	1
7	Introduction to Database System	7 %	1	0	1	1
Total # of Questions asked			**12**	**15**	**12**	**6**
Total # of Questions to be attempted			**12**	**15**	**8**	**4**
Maximum marks attainable			**12 marks**	**15 marks**	**24 marks**	**24 marks**

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?

	• 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 …?
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…?	**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...?

• 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

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				

SSC PART I EXAMINATION
MARKS BREAKUP GRID FOR EXAMINATION 2025

SCIENCE GROUP:

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / SINDHI NORMAL	75	-	75
ISLAMIYAT/ETHICS	75	-	75
PHYSICS	60	15	75
CHEMISTRY	60	15	75
BIOLOGY	60	15	75
MATHEMATICS	75	-	75
TOTAL	505	45	550

COMPUTER SCIENCE GROUP:

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL/SINDHI NORMAL	75	-	75
ISLAMIYAT/ETHICS	75	-	75
PHYSICS	60	15	75
CHEMISTRY	60	15	75
COMPUTER SCIENCE	60	15	75
MATHEMATICS	75	-	75
TOTAL	505	45	550

GENERAL GROUP:

SUBJECT	THEORY	PBA	TOTAL
ENGLISH	100	-	100
URDU NORMAL / SINDHI NORMAL	75	-	75
ISLAMIYAT/ETHICS	75	-	75
GENERAL SCIENCE	75	-	75
GENERAL MATH	75	-	75
EDUCATION	75	-	75
ECONOMICS	75	-	75
CIVICS	75	-	75
ISLAMIC STUDIES	75	-	75
TOTAL	550	-	550