

The Institute of Bankers Pakistan

ISQ Syllabus Guide

# **Information Technology in Financial Services**

Stage 1



IBP Superior  
Qualification

**For queries and feedback**

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# Table of Contents

Preface	<b>4</b>
1 Aims/ Objectives of the ISQ	<b>5</b>
2 ISQ Scheme of Study	<b>6</b>
3 Rationale of the ISQ Program	<b>9</b>
4 JAIBP Program Format	<b>10</b>
5 Aims/ Objectives of the “Information Technology in Financial Services” Course	<b>11</b>
6 Syllabus	<b>12</b>
7 Specific Learning Objectives (SLOs)	<b>15</b>
8 Scheme of Assessment	<b>20</b>
9 Recommended Texts and Reference Materials	<b>21</b>
10 Definition of Cognitive Levels and Command Words of the SLOs	<b>22</b>
Annexure 1 — Transition Process for Mid-stream Candidates	<b>25</b>

# Preface

IBP Superior Qualification (ISQ) provides a unique opportunity to those who wish to pursue a professional qualification in banking.

The ISQ has been designed such that it not only encourages learning in a traditional manner but also encourages the understanding and application of concepts and banking practices. Developed using contemporary curriculum design methodology, we believe that the ISQ will enhance the skills and knowledge of current and potential bankers, providing the industry with a healthy pool of qualified professionals.

Since our banking professionals are geographically mobile, investment in a qualification which is widely recognized in the region and globally is the need of the hour. The Institute is proud to introduce from July 2011 the new Junior Associateship level of the ISQ qualification (JAIBP) which is accredited by UK's Chartered Banker Institute and candidates completing the JAIBP level with the new curriculum will be eligible to attain the Associate Chartered Banker title awarded by Chartered Banker Institute.

The Institute of Bankers Pakistan continues to endeavor to fulfill its mandate of providing quality professional training and technical expertise for the banking industry and the new ISQ is a step in that direction.

This book contains details about the "Information Technology in Financial Services" course of the JAIBP program. We encourage you to study this in detail and wish you the best of luck in your knowledge endeavors.

**Shahnoor Meghani**

Head of Strategic Initiatives

The Institute of Bankers Pakistan

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# 1 Aims/ Objectives of the ISQ

IBP Superior Qualification (ISQ) is the only recognized professional qualification for bankers in Pakistan, which is recognized by both, the State Bank of Pakistan as well as the banking and financial services industry.

ISQ is a professional qualification program which is aimed at empowering the present and aspiring prospective management-level bankers with practical knowledge about the banking industry and its functions. The primary objective of the ISQ program is to equip entrants of the banking industry and existing mid-level bankers with necessary skills and knowledge to become well-rounded banking professionals.

The Junior Associateship of IBP (JAIBP) portion of the ISQ program has undergone a complete updation, in terms of structure and curriculum, to make it relevant to the current banking industry needs as well as international market practices.

The new JAIBP program is effective from the Winter 2011 examination. Candidates who enroll for the ISQ program in July 2011 will start their course of study with the new syllabus offerings. Candidates who enroll for the ISQ program in July 2011 will start their course of study with the new syllabus offerings. Candidates who had enrolled and appeared for the JAIBP exam prior to July 2011 (mid-stream candidates) will be transitioned to the new program. Mid-stream JAIBP candidates need to thoroughly review the "Transition Process" provided in Annexure I. Kindly read the process and familiarize yourself with the steps and procedures to be undertaken to equate yourself to the new and updated ISQ program.

## 2 ISQ Scheme of Study

The ISQ program is a 3-Level Self-Study Program:

<b>Junior Associateship of IBP (JAIBP)</b>	<b>Associateship of IBP (AIBP)</b>	<b>Fellowship of IBP (FIBP)</b>
Stage 1 — Four Subjects	JAIBP	AIBP
Stage 2 — Four Subjects	3 years of Total Banking Experience	5 years Post AIBP Banking Experience
Stage 3 — Three Subjects	60 Hours CPD	Two Subjects
Plus one Specialization Subject	Four Subjects Plus one Specialization Subject	Specialization Dissertation plus Viva and two published articles in a reputed journal

For the Winter 2011 examination session, the Institute has revamped only the Junior Associateship of IBP (JAIBP).

The JAIBP is a three stage, self study program, designed specifically to create well-rounded banking professionals. The updated JAIBP structure is as follows:

### Stage 1

- 1 Business Communication for Financial Services
- 2 Introduction to Financial Systems and Banking Regulations
- 3 Information Technology in Financial Services
- 4 Branch Banking

### Stage 2

- 5 Accounting for Financial Services
- 6 Lending: Products, Operations and Risk Management
- 7 Human Resource Management and Organizational Behavior
- 8 Economics

### Stage 3

- 9 Marketing of Financial Services
- 10 Finance of International Trade & related Treasury Operations
- 11 Management Accounting for Financial Services

At Stage 3, candidates will have to successfully complete one Specialization Subject from the following:

Leasing and Micro Finance  
SMEs and Agriculture Finance  
Islamic Banking and Finance  
Retail and Consumer Banking Operations

Students enrolling in the JAIBP program have a maximum period of 5 years to complete the JAIBP. The 5 year period commences from the date of appearance in the first exam. Further details are available in the ISQ Handbook.

## **The Chartered Banker Institute — Accreditation of ISQ’s JAIBP**

The UK’s Chartered Banker Institute has accredited the Junior Associateship of IBP (JAIBP) portion of the IBP Superior Qualification (ISQ) program.

The UK’s Chartered Banker Institute is the oldest banking institute in the world. It develops and promotes professional standards for bankers and provides world class professional qualifications for the financial services industry in the UK and overseas.

The Chartered Banker Institute is also the only organization worldwide that can confer Chartered Banker status on its Members and Fellows. Membership of the Chartered Banker Institute means that one meets the professional standards of excellence, which are recognized and respected all over the world. Being a member of the Chartered Banker Institute is a valuable asset in one’s professional career as it provides the worldwide recognition that they deserve and also helps keep them ahead of their peers in the banking and financial services industry.

In addition, membership of the Chartered Banker Institute forms a solid base for a successful career in banking and financial services. Members will benefit from the Chartered Banker Institute’s status, confidence and professional standing and in turn be more employable and have better career prospects in the future.

### **What does the Chartered Banker Institute’s accreditation of the JAIBP mean for me?**

This accreditation of the JAIBP means that all individuals who successfully complete the JAIBP have the opportunity to receive a portable certification that is internationally recognized through the accreditation by a renowned institution.

#### **1 Candidates who enroll for the JAIBP program in July 2011**

All JAIBP qualified individuals who enrolled in the ISQ program in July 2011, which is accredited by Chartered Banker Institute, upon completion will receive a joint certification by IBP and the Chartered Banker Institute, and will also be eligible to use the title of the Associate Chartered Banker (through on-going payment of the subscribed fee).

#### **2 Mid-stream ISQ Candidates**

Mid-stream JAIBP candidates will have to pass a comprehensive examination to fulfill the requirements of the Chartered Banker Institute’s accreditation of the JAIBP program, in addition to payment of subscription fee.

The schedule and fee for the comprehensive examination will be announced on the IBP website ([www.ibp.org.pk](http://www.ibp.org.pk)).

## **Eligibility Criteria for the JAIBP Program**

The entry criterion for the JAIBP program has been revised for candidates enrolling from July 2011 onwards. JAIBP is open for the following:

- 1 Graduates in any discipline with a minimum 2<sup>nd</sup> Division  
AND
- 2 Students who are pursuing their degree in a 4-year undergraduate program (post Intermediate/A levels or equivalent) are eligible to enroll for the ISQ program during their 3<sup>rd</sup> or 4<sup>th</sup> year of study. Students who are pursuing their degree in a 2-year undergraduate program (post Intermediate/A levels or equivalent) are eligible to enroll for the ISQ program during their final year of study.

Documentation required for students registering in the ISQ program will be attested mark sheet for Intermediate or A levels with a pass grade of 45% and a letter from their academic institution confirming their enrollment in the specified undergraduate program. The award of the completed JAIBP qualification would be subject to the candidate having a graduate degree.

*Note: More details about the program can be found in the ISQ Handbook or on the IBP website: [www.ibp.org.pk](http://www.ibp.org.pk)*



### 3 Rationale of the ISQ Program

The general rationale behind the program revamp is simple. With the rapid growth and development of the financial sector and its changing dynamics, the needs of the banking industry in terms of the knowledge required from young entrants have increased. The Institute, in order to provide the banking industry with the most relevant and up-to-date program and to help equip the banking industry recruits with essential industry expertise; has updated its program to align it with the needs of the industry in Pakistan as well as global industry trends. IBP has developed the ISQ program in a manner that is contemporary and in line with international standards both in terms of the course of study i.e. creating a comprehensive, standardized program and design which incorporates international renowned methodologies for curriculum development and assessment and testing. Furthermore, the ISQ program provides working professionals with the flexibility to pursue their career while enhancing their professional qualifications. Moreover, the ISQ program is also beneficial for full-time students as this qualification will assist them in paving the way to enter into the banking and financial services industry.

## 4 JAIBP Program Format

The syllabus for each of the compulsory JAIBP course has been updated to reflect the current banking industry requirements.

IBP is now providing all candidates of the JAIBP program with Specific Learning Objectives (SLOs). The SLOs are basically a learning resource or a tool, aiding candidates in studying the most testable course material. The SLO plan provided in section 7 is indicative and is meant as a study guide. Cognitive levels mentioned are also indicative and students are encouraged to study the subject deeply and beyond the stated cognitive level to enhance their learning. This book is specifically a Syllabus Guide for the “Information Technology in Financial Services” course. More information about the ISQ program can be found in the ISQ Handbook or on our website.

The SLOs in Section 6 of this book correspond with the syllabus of a specific course. Each learning objective or SLO begins with a command word, such as, ‘list’, ‘define’, ‘describe’, ‘explain’ etc. Each command word is associated with a cognitive level. The command words help the candidates in identifying the level of detail expected from them in their course of study. The examination questions are also framed using the same type of command words. Please see Section 10 to obtain the definitions of the command words.

The SLOs are classified under three cognitive levels:

- 1 Knowledge (K)
- 2 Understanding (U)
- 3 Application of knowledge and skills (A)

Definitions are provided in Section 10

**Candidates must thoroughly review the following sections while preparing for their examination:**

- Section 6: Syllabus
- Section 7: Specific Learning Objectives (SLOs)
- Section 8: Scheme of Assessment
- Section 9: Recommended Texts and Reference Materials
- Section 10: Definition of Cognitive Levels and Command Words of the SLOs

**This book contains information specific to the “Information Technology in Financial Services” course.**

*Disclaimer:*

*The Institute reserves the right to revise its policies, procedures and program structure at any point. Please refer to the Institute’s website for latest information.*

# 5 Aims/ Objectives of the “Information Technology in Financial Services”

With the increasing use of and reliance on technology in the financial services industry, bankers need to know not only the basic computing concepts but also understand the correlation that now exists between banking and technology. This course is designed to equip participants to have an understanding of the above.

## Specific Objectives

After the successful completion of this course, participants will have:

- Good understanding of the following concepts
  - Significance of IT in banking
  - IT infrastructure used in banking
  - Core and supplementary banking applications and packages
    - i) Core banking systems
    - ii) Desktop systems
      - Word processing
      - Spreadsheet
      - Presentation software
    - iii) Communications systems
      - Email
      - Voice-over-IP (VoIP)
      - Video Conferencing
      - Groupware
      - Instant Messaging
  - IT Security and Risk Mitigation
- Basic understanding of how various electronic banking services work, such as:
  - E-Banking
  - Telephone Banking
- Thorough understanding and basic functional knowledge of
  - The impact of outsourcing
  - Business Continuity Planning
  - Disaster Recovery and Management

# 6 Syllabus

## Information Technology in Financial Services

### 1 Basic Computing Concepts

- a) Basic Computer Terminology
  - i) What is a computer?
  - ii) What is an operating system?
  - iii) What are application software
  - iv) What is Data Communication?

### 2 Information Technology in the Banking Sector

- a) IT systems — an overview
  - i) Popular banking packages and software
  - ii) Evolution of IT systems over the years
  - iii) Architecture of banking packages and software
    - Desktop systems
      - 1) Word processing
      - 2) Spreadsheet
      - 3) Presentation software
    - Communications systems
      - 1) Email
      - 2) Voice-over-IP (VoIP)
      - 3) Video Conferencing
      - 4) Groupware
      - 5) Instant Messaging
- b) Systems used in Financial Industry
  - i) Core Banking systems
  - ii) IT systems that link the bank with other banks
    - IBFT, MNET, 1-Link, POS , NIFT, RTGS, SWIFT, etc
  - iii) Card processing systems
    - VISA, MasterCard, American Express etc.
  - iv) Desktop support systems/ customer services systems
  - v) MIS applications e.g. Liability Management System, CRM, ERP
  - vi) VeriSys NADRA database connectivity system (Pakistan's case)
  - vii) Credit Assessment systems|
    - eCIB /credit bureau check systems (connectivity with State Bank and local data-check companies)
      - Behavioral assessment and Application scoring systems using for credit related decisions
  - viii) Fraud/ Risk Monitoring system, e.g. AML
  - ix) Compliance/ Operational Risk systems
  - x) Treasury based market system
    - Reuters, Bloomberg, etc

### **3 Introduction to the Internet**

- a) Basic Concepts
  - i) Evolution and current-day use
  - ii) Dynamic Vs Static web pages
  - iii) Transactions Vs Information websites
- b) Impact on business
- c) Internet tools
  - i) Search engines
  - ii) Online tools
  - iii) E-commerce and online trading
- d) Social media

### **4 Introduction to Networking**

- a) Basic Concepts
  - i) Branch connection with central servers
  - ii) Online branch banking – bank’s own branch connectivity
  - iii) Issues in online branch banking connectivity
- b) Networking Trends

### **5 Technology Based distribution channels / Networks in Financial Industry**

- a) Phone Banking/ Call Center
- b) Mobile banking
- c) Internet banking
- d) ATM
- e) POS
- f) CDM – Cash Deposit Machines
- g) Email / SMS notifications

### **6 Emerging Technology trends in Financial Sector**

- a) Contact less payment solutions
- b) Branch less banking
- c) Micro payment solutions
- d) Open Source software (alternatives to Microsoft and other propriety products)
- e) Image based cheque processing system
- f) Biometric ATMs
- g) Stored Value cards, e.g. Watan cards

### **7 IT policy in financial institutions**

- a) Developing an organization-wide IT policy
  - i) Key components
  - ii) Do’s and don’t
  - iii) User restrictions
  - iv) Scheduled back-ups / auto-archiving
  - v) Antivirus safeguards
  - vi) Data confidentiality

## **8 IT Vendor Services**

- i) Outsourcing and In sourcing
- ii) Managed Services

## **9 IT Security and Risk Mitigation**

- a) Basic principles
  - i) Key concepts
  - ii) Authenticity
  - iii) Banking security standards
  - iv) Risk of password sharing
- b) Mitigation controls
  - i) Administrative
  - ii) Logical
  - iii) Physical
- c) Security processes and management
  - i) Security governance
  - ii) Incident response
  - iii) Risk management and IT auditing
- d) Business continuity
  - i) Disaster recovery planning
- e) Professionalism and ethical standards
- f) IT audit framework/ standardization
- g) International certifications in IT security
- h) International standards of IT security
- i) SBP IT Audit

## **IT laws in Pakistan/ Regulatory Framework**

- a) ETO – Electronic Transactions Ordinance
- b) Cyber Crime Ordinance
- c) Emerging card global standards, e.g. EMV and PCI / DSS
- d) State Bank penalties against non-compliance Accounting for Financial Services

# 7 Specific Learning Objectives (SLOs)

## Information Technology in Financial Services

Chapter	Candidates Learning Outcome		Cognitive Levels		
<b>1.</b>	<b>The Basics of Business Accounting</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
1.1	Basic computer technology	a. Define a Computer	*		
		b. Define OS and describe its functions		*	
		c. List and describe OS types		*	
		d. Discuss application software and list a few examples of the applications as used in banks		*	
		e. Discuss the concept of data communication		*	
<b>2.</b>	<b>Information Technology in banking sector</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
2.1	IT systems – an overview	a. List the popular banking packages and software being used	*		
		b. Discuss the key modules of banking packages and their functionalities		*	
2.2	Evolution of IT systems in banks	a. Discuss the evolution of IT systems in banks over the past decade		*	
		b. List banking systems/technologies that have become obsolete	*		
2.3	Desktop systems	a. Explain the usage and functionality of the Word processing		*	
		b. Explain the usage and functionality of a Spreadsheet		*	
		c. Explain the usage and functionality of a Presentation software		*	
2.4	Communications systems	a. Explain the usage and functionality of an Email		*	
		b. Define the concept of “Voice-over-IP (VoIP)”	*		
		c. Explain the usage and functionality of the VoIP system		*	
		d. Discuss the concept and usage of “Video conferencing ”		*	
		e. Discuss the concept and usage of “ Groupware”		*	
		f. Discuss the concept and usage of “Instant Messaging”		*	
<b>2.5</b>	<b>Systems used in Financial Industry</b>				
2.5.1	Core Banking Systems	a. Define the concept behind transaction processing systems	*		
		b. Explain the purpose of the transaction processing system in a bank and how it works		*	
		c. Discuss the features of a core banking system		*	
2.5.2	IT systems that link the bank with other banks	a. Define IBFT	*		
		b. Explain the concept of IBFT and list the names of banks using IBFT		*	
		c. List the names of networks available in Pakistan for inter bank operations	*		
2.5.3	Card Processing systems	a. List the networks that link local banks with International financial networks	*		
		b. Define briefly the working methodology of the networks that link local banks with International financial networks	*		

2.5.4 Desktop support systems/ customer services systems	a. Define the concept behind the desktop support systems/customer services system	*		
	b. Discuss briefly the working methodology of all request capturing/complaint management systems		*	
2.5.5 MIS applications	a. Define the concept of management information system as applied in banks	*		
	b. Explain briefly the working methodology of Liability management system, ERP and CRM		*	
2.5.6 VeriSys NADRA database connectivity system	a. Describe briefly the working methodology of 'VeriSys'		*	
2.5.7 Credit Assessment systems	a. Define the concept of a credit assessment system	*		
	b. Describe briefly the role of eCIB / credit bureau check systems in loan approval process		*	
	c. State the concept and purpose of behavioral assessment or application scoring system as used by banks	*		
2.5.8 Fraud/ Risk Monitoring	a. Define the role and importance of a risk/fraud monitoring system	*		
	b. Recall the SBP regulation that applies to Fraud/Risk monitoring	*		
2.5.9 State Banks RTGS – Real Time Gross Settlement	a. Describe the functions of RTGS		*	
2.5.10 Treasury based market system	a. Define the concept of a treasury based market system	*		

**3 Introduction to Internet Candidates should be able to: K U A**

3.1 Basic concepts	a. Define and explain the Internet and list its functions		*	
	b. Discuss the evolution of internet and its current-day use		*	
	c. Differentiate between information and transaction based websites		*	
	d. Differentiate between static and dynamic web pages		*	
3.2 Impact on business	a. Explain how the internet has impacted today's business practices		*	
	b. Illustrate with an example how the internet has changed the basic business practices			*
3.3 Internet tools	a. Define and discuss search engines and list their key features		*	
	b. Define online tools and explain and illustrate how they can be used			*
	c. Define and describe E-commerce and online trading		*	
3.4 Social Media	a. List the various social media tools available	*		
	b. Describe the opportunities that social media platforms provide		*	
	c. Describe the potential risks of using and not using social media platforms for marketing and public relations		*	

**4. Introduction to Networking Candidates should be able to: K U A**

4.1 Basic concepts	a. Define basic networking technologies	*		
	b. List network infra structure devices	*		
	c. List networking media	*		
	d. List types of networks (LAN,MAN,VAN etc)	*		
	e. List the issues in online branch banking connectivity	*		



4.2	Networking trends	a. List various networking trends (WiFi, Broadband,VPN)	*			
5.	<b>Technology Based distribution channels/ Networks Financial Industry</b>	<b>Candidates should be able to:</b>		<b>K</b>	<b>U</b>	<b>A</b>
5.1	Phone Banking/Call Center	a. Describe how Phone Banking/Call centers are operated		*		
		b. Differentiate between IVR and agent based call centers		*		
		c. List the common issues encountered in day to day operations of a call center	*			
		d. Define the term 'down time'	*			
		e. List the services being offered via phone banking both internationally and locally	*			
		f. List the recent developments pertaining to call center operations in Pakistan	*			
5.2	Mobile banking	a. Define mobile banking	*			
		b. Describe how mobile banking operates		*		
		c. List the common issues of mobile banking	*			
		d. Define the term 'down time' and explain its impact on the overall mobile banking service		*		
		e. List the recent developments pertaining to mobile banking in Pakistan	*			
		f. List the services being offered via mobile banking both internationally and locally	*			
		g. Discuss the working methodology of mobile banking		*		
		h. Recall the SBP regulation that applies to mobile banking	*			
5.3	Internet banking	a. Define the concept behind Internet banking	*			
		b. Discuss the working methodology of internet banking		*		
		c. List the common issues encountered in internet banking	*			
		d. Define the term 'down time' and explain its impact on the overall internet banking service		*		
		e. List the recent developments pertaining to internet banking in Pakistan	*			
		f. List the services being offered via internet banking both internationally and locally	*			
5.4	ATM	a. Define the term ATM	*			
		b. Describe how ATMs operate		*		
		c. List the common issues encountered in ATM operations	*			
		d. Define the term 'down time' and explain its impact on the overall ATM service		*		
		e. List the recent developments pertaining to ATM services in Pakistan	*			
		f. List the services being offered via ATMs both internationally and locally	*			
5.5	POS	a. Define POS	*			
		b. List the common issues encountered in POS operations	*			
		c. Define the term 'down time' and explain its impact on the overall POS service		*		

		d. List the recent developments pertaining to POS operations in Pakistan	*		
		e. List the services being offered via POS terminals both internationally and locally	*		
		f. Discuss the working methodology of a POS connection/terminal		*	
<b>6.</b>	<b>Emerging Technology trends in Financial Sector</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
<b>6.1</b>	Contact less payment solutions	a. Define the concept of contact less payment solutions	*		
		b. Define the concept of NFD (Near Field Display)	*		
		c. Define the concept of Voice- based transactions	*		
<b>6.2</b>	Branchless banking	a. Define and discuss the concept of branchless banking		*	
<b>6.3</b>	Micro payment solutions	a. Define the concept of micro payment solutions	*		
<b>6.4</b>	Open Source software (alternatives to Microsoft and other propriety products)	a. Recognize the features and benefits of using free & open source software and the areas in which they have been used	*		
		b. Recognize the potential problems with using free & open source software	*		
<b>6.5</b>	Image based cheque processing system	a. Describe the image based cheque processing system		*	
<b>6.6</b>	Biometric ATMs	a. List the features and the functionality of Biometric ATMs	*		
<b>6.7</b>	Store Value Cards	a. List the features and the functionality of Store Value Cards	*		
<b>7.</b>	<b>IT policy in financial institutions</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
	Importance of an organization-wide IT usage policy	a. List the key components essential to an organization wide IT policy	*		
		b. Describe the framework of an optimal IT policy		*	
		c. Define the types of user restrictions that can be implemented through the IT policy	*		
		d. Discuss scheduled back-ups/auto-archiving		*	
		e. Recall Antivirus safeguards	*		
		f. State the importance of data confidentiality	*		
		g. State the importance of IT Governance Framework	*		
<b>8.</b>	<b>IT Vendor Services</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
<b>8.1</b>		a. Discuss the concept of outsourcing and in-sourcing		*	
		b. Define managed services and discuss how and where these services can be used		*	
		c. Discuss third party systems/servers and list the advantages of their usage in banks		*	
<b>9.</b>	<b>IT Security and Risk Mitigation</b>	<b>Candidates should be able to:</b>	<b>K</b>	<b>U</b>	<b>A</b>
<b>9.1</b>	Basic Principles	a. Define IT security methods	*		
		b. Differentiate between authorization and authentication		*	

		c. Define banking IT security standards and processes	*		
		d. Analyze the different ethical issues which may arise due to non-compliance and the manner in which they can be addressed			*
		e. State the importance of electronic signatures	*		
9.2	IT audit framework/standardization	a. Define the IT audit framework	*		
		b. Explain the rationale of conducting IT audit in a financial institution		*	
		c. Differentiate between a good and sub-optimal IT audit framework		*	
		d. State the importance and the purpose of SBP IT Audit	*		
9.3	International standards of IT security	a. Recall the basic international standards of IT security	*		
		b. Describe risk management		*	
		c. Distinguish between a good security management structure with a sub-optimal process		*	
9.4	Business Continuity Plan (BCP)	a. Define the concept of a Business Continuity Plan	*		
		b. List the main features of a good BCP	*		
		c. Describe the impact of not having a BCP		*	
		d. Describe the impact of having a sub-optimal BCP		*	
9.5	Professionalism and ethical standards	a. Describe the core concepts behind a professional and ethical IT framework		*	
10.	<b>IT laws in Pakistan/ Regulatory Framework</b>	<b>Candidates should be able to:</b>		<b>K</b>	<b>U</b> <b>A</b>
10.1	ETO – Electronic Transactions Ordinance	a. Recall the basics of ‘Electronic Transactions Ordinances’	*		
10.2	Cyber Crime Ordinance	a. Recall the basics of cyber crime ordinance	*		
		b. Differentiate the various degrees of criminal offenses		*	
10.3	Emerging card global standards	a. Define emerging card global standards e.g. EMV and PCI/DSS	*		
10.4	State Bank penalties against non-compliance	a. Identify the State Bank penalties against non-compliance	*		

## 8 Scheme of Assessment

a) The pattern of the examination paper along with marks distribution is as follows:

Type of Question	No. of Questions	Marks / Question	Total Marks
MCQs	30	1.5	45
CRQs	9	5	45
ERQs	1	10	10
Total	40		100

b) There will be one examination for the course.

c) The duration of the examination will be 3 hours.

d) All Constructed and Extended Response Questions will be in a booklet which will also serve as an answer script.

### Key Definitions

i) Multiple-Choice Questions (MCQs)

Multiple-choice question is a form of assessment in which respondents are asked to select the best possible answer (or answers) out of a list of choices. Only one answer can be keyed as correct.

ii) Constructed Response Questions (CRQs)

Constructed Response questions are open-ended, short answer questions that measure application-level cognitive skills as well as content knowledge. These questions provide candidates with the opportunity to generate and weave ideas into a short response. The candidate supplies a response in the form of a few sentences, a graphic organizer, or a simple drawing/diagram with explanation.

iii) Extended Response Questions (ERQs)

Extended constructed-response questions are lengthier and more complex exercises that allow for a finer level of discrimination in scoring the responses. Extended-response questions require candidates to consider a situation that demands more than a numerical response or a short verbal communication. Candidates are required to model, as much as possible, real problem solving in a large-scale assessment context.

## 9 Recommended Texts & Reference Materials

### Recommended Readings

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1.	Pakistan, Institute of Bankers	Information Technology in Financial Services 2011
2.	Pakistan, Institute of Bankers	Information Technology in Financial Services

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### Supplementary Readings

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1.	Laudon & Laudon (latest edition available)	Management Information Systems
2.	James A. O'Brien (latest edition available)	Management Information Systems
3.	Efraim Turban (latest edition available)	Electronic Commerce: A Managerial Perspective

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# 10 Definition of Cognitive Levels & Command Words of the SLOs

## i) Cognitive Levels (Knowledge, Understanding and Application)

### Knowledge (K)

This requires knowing and remembering facts and figures, vocabulary and contexts, and the ability to recall key ideas, concepts, trends, sequences, categories, etc. It can be taught and evaluated through questions based on: who, when, where, what, list, define, identify, label, quote, name, state, etc.

### Understanding (U)

This requires understanding information, grasping meaning, interpreting facts, comparing, contrasting, grouping, inferring causes/reasons, seeing patterns, organizing parts, making links, summarizing, solving, identifying motives, finding evidence, etc. It can be taught and evaluated through questions starting with: why, how, show, demonstrate, paraphrase, interpret, summarize, explain, prove, identify the main idea/theme, predict, compare, differentiate, discuss, chart the course/direction, report, solve, etc.

### Application (A)

This requires using information or concepts in new situations, solving problems, organizing information and ideas, using old ideas to create new ones, generalizing from given facts, analyzing relationships, relating knowledge from several areas, drawing conclusions, evaluation worth, etc. It can be taught and evaluated through questions starting with: distinguish, analyze, show relationship, propose an alternative, prioritize, give reasons for, categorize, illustrate, corroborate, compare and contrast, create, design, formulate, integrate, re-arrange, reconstruct/recreate, reorganize, predict consequences etc.

## ii) Definition of Command Words

### Knowledge

Arrange:	To put something in a particular order
Define (the term or terms):	Only a formal statement or equivalent paraphrase is required. No examples need to be given. Specify meaning.
Find:	A general term that may variously be interpreted as calculate, measure, determine etc.
Give:	Provide meaning or quantity or a fact about something
Identify:	Describe with specific examples of how a given term or concept is applied in daily life
List:	Name item-by-item, usually in one or two words, precise information such as dates, characteristics, places, names.
Measure:	To determine extent, quantity, amount or degree of something as determined by measurement or calculation
Name:	Mention the commonly used meanings of things, objects, people, books, etc
Outline:	Implies brevity, i.e. restricting the answer to giving essentials
Recall:	To bring back to mind and write down, as it is given in the text you have already memorized
Recognize:	Involves looking at a given example and stating what it is
Skim:	To read quickly to search for key information

State:	Implies a concise answer with little or no supporting argument
Use:	To deploy the required attribute in a constructed response
Write:	To construct full sentences of continuous prose, not abbreviated text

## Understanding

Acknowledge:	To accept that is true
Appreciate:	To judge with heightened perception or understanding
Arrange:	To put something in particular order
Clarify:	Implies further explanation of any given information that elaborates the key components
Comment:	Present an informed opinion
Compare:	List the main characteristics of two entities clearly identifying similarities (and differences). Identify similarities and differences.
Comprehend:	To understand something that is complicated/difficult
Conceptualize:	Make an understanding on a given topic with the help of examples, graphs and data, etc
Convey:	Use or apply appropriately in context
Deduce:	Go beyond the information given to draw a conclusion which is not explicitly stated in the stimulus material
Describe:	Requires Candidates to state in words (using diagrams where appropriate) the main points of the topic. It is often used with reference either to particular phenomena or to particular experiments. In the former instance, the term usually implies that the answer should include reference to (visual) observations associated with the phenomena.
Develop:	To make an argument or ideas clearer by studying it in more detail. To build a statement
Differentiate:	Identify those characteristics which always or sometimes distinguish two categories
Discuss:	Present advantages and disadvantages or strengths and weakness and give a conclusion
Distinguish:	To identify those characteristics which always or sometimes distinguish between two categories
Draw:	Implies a simple free hand sketch or diagram. Care should be taken with proportions and the clear labeling of parts.
Elaborate:	Clarify or enrich given statements or definitions, by providing relevant details or examples
Eliminate:	To remove a variable from two or more simultaneous equations
Establish:	To prove correct or true on the basis of facts, argument or other evidence to come to conclusion
Explain:	May imply reasoning or some reference to theory, depending on the context
Explore:	To examine or discuss something carefully in order to find out more about it
Express:	Use appropriate vocabulary, language structure and intonation to communicate thoughts and feelings
Follow instruction:	Demonstrate an understanding of the information given especially the required sequence of events
Highlight:	To bring to front, make evident, bring to light, with emphasis
Identify:	Select the most appropriate from many possibilities on the basis of relevant characteristics. It will not normally be expected that the Candidate justifies the choice unless specifically asked to do so.
Illustrate:	To give clear examples to state, clarify or synthesize a point of view
Infer:	Go beyond the information given to identify what is implied but not stated
Interpret:	Clarify both the explicit meaning and the implications of given information
Investigate:	Thoroughly and systematically consider a given problem or a statement in order to find out the result or rule applied

Make a relationship:	Put different items together to develop a set of related data
Outline:	Set out the main characteristics
Paraphrase:	Repeat a text using different words
Point out:	Pick out and recognize specific information from a given content and/or situation
Practice:	Doing an activity or training regularly so that you can improve your skills
Predict/anticipate:	Make inferences about probable/possible turns of event from the information given so far
Present:	To write down in a logical and systematic way in order to make a conclusion or statement
Prove:	Propose a base to support the outcome
Rectify:	To correct something that is wrong
State:	Implies a concise answer with little or no supporting argument
Suggest:	To put forward an idea or a plan
Summarize:	Write a shorter version of a given text capturing the main points and eliminating detail. The writing must be grammatical and the referent of each statement must be clear.
Verify:	To prove, check or determine the correctness and accuracy of laws, rules or reference given in the set task

## Application

Analyze:	Use information to relate different features of the components of specified material so as to draw conclusions about common characteristics. Break information into component parts and identify characteristics.
Advise:	Suggest solutions, with justification, to problems
Apply:	To use the available information in different contexts to relate and draw conclusions
Assess:	Make an informed judgment
Calculate:	Show workings to arrive at a numerical answer
Clarify:	Implies further explanation of any given information that elaborates the key components
Classify:	State a basis for categorization of a set of related entities and assign examples to categories
Compare and Contrast:	Involves (a) listing the main points or characteristics of two distinct and (b) clearly identifying similarities and differences between characteristics
Compose:	Form a piece of writing with a number of parts
Comprehend:	To understand something that is complicated/difficult
Construct:	To bring together given elements in a connected or coherent whole
Convey:	Use or apply appropriately in context
Demonstrate:	To show by argument, facts or other evidences the validity of a statement or phenomenon
Derive:	To arrive at a general formula by calculating step by step
Elaborate:	Clarify or enrich a given statement or definition, by providing relevant details or examples
Evaluate:	Make a judgment based on evidence
Formulate:	To develop a plan or proposal and decide all the details of how it will be done
Portray:	To describe or represent something or someone. To describe or show someone or something in a particular way according to your opinion of them
Predict/anticipate:	Make inferences about probable/possible turns of event from the information given so far
Summarize:	To express the most important facts and ideas in a short and clear form



# Annexure 1 — Transition Process for Mid-stream Candidates

This section pertains to mid-stream JAIBP candidates (i.e. those ISQ candidates who enrolled and appeared for the JAIBP exams prior to July 2011 and have not completed their JAIBP as of July 2011). Mid-stream JAIBP candidates are requested to review this section thoroughly. This section provides mid-stream candidates with the details of the transition process, the impact that the structural changes in the JAIBP program will have on them and how they will be facilitated to complete their JAIBP program under the new structure.

Old Structure	New Structure
<b>Stage 1</b>	
Business Communication for Financial Services *	Business Communication for Financial Services *
Laws Relating to Financial Services **	Introduction to Financial Systems and Banking Regulations **
Accounting for Financial Services ***	Information Technology in Financial Services ***
Macro Economics and Financial System of Pakistan ****	Branch Banking ****
<b>Stage 2</b>	
Information Technology in Financial Services ***	Accounting for Financial Services ***
Lending Operations and Risk Management **	Lending: Products, Operations and Risk Management **
Human Resource Management — Basic Practices **	Human Resource Management and Organizational Behavior **
Marketing of Financial Services ***	Economics **
<b>Stage 3</b>	
Monetary Economics **	Marketing of Financial Services ***
International Trade Finance & Forex Operations *	Finance of International Trade & related Treasury Operations **
Management Accounting for Financial Services *	Management Accounting for Financial Services *

\* Same as before in terms of sequence

\*\* Expansion in contents

\*\*\* Changed the sequence of appearance

\*\*\*\* New or changed course

The structural changes made to the ISQ program are discussed in detail below:

## Stage shifts

- “Accounting for Financial Services” has been moved from Stage 1 to Stage 2
- “Information Technology in Financial Services” has been moved from Stage 2 to Stage 1
- “Marketing of Financial Services” has been moved from Stage 2 to Stage 3

## Course merger/ restructuring

- “Macro Economics and Financial Systems of Pakistan” has been broken into two components:
  - i) The first component, namely “Macro Economics” has been merged with “Monetary Economics” and the resultant course has been named “Economics”

- ii) The second component, namely “Financial System of Pakistan” has been merged with “Laws Relating to Financial Services” and the resultant course has been named “Introduction to Financial Systems & Banking Regulations.”
- This means that the Economics syllabus will now cover both macro and monetary economics, whereas Laws relating to Financial Services and Financial system of Pakistan will be covered in the subject namely, “Introduction to Financial Systems & Banking Regulations.”
  - We have also introduced a new course “Branch Banking” as it is a crucial pillar of the banking sector and requires a dedicated subject for its peculiarities to be addressed in detail.

### Impact of Structural Changes on Mid-stream Candidates

The above-mentioned structural changes of the JAIBP program will impact the mid-stream candidates in several ways. Hence, there is a need to create a ‘bridge’ to help mid-stream candidates who are in the process of completing their course requirements convert to the new JAIBP structure.

The six different ways in which Mid-stream candidates will be affected are as follows:

#### 1 Course Equivalence

The table below details how equivalences for 8 courses (with none or only minor changes) in the existing structure will be handled:

##### Straight Equivalence

Subjects based on Old JAIBP Syllabus	Corresponding Equivalent Subjects In The New JAIBP Syllabus
Subjects with no structural changes:	
If the mid-stream candidate has passed:	s/he will be exempted from:
Business Communication for Financial Services	Business Communication for Financial Services
Accounting for Financial Services	Accounting for Financial Services
Information Technology in Financial Services	Information Technology in Financial Services
Marketing of Financial Services	Marketing of Financial Services
Management Accounting for Financial Services	Management Accounting for Financial Services
Subjects with minor course enhancements:	
If the mid-stream candidate has passed:	s/he will be exempted from:
Lending Operations and Risk Management	Lending: Products, Operations and Risk Management
Human Resource Management — Basic Practices	Human Resource Management and Organizational Behavior
International Trade Finance & FOREX Operations	Finance of International Trade & related Treasury Operations

*If the mid-stream candidate is yet to pass any of the above subjects, now they will have to pass the equivalent subjects as per the new structure*

### **Equivalence for Restructured/ Merged Courses**

For the remaining 3 courses in the JAIBP, namely “Laws Relating to Financial Services,” “Macro Economics and Financial System of Pakistan” and “Monetary Economics,” major structural changes have been made. All possible scenarios for mid-stream candidates have been captured in the 6 cases given below.

#### **Case 1**

In the old JAIBP structure, if the mid-stream candidate has NOT passed both “Laws Relating to Financial Services” and “Macro Economics and Financial System of Pakistan,” s/he will have to appear in “Introduction to Financial Systems & Banking Regulations.”

#### **Case 2**

In the old JAIBP structure, if the mid-stream candidate has passed both “Laws Relating to Financial Services” and “Macro Economics and Financial System of Pakistan,” s/he will be given an exemption in “Introduction to Financial Systems & Banking Regulations” in the new structure.

#### **Case 3**

In the old JAIBP structure, if the mid-stream candidate has only passed “Laws Relating to Financial Services,” or has only passed “Macro Economics and Financial System of Pakistan,” s/he will have to appear in “Introduction to Financial Systems & Banking Regulations” as per the new ISQ structure.

#### **Case 4**

In the old JAIBP structure, if the mid-stream candidate has only passed “Macro Economics and Financial System of Pakistan” and has not passed “Monetary Economics,” s/he will have to appear in “Economics” as per the new ISQ structure.

#### **Case 5**

In the old JAIBP structure, if the mid-stream candidate has passed both “Macro Economics and Financial System of Pakistan” and “Monetary Economics,” s/he will be given an exemption in “Economics” in the new structure.

#### **Case 6**

In the old JAIBP structure, if the mid-stream candidate has passed “Laws Relating to Financial Services,” “Macro Economics and Financial System of Pakistan” and “Monetary Economics,” s/he will be given an exemption in “Introduction to Financial Systems & Banking Regulations” and “Economics” in the new structure.

*NOTE: All mid-stream candidates who have more than 4 courses remaining to complete their JAIBP will have to pass an additional “Branch Banking” course.*

## 2 Stage Completion

Three courses have been moved to align the JAIBP courses better with the requirements in the careers of Pakistani bankers. Details are given in the table below:

Course Name	Stage shift
Accounting for Financial Services	Moved down from Stage 1 to Stage 2
Information Technology in Financial Services	Moved up from Stage 2 to Stage 1
Marketing of Financial Services	Moved down from Stage 2 to Stage 3

Details of how different scenarios will be handled are given below:

- A stage completed by a candidate as per the earlier course structure will remain complete after these changes take effect. However, such mid-stream candidates will be required to fulfill the stage completion requirements as per the new course structure and pass the remaining courses in the next two attempts (i.e. in Winter 2011 and Summer 2012).
- Mid-stream candidates who have started a stage but not yet completed it will now have to fulfill the requirements of stage completion as per the new course structure.

## 3 Stage Commencement Eligibility

All mid-stream candidates will have to comply with the requirements to start the next stage as per the new course structure. Specific cases for each stage are given below:

- To start Stage 2, mid-stream candidates will have to pass at least two courses of Stage 1 as per the new structure and appear for the remaining courses in Stage 1 in the same session.
- To start Stage 3, candidates will have to pass all courses of Stage 1 and at least two courses of Stage 2 as per the new course structure and appear for the remaining courses in Stage 2 in the same session.

## 4 ISQ Completion for Mid-stream Candidates who have 4 or Less Courses Remaining

All mid-stream candidates who have 4 or less courses remaining for completion of their JAIBP will not have to appear for the additional 'Branch Banking' course to complete their JAIBP, provided that they pass the remaining subjects by Summer 2012. However, such candidates can opt to take the "Branch Banking" course if they so wish.

## 5 Additional Time Period and Chances Allowed for Mid-stream Candidates

- i) Mid-stream candidates who have to take the additional Branch Banking Course  
All mid-stream candidates with 5 or more courses remaining will have to take the additional Branch Banking Course under the new structure and will be allowed 12 chances or a time period of 6 years to fulfill their course requirements for the ISQ program.

- ii) Mid-stream candidates who DO NOT take the additional Branch Banking Course  
All mid-stream candidates who complete the ISQ program according to the old structure and have 4 or less courses remaining will be allowed 10 chances or a time period of 5 years to fulfill their course requirements for the ISQ program.

#### **6 Award of Associate Chartered Banker title by UK's Chartered Banker Institute**

All mid-stream candidates who wish to acquire the Associate Chartered Banker title by UK's Chartered Banker Institute will be required to appear for a Comprehensive Test.

*Test schedule and details will be available at a later date.*



**IBP Superior  
Qualification**

**Chartered Banker**

Leading financial professionalism



**The Institute  
of Bankers Pakistan**