



DIPLOMA IN BANKING TECHNOLOGY

Rules & Syllabus 2019

OBJECTIVE

With the thrust on market orientation, globalization, financial and banking sector reforms and competition in the financial sector, banking/ finance professionals face the challenge of continuously innovating and improving their products and services.

Currently banks provide more or less similar products and services. In the face of competition, retaining market has become all the more difficult. Banks can improve upon their business only if bank employees specialize in one or more products and services and carve out a niche for themselves. Further, the need for continuous improvement in the service provided calls for excellence in the performance and specialization. The Institute has, therefore, introduced various diplomas to help the employees of banks/ financial institutions to acquire the required specialization and competence.

Information Technology has impacted banking operations and business substantially. Facilities such as internet banking, ATMs, mobile banking etc. are being used for serving the customers. As banks adopt technology to meet challenges of customer service, the bank staff has to be technically competent. The Diploma in Banking Technology course will equip the bankers to face the challenges arising in advanced banking technology.

ELIGIBILITY

1. Members and Non-Members of the Institute
2. Graduate in any discipline

SUBJECTS OF EXAMINATION

1. Information Technology, Data Communications and Electronic Banking
2. Design, Development and Implementation of Information Systems
3. Security in Electronic Banking

(In addition to the above three papers, the candidates would be required to submit a Project Report on subjects relating to banking technology. The details are given after the syllabus.)

PASSING CRITERIA:

1. Minimum marks for pass in the subject is 50 out of 100.
2. Candidates securing at least 45 marks in each subject with an aggregate of 50% marks in all subjects of examination in a single attempt will also be declared as having completed the Examination.
3. Candidates will be allowed to retain credits for the subject they have passed in an attempt till the expiry of the time limit for passing the examination as mentioned below

TIME LIMIT FOR PASSING THE EXAMINATION:

1. Candidates will be required to pass the examination within a time limit of 2 years (i.e. 4 consecutive attempts)
2. Candidates not able to pass examination within stipulated time period of two years are required to re-enroll themselves afresh. Such candidates will not be granted credit/s for subject/s passed, if any, earlier.
3. Time limit of 2 years will start from the date of application for first attempt. Attempts will be counted irrespective of whether a candidate appears at any examination or otherwise.

EXAMINATION FEES/ REGISTRATION FEES

| Particulars | For Members | For Non-Members |
|--------------------|--------------|-----------------|
| First attempt fee | Rs.4,000/- * | Rs.6,500/- * |
| Second attempt fee | Rs.2,000/- * | Rs.2,000/- * |
| Third attempt fee | Rs.2,000/- * | Rs.2,000/- * |
| Fourth attempt fee | Rs.2,000/- * | Rs.2,000/- * |

* Plus Convenience charges and Taxes as applicable.

Please Note: Candidates are required to Register for every attempt separately.

As a measure to streamline the traffic for registration, Institute will charge regular examination fee to candidates who registers for the examination during the regular open period of registration. **For the extended days of registration, late fee of Rs.200 plus taxes, will be charged in addition to regular examination fee.** This extended days of registration, also gives candidates addition opportunity to register for the examination, having missed the regular open period of registration.

The fee once paid will **NOT** be refunded or adjusted on any account.

MEDIUM OF EXAMINATION:

Examination will be conducted in English only.

PATTERN OF EXAMINATION:

- (i) Question Paper will contain 100 objective type multiple choice questions for 100 marks including questions based on case studies/ case lets. The Institute may however vary the number of questions to be asked for a subject

Questions for the examination will be asked for:

- Knowledge testing
- Conceptual grasp
- Analytical/ logical exposition
- Problem solving
- Case analysis

- (ii) The examination will be held in Online Mode only

- (iii) There will NOT be negative marking for wrong answers

DURATION OF EXAMINATION:

The duration of the examination will be of 2 hours.

PERIODICITY AND EXAMINATION CENTRES:

- Examination will be conducted on pre-announced dates published on IIBF Website. Institute conducts examination on half yearly basis, however periodicity of the examination may be changed depending upon the requirement of banking industry.
- List of Examination centers will be available on the website. (Institute will conduct examination in those centers where there are 20 or more candidates.)

“CLASS OF PASS” CRITERIA:

- The Institute will consider the FIRST PHYSICAL ATTEMPT of the candidate at the examination as first attempt for awarding class. In other words, the candidate should not have attempted any of the subject/s pertaining to the concerned examination any time in the past and has to pass all the subject as per the passing criteria and secure prescribed marks for awarding class. Candidates re enrolling for the examination after exhausting all permissible attempts as per the time limit rule will not be considered for awarding class.
- First Class: 60% or more marks in aggregate and pass in all the subjects in the FIRST PHYSICAL ATTEMPT
- First Class with Distinction: 70% or more marks in aggregate and 60 or more marks in each subject in the FIRST PHYSICAL ATTEMPT.

PROCEDURE FOR APPLYING FOR EXAMINATION

Application for examination should be registered online from the Institute's website www.iibf.org.in. The schedule of examination and dates for registration will be published on IIBF website.

PROOF OF IDENTITY

Non-members applying for Institute's examinations/ courses are required to attach/ submit a copy of any one of the following documents containing Name, Photo and Signature at the time of registration of Examination Application.

Application without the same shall be liable to be rejected.

1) Photo ID Card issued by Employer or 2) PAN Card or 3) Driving License or 4) Election Voter's ID Card or 5) Passport 6) Aadhaar Card

STUDY MATERIAL/ COURSEWARE

The Institute has developed a courseware to cover the syllabus. The courseware (book) for the subject/s will be available at outlets of publisher/s. Please visit IIBF website www.iibf.org.in under the menu "Exam Related" for details of book/s and address of publisher/s outlets. Candidates are advised to make full use of the courseware. However, as banking and finance fields are dynamic, rules and regulations witness rapid changes. Therefore, the courseware should not be considered as the only source of information while preparing for the examinations. Candidates are advised to go through the updates put on the IIBF website from time to time and go through Master Circulars/ Master Directions issued by RBI and publications of IIBF like IIBF Vision, Bank Quest, etc. All these sources are important from the examination point of view. Candidates are also to visit the websites of organizations like RBI, SEBI, BIS, IRDAI, FEDAI etc. besides going through other books & publications covering the subject/ exam concerned etc.

Questions based on current developments relating to the subject/ exam may also be asked.

CUT-OFF DATE OF GUIDELINES/ IMPORTANT DEVELOPMENTS FOR EXAMINATIONS

The Institute has a practice of asking questions in each exam about the recent developments/ guidelines issued by the regulator(s) in order to test if the candidates keep themselves abreast of the current developments.

However, there could be changes in the developments/ guidelines from the date the question papers are prepared and the dates of the actual examinations.

In order to address these issues effectively, it has been decided that:

- (i) In respect of the examinations to be conducted by the Institute for the period February to July of a calendar year, instructions/ guidelines issued by the regulator(s) and important developments in banking and finance up to 31st December will only be considered for the purpose of inclusion in the question papers".
- (ii) In respect of the examinations to be conducted by the Institute for the period August to January of a calendar year, instructions/ guidelines issued by the regulator(s) and important developments in banking and finance up to 30th June will only be considered for the purpose of inclusion in the question papers.

The table given below further clarifies the situation

| Particulars Developments for Examination/s | Cut-off Date of Guidelines/ Important Developments for Examination/s |
|--|---|
| For the examinations to be conducted by the Institute for the period February 2019 to July 2019 | 31st December 2018 |
| For the examinations to be conducted by the Institute for the period August 2019 to January 2020 | 30th June 2019 |

TUTORIAL/ CONTACT PROGRAMMES

Tutorial/ Contact programmes may be organized by the Institute at various centres. For details in this regard candidates may visit Institute's website www.iibf.org.in.

SYLLABUS

The details of the prescribed syllabus which is indicative are furnished in the booklet. However, keeping in view the professional nature of examinations, all matters falling within the realm of the subject concerned will have to be studied by the candidate as questions can be asked on all relevant matters under the subject. Candidates appearing for the examination should particularly prepare themselves for answering questions that may be asked on the latest developments taking place under the various subject/s of the said examination although those topics may not have been specifically included in the syllabus. The Institute also reserves to itself the right to vary the syllabus/ rules/ fee structure from time to time. Any alterations made will be notified from time to time. Further, questions based on current developments in banking and finance may be asked.

Candidates are advised to refer to financial newspapers/ periodicals more particularly "IIBF VISION" and "BANK QUEST" published by the Institute.

PAPER - I: INFORMATION TECHNOLOGY, DATA COMMUNICATIONS & ELECTRONIC BANKING

Section A: Information Technology

1. Computer technology
2. Computer Peripherals (including Touch Screen)
3. Software Technology - Operating System: Latest O/S like LINUX, Windows XP
Data base Systems: RDBMS like Oracle, SQL
4. Computerization in Banks

Section B:

5. Data Communication and Communication products
6. Computer Networks - including Integrated Service Digital Network, Remote Access Server
7. Network Components
8. WAN Communication Environment - including Information Super Highway

Section C:

9. Information System Planning
10. Information System Analysis and Design
11. Information System selection and Procurement
12. Information System Implementation and Management

Section D:

13. Technology Policy Guidelines in India Technology Upgradation in Banking Sector, Dr. A. Vasudevan 1999
Report on Internet Banking, S. R. Mittal, 1999. IT Act 2000, Cyber Law 2000
Report of the Advisory Group of Payment and Settlement System - Part I & II, M. G. Bhide, Sep, 27, 2000.
Report on Working group on Electronic Money - Zarir J. Cama - July 2002 Committee on Payment Systems - Dr. R. H. Patil - Oct 2002
Report of the Committee on Computer Audit - A. L. Narasimhan - Dec 2002 Working Group on Cheque Truncation and E-cheque - Dr. Barma - July 2003 RTGS Regulations 2004
14. Current Trends in IT in Banks Global Networks: ARPANET, NFSNET, INTERNET, USENET NEWS, RTGS, SFMS, SEFT, PDO/ NDS/ SSS/ CFMS
15. Plastic Wallet Technology
16. E-commerce
17. Public Key Infrastructure

PAPER - II: DESIGN, DEVELOPMENT AND IMPLEMENTATION OF INFORMATION SYSTEMS

Section A:

1. MIS and its Structure
2. MIS for Operating Management & Strategic Control

3. Decision Support System & GDSS
4. Information Resource Management & Call Centre
5. Front End Tool - (D2K, SQL * PLUS, PL/ SQL)

Section B:

6. Data Modeling Concepts
7. RDBMS - Oracle/ SQL
8. Database Concurrency Recovery & Security Concepts
9. Determination of Data Requirements for Database
10. Operating System - LINUX

Section C:

11. Intranet
12. Data Marts, Data Warehousing, Data Mining
13. IP Addressing
14. OLAP

Section D:

15. Information Resource Management
16. Business Processes Re-engineering
17. Technology led Products and Delivery Channels
18. Centralized Banking Solutions/ Core Banking
19. RTGS, SFMS

PAPER - III: SECURITY IN ELECTRONIC BANKING

Section A:

1. Computer System Security Concerns
2. Physical Security Environment
3. Hardware Security Environment
4. Logical Security Environment
5. Network Security Environment

Section B:

6. Disaster Recovery and Business Continuity
7. Fault Tolerant Systems
8. Network Trouble Shooting

Section C:

9. Overview of Computer Viruses
10. Detection and Prevention of Computer Viruses
11. Anti-Virus Policies

Section D:

12. Information System Security Policy
13. System Audit Frame Work
14. System Audit Administration and System Controls
15. Computer Crime
16. Computer Crime Management

PROJECT WORK

Operational Modalities of Project Work

The project work is intended to test candidate's virtuosity in Information Technology and judge his ability to independently take charge of project/ system development.

The subject of the project is to be chosen by the candidate on consultation with the project guide which should be approved by the IIBF - Project Evaluation Committee.

The project is to be completed within a period of six months from the date of commencement. An illustrative list of subject areas is given below.

- Comparing, analyzing, standardization of any of the already implemented software and augmenting/ debugging
- Analyze off the shelf software package and parameterizing to suit the bank's requirements for implementation

- Writing/ developing a package by using one of the existing RDBMS packages.
 - a) Executive Information systems
 - b) Office Automation Systems
 - c) Bank Systems Automation like Fixed Assets, Pension Payments
 - d) Security Check Systems
 - e) Auditing Systems
 - f) Accounting Packages
 - g) Database creating/ Data Mining
 - h) MIS Designing
 - i) Any other area relating to Banking
- Planning and designing a system for full computerization of a branch/ networking of branches with appropriate system re-engineering
- Planning and designing an ATM system/ Credit Card System/ Telebanking
- Planning and designing Intranet for the Bank.

This is only an illustrative list of areas for the said work and not exhaustive.

Mode of Operation:

IIBF prescribes following qualification for the experts to act as project guides as under:

From Educational Institutions:

At the rank of Sr. Lecturer and above with a minimum of 5 years' experience in IT area.

OR

From Banking Sector:

Must be a scale III Officer and above with a minimum of three years' service as a Computer Professional in the field of Hardware, Software or Telecommunications.

Guidelines to the candidate to select DBT - Project work

1. Prior approval for carrying out project has to be obtained from IIBF. Request for Approval of subject area of the project may be submitted when the candidate appears for the last paper to save time.
2. Candidates have to submit the following to IIBF:
 - Project details in the prescribed format.
 - Project Synopsis
 - Project guide registration form
3. Project Evaluation Committee (PEC) will approve the project proposals or suggest modifications and communicate to the candidate
4. IIBF may accept the project guide's name submitted by the candidate or IIBF may allot on its own subject to availability.
5. Project has to be completed within the time schedule allotted by IIBF. The candidate has to ensure that it is large enough to be of practical value. Project must be relevant to the Banking Technology.
6. Project work can be taken up only after passing three theory papers and should be completed within 6 months. If the candidate is not able to complete the project work within 6 months IIBF may give an extension of further 6 months to complete the project.
7. If due to any reason the candidate could not complete the project work within the said 12 months IIBF may, at its discretions allow the candidate to take up a new project and complete within one additional period of 12 months.
8. Time extension for project completion has to be obtained from IIBF by submitting reasons for extension and time period for extension.
9. In case the candidate fails to complete the project within the time limit stipulated under (7) above, he/ she will have to re-register for the diploma foregoing the credits obtained for passing the three theory papers and will have to start afresh.

DBT will be awarded only after the project is accepted and the candidate has secured 50% or more marks.

IMPORTANT RULES/ INFORMATION FOR CANDIDATES

1. ADMIT LETTER OF EXAMINATIONS:

- a. Admit letter to all eligible candidates will be emailed to the candidates in their email id registered with the Institute, 10 days before the examination date.
- b. Admit letter of all eligible candidates will be hosted on Institute's website www.iibf.org.in under the menu 'Exam Related', 1 week before the examination date.
- c. For downloading and printing of admit letter from the above mentioned website, candidates will have to enter the following:
 - i. Membership or registration number as **login id**
 - ii. **Edit profile password.**
 - iii. If candidates do not remember their Edit profile password, they have to click on the 'Forgot password/ Get Password' button after entering the Membership or Registration number. On clicking fresh edit profile password will be sent to their registered email id.
- d. Candidates are required to **produce printed copy of admit letter** along with Membership identity card or any other valid photo ID card in original (Aadhaar card/ e-Aadhaar/ Employer's card/ PAN Card/ Driving License/ Election voter's card/ Passport etc.) at the examination venue.
- e. **In the absence of printed copy of Admit Letter and Photo Identity Card, candidates will be denied permission to write Examination.**

2. MOBILE PHONES

- a. Mobile phones and other electronic/ smart gadgets (except calculator as permissible) are not allowed in the examination hall. It is clarified that mere possession of mobile phone and other electronic/ smart gadgets in the examination hall whether in switch off mode or silent mode shall also be deemed to be resorting to adoption of unfair means in the examination.

3. USE OF CALCULATOR

- a. Candidates will be allowed to use battery operated portable calculator in the examination. The calculator can be of any type up to 8 functions i.e. (Addition, Subtraction, Multiplication, Division, Percentage, Sq.-root, Tax+ and Tax -), 12 digits.
- b. Attempt to use any other type of calculator not complying with the specifications indicated above or having more features than mentioned above shall tantamount to use of unfair means. Scientific calculator is not allowed.

4. OTHER RULES/ INFORMATION

- a. Candidates should ensure that they sign the Attendance Sheet.
- b. Candidates are advised to reach the Examination Venue before the reporting time mentioned in the admit letter. **No candidate/s will be permitted to enter the Examination Venue after the gate closing time mentioned in the admit letter.**
- c. **No candidate will be permitted to leave the examination venue in the first 60 minutes from the scheduled start time of the examination.**
- d. **Candidates should occupy the seat mentioned against each subject in the Admit letter.**
- e. Candidates would be able to login to the system only with the password mentioned in this Admit Letter. This password should not be disclosed to others. Keep it safe to avoid the possible misuse.
- f. If the examination could not commence on scheduled time or there is delay due to Failure of power, Technical snag of whatsoever nature or for any such reason having bearing upon the conduct of examination; candidates have to:
 - i. Wait till resumption of power supply/ solving of technical snag.
 - ii. Take-up the examination at other venue arranged by the examination conducting authority.
 - iii. Follow instructions given by the examination conducting authority.

- g. Candidates are required to strictly follow all the instructions given by the examination conducting authority during the examination and adhere to Rules of the examination.
- h. Violation of any of the Rules/ Instructions, misuse of the Admit Letter will be considered to be an act of serious misconduct and the Institute will take action as per the Rules of the examination, which will also be reported to the employer of the candidate.

5. RULES, PENALTIES FOR MISCONDUCT/ UNFAIR PRACTICES:

- 4. Communication of any sort between candidates or with outsiders is not permitted and complete silence should be maintained during the examination.
- 5. Copying answers from other candidates/ other printed/ Electronic material or permitting others to copy or consultation of any kind will attract the rules relating to unfair practices in the examination.
- 6. No candidate shall impersonate others or allow others to impersonate himself/ herself at the examination.
- 7. No candidate shall misbehave/ argue with the Examination Conducting Authorities at the centre.
- 8. Candidates have to compulsory return any papers given including that given for rough work to invigilator.
- 9. Candidates should not possess and/ or use books, notes, periodicals, etc. in the examination hall at the time of examination/ or use mathematical tables, slide rules, stencils etc. during the examination.

If any candidate violates any of the above rules, it will be considered to be an act of misconduct and he/she will be liable for punishment.

PLEASE REFER INSTITUTE'S WEBSITE UNDER THE MENU "EXAM RELATED" FOR DETAILS OF DEBARMENT PERIOD FOR UNFAIR PRACTICES ADOPTED BY CANDIDATES DURING CONDUCT OF INSTITUTE'S EXAMINATIONS.

6. RESULT ADVICE/ CONSOLIDATED MARKSHEET/ FINAL CERTIFICATE

- a. Result Advice of candidates will be hosted on Institute's website on declaration of result, which can be downloaded by the candidates.
- b. Consolidated mark sheet for candidates completing examination having more than one subject, will be available on the Institute's website after the declaration of results. Candidates can download the same after entering login credentials using their membership number and edit profile password.
- c. Final certificates will be sent by speed post within 2 months after the declaration of result.

MULTIPLE CHOICE QUESTIONS (MCQS) AND ANSWERS

"The Institute conducts its examinations through Multiple Choice Questions (MCQs). These MCQs are part of the Question Bank of the Institute and its Intellectual Property. As a matter of policy, these MCQs and their answers will not be shared by the Institute with the candidates or others and no correspondence in this regard will be entertained."

CONTACT DETAILS:

Register your queries through website www.iibf.org.in > Members/ Candidates Support Services (Help) or Email all your queries to care@iibf.org.in

MEMBER SUPPORT SERVICE OFFICE:

Indian Institute of Banking & Finance
191-F, Maker Towers, 19th Floor,
Cuffe Parade, Mumbai - 400 005
Tel.: 022-2218 3302/ 2218 5134

FOR TRAINING/ CONTACT CLASSES RELATED QUERIES CONTACT:

Leadership Centre
Indian Institute of Banking & Finance
Kohinoor City, Commercial-II, Tower-I, 3rd Floor,
Kiorl Road, Off L. B. S. Marg, Kurla West, Mumbai 400 070.
Tel.: 022 25039746/ 9604/ 9907
E-mail: training@iibf.org.in

PROFESSIONAL DEVELOPMENT CENTRES:

| South Zone | North Zone | East Zone |
|--|--|---|
| Indian Institute of Banking & Finance No. 94, Jawaharlal Nehru Road, (100 Feet Road), Opp. Hotel Ambica Empire, Vadapalani, Chennai – 600 026. Tel. : 044-2472 2990/ 2472 8587 E-mail : iibfsz@iibf.org.in | Indian Institute of Banking & Finance 102-113, Vikrant Towers, 1st Floor, 4 Rajendra Place, New Delhi – 110 008. Tel. : 011-2575 2191/ 92 E-mail : iibfnz@iibf.org.in | Indian Institute of Banking & Finance Hindusthan Building (Annexe), 7th Floor, 4, C. R. Avenue, Kolkatta – 700 072. Tel. : 033-2212 4992 E-mail : iibfez@iibf.org.in |

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