AIOU Course Code 1413 - Solved Assignment 1 (Autumn 2026)

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD

Course: Financial Accounting (1413) • Level: AD/B. Com

Semester: Autumn 2026

Assignment No. 1 (Units 1–4) — Total Marks: 100

SOLVED ASSIGNMENT GUIDE

(For Study & Reference)

Note: This guide is prepared for study and reference purposes. Students are advised to read the relevant units of the course book, understand the concepts and the working shown here, and then write the assignment in their own words in their own handwriting. Copying this guide word for word is discouraged.

Question 1: Financial Accounting, Rules of Debit and Credit, and Analysis of Transactions (20 Marks)

Question as printed: (a) Describe Financial Accounting and narrate the rules of Debit and Credit for the classified accounts to record transactions in the books of accounts. (b) The following table shows the effects of five transactions (a through e) on the assets, liabilities, and equity of Vera's Boutique. Write short descriptions of the probable nature of each transaction. Opening balances in the table: Cash $10,500; Accounts Receivable $0; Office Supplies $1,500; Land $9,500; Accounts Payable $0; Vera, Capital $21,500; Revenues $0.

Introduction

Every business, whether it is a small boutique, a trading concern or a large company, takes thousands of decisions on the basis of money: what to buy, what to sell, at what price, on cash or on credit, and whether the business is earning a profit or sliding into loss. None of these decisions can be taken reliably from memory. Financial accounting is the systematic language through which all such money transactions are recorded, classified and summarised so that the owner and other interested parties can see the true financial position and performance of the business. This answer first describes financial accounting, its meaning, features and users; it then narrates the rules of debit and credit for the classified accounts — assets, liabilities, capital, revenues and expenses — which are the working tools of recording; and finally it applies the accounting equation to the five transactions of Vera's Boutique and describes the probable nature of each transaction.

Meaning and Definition of Financial Accounting

Financial accounting is the branch of accounting that is concerned with recording, classifying and summarising the financial transactions of a business and preparing financial statements — principally the income statement and the balance sheet — for internal and external users. The American Institute of Certified Public Accountants defines accounting as "the art of recording, classifying and summarising in a significant manner and in terms of money, transactions and

events which are, in part at least, of a financial character, and interpreting the results thereof." Three ideas in this definition deserve attention. First, only transactions of a financial character, that is, transactions that can be measured in money, are recorded; a manager's skill or workers' honesty, however valuable, cannot enter the books. Second, recording is not a mere diary: entries are classified into ledgers and accounts so that all transactions of one kind come together. Third, the classified data are summarised into financial statements and interpreted, so that raw figures become information on which decisions can rest.

The process of financial accounting moves in a cycle. Transactions are first identified from source documents such as cash memos, invoices and receipts, then recorded in the journal, then posted to ledger accounts, then balanced and tested through a trial balance, and finally converted into an income statement, a statement of owner's equity and a balance sheet. This cycle repeats every accounting period. Financial accounting is governed by generally accepted accounting principles (GAAP) and concepts such as the business entity concept, the money measurement concept, the going concern concept, the accrual and matching concepts, and the dual aspect concept. Of these, the dual aspect concept is the foundation of the recording rules discussed below: every transaction has two equal and opposite effects, so that the accounting equation — Assets = Liabilities + Owner's Equity — always remains in balance.

Users and Importance of Financial Accounting

Financial accounting serves many users. The owner uses it to know profit, capital and drawings; managers use it for planning and control; lenders and banks use it to judge credit-worthiness before advancing loans; suppliers use it before allowing credit; government and tax authorities use it to assess tax; and investors use it before buying shares. Accounting also provides legal evidence of transactions, helps in the valuation of the business when it is sold, and makes comparison with previous years and with other firms possible. Without proper financial accounting, a business cannot prove its results, cannot obtain finance easily, and cannot detect errors and frauds in time. Its limitations should also be noted: it is largely historical, it ignores price-level changes and non-monetary facts, and it can be influenced by the choice of accounting policies; even so, it remains the indispensable base of all other branches such as cost accounting and management accounting.

Classification of Accounts and the Rules of Debit and Credit

Debit (Dr.) simply means the left-hand side of an account and credit (Cr.) the right-hand side; the words carry no meaning of increase or decrease by themselves. Whether a debit increases or decreases an account depends on the class of the account. Accounts are classified into five categories: assets, liabilities, owner's equity (capital), revenues and expenses (drawings behave like a negative capital account). The rules, derived from the accounting equation, are summarised in the table below and then narrated account by account.

Table 1: Rules of debit and credit for the classified accounts

Class of account

Normal balance

Debit (Dr.)

Credit (Cr.)

Examples

Assets

Debit

Increases

Decreases

Cash, Accounts Receivable, Office Supplies, Land, Equipment

Liabilities

Credit

Decreases

Increases

Accounts Payable, Notes Payable, Unearned Revenue

Owner’s Capital

Credit

Decreases

Increases

Vera, Capital; K. Shaw, Capital

Revenues

Credit

Decreases

Increases

Service Revenue, Sales, Fees Earned

Expenses and Drawings

Debit

Increases

Decreases

Rent Expense, Utilities Expense, Owner’s Withdrawals

Asset accounts: Assets are resources owned by the business. An increase in an asset is recorded on the debit side and a decrease on the credit side; hence asset accounts normally show a debit balance. When Vera’s Boutique receives cash, Cash is debited; when it pays cash, Cash is credited. Liability accounts: Liabilities are the claims of outsiders. An increase in a liability is credited and a decrease is debited, so liabilities normally carry a credit balance; buying supplies on credit credits Accounts Payable, and paying the supplier debits it. Capital account: Capital is the owner’s claim on the business and behaves like a liability of the business towards the owner, so investment by the owner is credited and the account normally has a credit balance. Revenue accounts: Revenues increase owner’s equity, therefore they follow the equity rule — increases are

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credited and revenues normally show credit balances. Expense and drawings accounts: Expenses and the owner's withdrawals decrease owner's equity, therefore they follow the opposite rule — increases are debited and they normally show debit balances. A useful memory aid is this: debit all assets, expenses and drawings; credit all liabilities, capital and revenues. In every complete entry, total debits must equal total credits; this equality is the practical test that the dual aspect has been respected.

Part (b): Probable Nature of the Five Transactions of Vera's Boutique

The printed table begins with Cash $10,500 + Accounts Receivable $0 + Office Supplies $1,500 + Land $9,500 = Accounts Payable $0 + Vera, Capital $21,500 + Revenues $0, a total of $21,500 on each side. Each lettered row changes this position while keeping the equation in balance, and the probable transaction behind each row is read by asking which accounts increased and which decreased.

Table 2: Analysis of the five transactions of Vera's Boutique

Transaction

Effect shown in the table

Probable nature of the transaction

a.

Cash –$2,000; Land +$2,000

Purchased land for cash: the boutique paid $2,000 cash and acquired land worth $2,000. One asset was exchanged for another, so total assets and equity are unchanged.

b.

Office Supplies +$500; Accounts Payable +$500

Purchased office supplies on credit: supplies worth $500 were bought and the amount is owed to the supplier, increasing both an asset and a liability.

c.

Accounts Receivable +$950; Revenues +$950

Performed services (or sold services) on credit: work worth $950 was completed for a customer who has not yet paid, so a receivable and revenue of $950 arise.

d.

Cash –$500; Accounts Payable –$500

Paid cash on account: $500 cash was paid to the supplier against the payable created in transaction (b), reducing both cash and the liability.

e.

Cash +$950; Accounts Receivable –$950

Collected cash on account: the customer of transaction (c) paid $950 in cash, converting the receivable into cash; total assets are unchanged.

After all five transactions the closing position is Cash $8,950 + Accounts Receivable $0 + Office

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Supplies $2,000 + Land $11,500 = Accounts Payable $0 + Vera, Capital $21,500 + Revenues $950, that is $22,450 on each side, which agrees with the totals printed in the question and proves that every description above keeps the equation in balance. Notice the instructive contrasts the question is designed to teach. Transactions (a) and (e) merely exchange one asset for another and leave totals unchanged; transaction (b) grows both sides of the equation; transaction (d) shrinks both sides; and transaction (c) is the only one that affects equity, because earning revenue increases the owner's claim. A student who can narrate a row in this way — naming the accounts, the direction of change and the business event that must have caused it — has understood the equation approach, which is the basis of all journalising in the next question.

Conclusion

To conclude, financial accounting is the disciplined process of recording, classifying, summarising and interpreting money transactions so that financial statements can inform owners, managers, lenders and the state. Its recording machinery rests on the dual aspect concept and on clear rules of debit and credit: assets, expenses and drawings are debited when they increase; liabilities, capital and revenues are credited when they increase; and total debits always equal total credits. The Vera's Boutique exercise shows these rules at work in miniature: five ordinary events — buying land for cash, buying supplies on credit, earning revenue on credit, paying a creditor and collecting from a customer — move the accounts exactly as the rules predict, and the accounting equation holds at $22,450 on both sides at the end.

Question 2: Shaw Management Services — Journal, Ledger and Trial Balance (20 Marks)

Question as printed: Shaw Management Services opens for business and completes eleven transactions in November (Nov. 1 owner Kita Shaw invested $30,000 cash along with $15,000 of office equipment; Nov. 2 prepaid $4,500 cash for six months' rent; Nov. 4 credit purchases of office equipment $2,500 and office supplies $600; Nov. 8 completed work and immediately received $3,400 cash; Nov. 12 completed a $10,200 project on credit; Nov. 13 paid $3,100 cash to settle the Nov. 4 payable; Nov. 19 paid $1,800 cash for a 24-month insurance premium; Nov. 22 received $5,200 cash as partial payment for the Nov. 12 work; Nov. 24 completed work for another client for $1,750 on credit; Nov. 28 K. Shaw withdrew $5,300 cash for personal use; Nov. 29 purchased $249 of additional office supplies on credit; Nov. 30 paid $531 cash for this month's utility bill). Required: (1) general journal entries; (2) ledger accounts in balance-column format — Cash (101), Accounts Receivable (106), Office Supplies (124), Prepaid Insurance (128), Prepaid Rent (131), Office Equipment (163), Accounts Payable (201), K. Shaw, Capital (301), K. Shaw, Withdrawals (302), Services Revenue (403), Utilities Expense (690) — with the balance after each posting; (3) a trial balance at the end of November.

Introduction

This question takes the student through the first three steps of the accounting cycle exactly as they occur in a newly opened business. Shaw Management Services begins with no balances at all; every figure in its books is created by the eleven November transactions. The correct method is to journalise each transaction first, checking that debits equal credits in every entry; then to post each debit and credit to its ledger account and rule off a running balance after every posting, as the question expressly requires the balance-column format; and finally to list all the closing balances in

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a trial balance, whose agreement is the arithmetic proof that the posting has been done correctly. The solution below follows that order strictly, and the trial balance at the end balances at $60,599 on each side, which the student should verify line by line.

Part 1: General Journal Entries

Each entry below is dated, the account to be debited is written first and the account to be credited is indented, and a short explanation records the business reason for the entry. Two points of technique deserve note. On November 1 the owner's investment has two debits — Cash and Office Equipment — against one credit to Capital, because the owner contributed two different assets in a single transaction. On November 4 the reverse pattern appears: two debits, Office Equipment and Office Supplies, against one credit to Accounts Payable, because both credit purchases were made from suppliers on the same terms. Compound entries of this kind are perfectly proper so long as total debits equal total credits within the entry.

Table 1: General journal of Shaw Management Services for November

Date

Account titles and explanation

Debit ($)

Credit ($)

Nov. 1

Cash (101) — Dr.

30,000

Office Equipment (163) — Dr.

15,000

K. Shaw, Capital (301) — Cr. (Owner invested cash and equipment)

45,000

Nov. 2

Prepaid Rent (131) — Dr.

4,500

Cash (101) — Cr. (Prepaid six months' rent)

4,500

Nov. 4

Office Equipment (163) — Dr.

2,500

Office Supplies (124) — Dr.

600

Accounts Payable (201) — Cr. (Purchased equipment and supplies on credit)

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3,100

Nov. 8

Cash (101) — Dr.

3,400

Services Revenue (403) — Cr. (Received cash for work completed)

3,400

Nov. 12

Accounts Receivable (106) — Dr.

10,200

Services Revenue (403) — Cr. (Completed project on credit, payable in 30 days)

10,200

Nov. 13

Accounts Payable (201) — Dr.

3,100

Cash (101) — Cr. (Paid Nov. 4 payable in full)

3,100

Nov. 19

Prepaid Insurance (128) — Dr.

1,800

Cash (101) — Cr. (Paid 24-month insurance premium in advance)

1,800

Nov. 22

Cash (101) — Dr.

5,200

Accounts Receivable (106) — Cr. (Partial collection on Nov. 12 project)

5,200

Nov. 24

Accounts Receivable (106) — Dr.

1,750

Services Revenue (403) — Cr. (Completed work on credit)

1,750

Nov. 28

K. Shaw, Withdrawals (302) — Dr.

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5,300

Cash (101) — Cr. (Owner withdrew cash for personal use)

5,300

Nov. 29

Office Supplies (124) — Dr.

249

Accounts Payable (201) — Cr. (Purchased additional supplies on credit)

249

Nov. 30

Utilities Expense (690) — Dr.

531

Cash (101) — Cr. (Paid this month's utility bill)

531

Part 2: Ledger Accounts in Balance-Column Format

Posting transfers every debit and credit above into its own ledger account, and the balance column shows the running balance immediately after each posting, which is the great practical advantage of this format: at any moment the bookkeeper can read off the exact balance of any account without footing the whole account. Cash is the busiest account, with eight postings. Its balance moves from $30,000 after the owner's investment down through the rent, payable, insurance, drawings and utility payments, and up again on the two receipts, closing at a debit balance of $23,369. Accounts Receivable is created on November 12, reduced by the partial collection on November 22 and increased again on November 24, closing at $6,750 debit — the amount clients still owe the firm at month-end. The remaining accounts each receive only one or two postings, but the same discipline applies to all of them.

Table 2: Ledger balances after posting (balance-column format, summarised)

Account

Postings (date: Dr. / Cr.)

Closing balance

Cash (101)

Nov. 1 Dr. 30,000; Nov. 2 Cr. 4,500; Nov. 8 Dr. 3,400; Nov. 13 Cr. 3,100; Nov. 19 Cr. 1,800; Nov. 22 Dr. 5,200; Nov. 28 Cr. 5,300; Nov. 30 Cr. 531

$23,369 Dr.

Accounts Receivable (106)

Nov. 12 Dr. 10,200; Nov. 22 Cr. 5,200; Nov. 24 Dr. 1,750

$6,750 Dr.

Office Supplies (124)

Nov. 4 Dr. 600; Nov. 29 Dr. 249

$849 Dr.

Prepaid Insurance (128)

Nov. 19 Dr. 1,800

$1,800 Dr.

Prepaid Rent (131)

Nov. 2 Dr. 4,500

$4,500 Dr.

Office Equipment (163)

Nov. 1 Dr. 15,000; Nov. 4 Dr. 2,500

$17,500 Dr.

Accounts Payable (201)

Nov. 4 Cr. 3,100; Nov. 13 Dr. 3,100; Nov. 29 Cr. 249

$249 Cr.

K. Shaw, Capital (301)

Nov. 1 Cr. 45,000

$45,000 Cr.

K. Shaw, Withdrawals (302)

Nov. 28 Dr. 5,300

$5,300 Dr.

Services Revenue (403)

Nov. 8 Cr. 3,400; Nov. 12 Cr. 10,200; Nov. 24 Cr. 1,750

$15,350 Cr.

Utilities Expense (690)

Nov. 30 Dr. 531

$531 Dr.

Two balances repay a moment’s reflection because students frequently mis-post them. Accounts Payable was fully settled on November 13, so after that posting its balance was nil; the $249 credit balance at month-end comes solely from the November 29 supplies purchase, which remains unpaid — it is a common error to carry the original $3,100 forward. Similarly, Services Revenue accumulates three separate credits, $3,400 + $10,200 + $1,750 = $15,350, whether the client paid cash, promised to pay in thirty days, or took ordinary credit; under the accrual concept, revenue is recorded when the work is performed, not when the cash arrives. Withdrawals, correctly, are not treated as an expense of the business but as a separate debit account against capital, because the $5,300 was taken for the owner’s personal use and has nothing to do with earning revenue.

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Part 3: Trial Balance as at November 30

The trial balance lists every ledger balance once, debit balances in the left column and credit balances in the right. Its agreement proves that for every debit posted an equal credit was posted, although the student should remember its limits: a trial balance will not reveal a transaction omitted altogether, an entry posted to the wrong account, or two compensating errors. Subject to that caution, the agreement below at $60,599 is the expected evidence that the journalising and posting in Parts 1 and 2 are arithmetically correct.

Trial Balance — Shaw Management Services, November 30

Account

Debit ($)

Credit ($)

Cash (101)

23,369

Accounts Receivable (106)

6,750

Office Supplies (124)

849

Prepaid Insurance (128)

1,800

Prepaid Rent (131)

4,500

Office Equipment (163)

17,500

Accounts Payable (201)

249

K. Shaw, Capital (301)

45,000

K. Shaw, Withdrawals (302)

5,300

Services Revenue (403)

15,350

Utilities Expense (690)

531

Totals

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60,599

60,599

An independent check confirms the result. Total debits posted in the journal are $45,000 + $4,500 + $3,100 + $3,400 + $10,200 + $3,100 + $1,800 + $5,200 + $1,750 + $5,300 + $249 + $531 = $84,130 of gross postings, and when credits in the same accounts are netted off, the surviving balances must — and do — produce equal trial-balance columns. The trial balance also gives a first picture of the new business: it holds $23,369 of cash and $6,750 of receivables, it owes only $249, it has earned $15,350 of revenue against a single recorded expense of $531 (rent and insurance are still prepaid assets until adjusting entries allocate the expired portions), and the owner has already drawn $5,300. A full income statement and balance sheet would require the adjusting process examined in Question 4.

Conclusion

In conclusion, the November records of Shaw Management Services demonstrate the accounting cycle in its simplest complete form. Twelve journal entries (eleven transactions, the first being compound) captured every event with equal debits and credits; posting to balance-column ledger accounts produced running balances, closing with Cash at $23,369 debit and Accounts Payable at only $249 credit; and the trial balance agreed at $60,599 on both sides. The exercise shows why the sequence journal → ledger → trial balance must never be reversed or skipped: the journal preserves the whole story of each transaction with its explanation, the ledger classifies that story by account, and the trial balance tests the arithmetic of the whole before financial statements are attempted.

Question 3: Computer-Based Accounting Systems and AIS Documentation (20 Marks)

Question as printed: (a) Identify an advantage of an integrated computer-based accounting system. (b) Why is documentation important to accounting information systems? Why should accountants be interested in AIS documentation? Also distinguish between document flowcharts, system flowcharts, data flow diagrams, and program flowcharts. How are they similar? How are they different?

Introduction

Modern accounting is inseparable from computers. Even a small firm today records its sales, purchases, payroll and inventory in software rather than in bound ledgers, and in a large organisation the accounting information system (AIS) is woven into purchasing, production, marketing and human resources. This raises two questions that this answer addresses. First, what exactly is gained when the separate computer applications are integrated into one system rather than run as isolated packages? Second, if the system lives inside a computer, why does old-fashioned-looking documentation — charts and diagrams describing the system — still matter, and why must the accountant, and not only the programmer, master it? The answer closes by distinguishing the four standard documentation tools: document flowcharts, system flowcharts, data flow diagrams and program flowcharts.

Part (a): Advantage of an Integrated Computer-Based Accounting System

An integrated computer-based accounting system is one in which a transaction entered once, at its

point of origin, automatically updates every affected module and account — sales, receivables, inventory, cash and the general ledger — from a single shared database. Its outstanding advantage, and the one the question asks to be identified, is that data are captured only once and then shared by all functions, which eliminates duplicate recording, removes the inconsistencies that arise when departments keep separate records, and makes up-to-date information instantly available everywhere. When a sales invoice is raised, stock is reduced, the customer's balance is increased and revenue is posted at the same moment; there is no second clerk re-typing the invoice into a stock system and no month-end discovery that the sales ledger and the stock records disagree.

Several practical benefits flow from this single advantage. Accuracy improves because transcription errors between stages disappear and the system enforces debit-equals-credit automatically. Speed improves because posting, balancing and trial-balance preparation are instantaneous, so monthly accounts and management reports can be produced in hours instead of weeks. Control improves because the system leaves an audit trail, enforces passwords and authorisation limits, and can throw out exception reports — for example every sale made below cost, or every customer who has crossed a credit limit. Decision-making improves because managers work from current, consistent figures rather than from stale departmental summaries. Finally, integration links accounting with the rest of the enterprise: the same database that produces the financial statements also drives re-ordering of inventory, payroll and budgeting, which is precisely what enterprise resource planning (ERP) systems such as SAP and Oracle are built to do. Against these benefits one must record the costs — expensive software, implementation effort, staff training and dependence on computer security — but for any organisation of significant size the advantage of single-capture, shared, real-time data is decisive.

Part (b), First Limb: Why Documentation Is Important to an AIS

Documentation is the complete written and diagrammatic description of how an accounting information system works: what data it takes in, what processes it performs, what files and databases it uses, what controls it contains and what outputs it produces. It is important, first, because a system that exists only in the minds of its designers and operators cannot be managed. Documentation explains how to operate the system day to day — operating instructions and user manuals allow new staff to run it correctly and consistently. Second, it is the basis of training: new accountants, auditors and operators learn the system from its documentation long before they master it in practice. Third, it is indispensable for maintenance and development: when a law changes, a report must be modified or an error corrected, programmers and analysts work from the documented design; without it, every change becomes dangerous guesswork in a live financial system.

Fourth, documentation is central to internal control and audit. Auditors must understand the flow of transactions and the location of controls before they can rely on the system or even design their tests; flowcharts and narratives are the evidence on which that understanding rests, and auditing standards expect the auditor to document the system. Fifth, documentation helps management evaluate and, when necessary, replace the system: competing software cannot be compared sensibly unless the present system's requirements and weaknesses are written down. Sixth, it preserves organisational memory against staff turnover, illness and departure — the "key person" who alone knew how the payroll file worked is a classic control failure. Seventh, in disputes,

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failures and fraud investigations, documentation shows what the system was supposed to do, making it possible to pinpoint where practice departed from design. In short, documentation converts a fragile personal skill into a durable organisational asset.

Why Accountants Should Be Interested in AIS Documentation

Accountants sometimes regard documentation as the computer department's business; that is a mistake, for at least four reasons. Accountants are the principal users of the AIS: they specify the reports, charts of accounts and controls it must contain, and they cannot specify requirements clearly, or judge whether a proposed system meets them, without reading and preparing its documentation. Accountants are also the designers and evaluators of internal control within the system: segregation of duties, authorisation points and reconciliation controls must be visible in the documented design before weaknesses can be spotted. As auditors, accountants are required to obtain and record an understanding of the client's system, so flowcharting and diagramming are professional skills examined and used in practice. Finally, accountants increasingly work as consultants in systems selection and implementation; an accountant who can read a data flow diagram and challenge a system flowchart protects the client from buying software that is elegant but accounting-wise unsound. Documentation literacy is therefore part of professional competence, not an optional technical extra.

The Four Documentation Tools: Similarities and Differences

All four tools are similar in spirit. Each is a diagrammatic language that uses standard symbols to picture a system more clearly than prose can; each helps analysts, accountants and auditors understand, communicate about, evaluate and improve a system; and each concentrates on flows — of documents, of data or of processing logic — rather than on the physical appearance of the system. They differ in what flows they trace, in their level of detail, and in the audience that uses them, as the comparison table shows.

Table 1: Comparison of the four AIS documentation tools

Tool

What it traces

Level / focus

Typical use

Document flowchart

The flow of physical documents and records between departments and people from origin to final filing

Organisational: who handles which document, copies made, files kept

Showing internal control over documents; spotting too many copies, missing approvals, weak segregation of duties

System flowchart

The complete processing system: inputs, computer processes, files/databases, outputs and manual steps in sequence

System-wide but process-oriented; shows hardware, files and the order of operations

Describing how an AIS application (e.g. sales processing) actually runs, for design, audit and maintenance

Data flow diagram (DFD)

The movement of data between external entities, processes, data stores and data flows — purely logical

Logical, not physical: shows what happens to data, deliberately ignoring who, where and on what device

Systems analysis and requirements definition; top-down levels from context diagram to detailed levels

Program flowchart

The detailed step-by-step logic inside a single computer program: sequence, decisions and loops

Most detailed of the four; one program or module only

Program design and debugging by programmers, rarely prepared by accountants except in audit of program logic

The differences can be fixed by three contrasts. A document flowchart follows paper (or its electronic equivalent) through people and departments, so its columns or sections are usually organisational units; a system flowchart follows processing through inputs, files and outputs, so its backbone is the sequence of operations; a DFD follows data itself, and is the only one of the four that deliberately suppresses physical detail — it does not show documents, departments or devices, only sources and destinations of data, processes that transform it and stores that hold it. A program flowchart, by contrast, goes deeper than all the others but narrower: it expands one computer process of a system flowchart into the exact logic a programmer must code, including decision diamonds and repetition loops. In practice the tools are used together and nest inside one another: the DFD states what the system must do, the system flowchart states how the installed system does it, the document flowchart shows the human and paper controls around it, and program flowcharts specify the innermost logic of its programs.

Conclusion

To conclude, integration is the great advantage of modern computer-based accounting: one entry, made once, updates every module from a shared database, giving accuracy, speed, control and current information for decisions. Precisely because so much now happens invisibly inside the machine, documentation becomes more important, not less: it is how the system is operated, taught, maintained, controlled, audited and improved, and accountants — as users, control designers, auditors and advisers — must be able to prepare and interpret it. The four classic tools divide the work between them: document flowcharts trace documents through the organisation, system flowcharts trace processing through the whole application, data flow diagrams trace data logically without physical detail, and program flowcharts specify the detailed logic of a single program. Together they make an invisible system visible, which is the first condition of controlling it.

Question 4: Adjusting Entries at December 31, 2025 (20 Marks)

Question as printed: For each of the following separate cases, prepare adjusting entries required for financial statements for the year ended December 31, 2025. (Assume prepaid expenses are

initially recorded in asset accounts and fees collected in advance of work are initially recorded as liabilities.) (a) One-third of the work related to Rs. 30,000 cash received in advance is performed this period. (b) Wages of Rs. 9,000 are earned by workers but not paid as of December 31, 2025. (c) Depreciation on the company's equipment for 2018 is Rs. 19,127 [figure as printed]. (d) The Office Supplies account had a Rs. 480 debit balance on December 31, 2024; during 2018 [as printed] Rs. 5,349 of office supplies are purchased; a physical count at December 31, 2025 shows Rs. 587 of supplies available. (e) The Prepaid Insurance account had a Rs. 5,000 balance on December 31, 2024; an analysis of policies shows Rs. 2,200 of unexpired insurance benefits remain at December 31, 2025. (f) The company has earned (but not recorded) Rs. 750 of interest from investments in CDs for the year ended December 31, 2025; the interest will be received on January 10, 2026. (g) The company has a bank loan and has incurred (but not recorded) interest expense of Rs. 3,500 for the year ended December 31, 2025; the interest must be paid on January 2, 2026.

Introduction

Adjusting entries are the bridge between bookkeeping and truthful financial statements. During the year, entries are made when cash moves or documents arrive; but the accrual basis of accounting, which the question assumes, requires revenues to be recognised when earned and expenses when incurred, regardless of cash. At the year-end, therefore, every account must be examined and brought up to date: prepayments partly expired, revenues partly earned, expenses incurred but unpaid, and revenues earned but unrecorded. The seven separate cases in this question cover all the standard adjustment families — deferred revenue, accrued expense, depreciation, supplies consumption, prepaid insurance expiry, accrued revenue and accrued interest — and each is worked below with its computation shown before the entry, because in adjustment work the figure, not the form of the entry, is where marks are won and lost.

Case (a): Unearned Fees Partly Earned — Rs. 10,000

Rs. 30,000 was received in advance and, following the instruction in the question, was initially credited to a liability, Unearned Fees (or Fees Received in Advance). By December 31, one-third of the work has been performed, so one-third of the liability has been discharged by performance and has become revenue: Rs. 30,000 × 1/3 = Rs. 10,000. The adjusting entry debits Unearned Fees Rs. 10,000 and credits Fees Earned (Service Revenue) Rs. 10,000. After adjustment the liability stands at Rs. 20,000, correctly representing work still owed to the customer, and the income statement reports the Rs. 10,000 actually earned. Without this entry both revenue and profit would be understated and liabilities overstated by the same amount — a good reminder that an advance from a customer is never revenue on receipt.

Case (b): Accrued Wages — Rs. 9,000

Workers have earned Rs. 9,000 by December 31 but have not been paid. The expense belongs to 2025 because the labour was consumed in 2025; the matching concept therefore requires it in the 2025 income statement even though cash will leave in the next period. The entry debits Wages Expense (Salaries and Wages Expense) Rs. 9,000 and credits Wages Payable (Accrued Wages) Rs. 9,000. The credit creates a current liability that will be cleared when the wages are actually paid in January. Omitting this adjustment is one of the commonest causes of overstated profit in small businesses, because unpaid period-end wages, salaries, rent and utilities are easily forgotten when books are kept close to the cash basis during the year.

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Case (c): Depreciation of Equipment — Rs. 19,127

Depreciation allocates the cost of a long-lived asset over the periods it serves; it is an expense of the period although no cash is paid at the year-end. The charge given in the question for the equipment is Rs. 19,127 (the question paper prints the year as 2018; the amount is applied as the depreciation charge for the year ended December 31, 2025, the statement year named in the question). The entry debits Depreciation Expense — Equipment Rs. 19,127 and credits Accumulated Depreciation — Equipment Rs. 19,127. The credit goes to a contra-asset account rather than directly to Equipment, so that the balance sheet can disclose both the original cost of the equipment and the total depreciation written off to date, the difference being the carrying (book) value. This presentation preserves information that a direct credit to the asset account would destroy.

Case (d): Office Supplies Used — Rs. 5,242

This case requires a computation before any entry can be made. Supplies available during the period were the opening balance plus purchases: Rs. 480 + Rs. 5,349 = Rs. 5,829. The physical count at December 31, 2025 shows only Rs. 587 still on hand, so the supplies consumed as an expense of the period are Rs. 5,829 − Rs. 587 = Rs. 5,242. The adjusting entry debits Office Supplies Expense Rs. 5,242 and credits Office Supplies Rs. 5,242, leaving the asset account at exactly the counted Rs. 587. Two examination points are embedded here. First, the expense is the amount used, never the amount purchased; purchases during the year were debited to the asset account as they occurred (under the assumption stated in the question), and only the year-end adjustment converts the used portion into expense. Second, the physical count is the controlling evidence: book figures are adjusted to the count, not the other way round, and any unexplained shortage is absorbed in the same expense figure.

Case (e): Prepaid Insurance Expired — Rs. 2,800

The Prepaid Insurance account stands at Rs. 5,000, but analysis of the policies shows that only Rs. 2,200 of unexpired benefit remains at December 31, 2025. The expired portion, which is the insurance expense of the period, is therefore Rs. 5,000 − Rs. 2,200 = Rs. 2,800. The entry debits Insurance Expense Rs. 2,800 and credits Prepaid Insurance Rs. 2,800, leaving the asset at the verified Rs. 2,200. The logic is identical to the supplies case: an amount paid in advance is an asset only while the future benefit survives, and each period must be charged with the benefit it has consumed. Note that the computation starts from the unexpired remainder given by the policy analysis rather than from a time fraction, because policies may have different start dates and terms; where the facts give the closing asset directly, expired = opening − closing is the safe and correct route.

Case (f): Accrued Interest Revenue — Rs. 750

The company has earned Rs. 750 of interest on its certificates of deposit (CDs) by December 31, 2025, although the cash will not be received until January 10, 2026. Under accrual accounting the revenue belongs to 2025, the year in which it was earned by the passage of time on the investment. The adjusting entry debits Interest Receivable Rs. 750 and credits Interest Revenue Rs. 750. An asset, the right to receive the interest, is recognised alongside the revenue. When the cash arrives on January 10, the receipt will be debited to Cash and credited to Interest Receivable — not to revenue again — so that the income is counted once, in the correct year. Accrued

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revenues of this kind are the mirror image of accrued expenses: both exist because economic events and cash movements fall in different periods.

Case (g): Accrued Interest Expense — Rs. 3,500

Interest of Rs. 3,500 on the bank loan has been incurred for the year ended December 31, 2025 but is not payable until January 2, 2026. Interest is a textbook time-based expense: it accrues day by day whether or not it has been recorded, and the whole Rs. 3,500 is a cost of 2025. The entry debits Interest Expense Rs. 3,500 and credits Interest Payable Rs. 3,500. The resulting current liability warns readers of the statements that cash of Rs. 3,500 must leave the business two days into the new year. Together, cases (b) and (g) show the accrued-expense pattern in its two commonest forms — unpaid operating costs and unpaid financing costs — and cases (a) to (g) together may now be summarised in one table for revision.

Summary of the seven adjusting entries, December 31, 2025

Case

Adjusting entry — Debit

Adjusting entry — Credit

Amount (Rs.)

(a)

Unearned Fees

Fees Earned

10,000

(b)

Wages Expense

Wages Payable

9,000

(c)

Depreciation Expense — Equipment

Accumulated Depreciation — Equipment

19,127

(d)

Office Supplies Expense

Office Supplies

5,242

(e)

Insurance Expense

Prepaid Insurance

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2,800

(f)

Interest Receivable

Interest Revenue

750

(g)

Interest Expense

Interest Payable

3,500

Conclusion

In conclusion, the seven adjustments convert cash-flavoured records into accrual-based statements that obey the matching concept. Revenues are recognised when earned: Rs. 10,000 of fees previously held as a liability, and Rs. 750 of interest receivable. Expenses are recognised when incurred: wages Rs. 9,000, depreciation Rs. 19,127, supplies consumed Rs. 5,242, insurance expired Rs. 2,800 and loan interest Rs. 3,500. After these entries the balance sheet states assets and liabilities at their true December 31 amounts — supplies Rs. 587, prepaid insurance Rs. 2,200, unearned fees Rs. 20,000, plus the new receivable and payables — and the income statement charges 2025 with everything 2025 consumed and credits it with everything 2025 earned. That, in one question, is the whole purpose of the adjusting process.

Question 5: Financing Receivables — Factoring versus Pledging — and Marketable Securities (20 Marks)

Question as printed: (a) Reliance Traders supply office furniture on credit to private and public sector organisations. Due to loose control over collection, collections do not match disbursements and accounts receivable have accumulated at Rs. 15,500 million. To meet maturing obligations in time, two options are available: (A) Factoring accounts receivable to the extent of 80% at a factoring fee of 6% to an agency. (B) Pledging accounts receivable to the extent of 80% at flat interest of 7% with a bank for taking a loan. (b) Subhan Trading Corporation, having surplus working capital, invested in marketable securities: (1) Purchased 1,500 shares of Kohinoor Mills Ltd of Rs. 100 each par value at Rs. 250 each on 28 September 2024, market value Rs. 300 each on 30 June 2025. (2) Acquired 2,000 shares of Saif Group of Industries Ltd of Rs. 50 each par value at Rs. 85 each on 15 March 2025, market value Rs. 100 each on 30 June 2025. Required: (1) record the purchases; (2) record the increase in market price; (3) present the marketable securities in the financial statements in compliance with the mark-to-market concept.

Introduction

Accounts receivable are both an asset and a problem. Every credit sale creates a receivable, and until the customer pays, the seller’s money is locked in someone else’s hands; when collections are weak, as Reliance Traders admits its collections are, the firm can be profitable on paper and yet unable to pay its own maturing obligations. Part (a) of this question therefore compares the two classic ways of unlocking cash from receivables — selling them to a factor, or pledging them as security for a bank loan — and works both options on the printed figures of Rs. 15,500 million. Part

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(b) turns to the opposite situation: Subhan Trading Corporation has surplus funds and invests them in listed shares, and the question requires the purchase entries, the entry for the rise in market price, and balance-sheet presentation under the mark-to-market (fair value) concept. Both parts are answered with full workings, because the comparison and the presentation turn entirely on the numbers.

Part (a): The Two Options Computed

The base figure is receivables of Rs. 15,500 million, and both options operate on 80% of that amount: Rs. 15,500 million × 80% = Rs. 12,400 million. The remaining 20%, Rs. 3,100 million, stays with Reliance in either case (under factoring it is typically retained by the factor as a reserve against returns and disputes and released as collections are made). Option A, factoring: the factor charges a fee of 6% on the receivables factored, that is Rs. 12,400 million × 6% = Rs. 744 million. Cash received immediately is therefore Rs. 12,400 − Rs. 744 = Rs. 11,656 million. In journal form, treating the factoring as a sale of the receivables (the usual factoring arrangement): Cash debited Rs. 11,656 million, Factoring Fee (Loss on Sale of Receivables) debited Rs. 744 million, Accounts Receivable credited Rs. 12,400 million; the un-factored Rs. 3,100 million of receivables remains in the books. Option B, pledging: the bank lends 80% of the receivables, Rs. 12,400 million, at flat interest of 7%, that is Rs. 12,400 million × 7% = Rs. 868 million of interest cost for the loan period. The entry is Cash debited Rs. 12,400 million, Notes (Loan) Payable credited Rs. 12,400 million, with the pledge of receivables disclosed; the receivables themselves remain assets of Reliance, collections remain Reliance's duty, and the interest of Rs. 868 million is charged as finance cost over the loan period.

Table 1: Factoring versus pledging for Reliance Traders (Rs. million)

Item

Option A: Factoring

Option B: Pledging

Receivables used (80% of Rs. 15,500m)

Rs. 12,400 million

Rs. 12,400 million

Charge

Factoring fee 6% = Rs. 744 million

Interest 7% = Rs. 868 million

Immediate cash

Rs. 11,656 million (net of fee)

Rs. 12,400 million loan (interest payable over/as per loan terms)

Receivables on balance sheet

Factored portion removed (sold); Rs. 3,100m remains

All Rs. 15,500m remains, disclosed as pledged

Loan liability on balance sheet

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2,000 × Rs. 100 = Rs. 200,000, an unrealised gain of Rs. 200,000 − Rs. 170,000 = Rs. 30,000. The total unrealised gain is Rs. 75,000 + Rs. 30,000 = Rs. 105,000, raising the portfolio from cost Rs. 545,000 to market value Rs. 650,000. Under the mark-to-market treatment required by the question, this increase is recorded in the books: the entry at June 30, 2025 debits Marketable Securities — Fair Value Adjustment (Allowance to Adjust Investments to Market) Rs. 105,000 and credits Unrealised Gain on Marketable Securities Rs. 105,000 (presented in the income statement or, under the applicable reporting framework for such investments, as part of profit or other comprehensive income as the framework prescribes). The gain is called unrealised because no shares have been sold; it exists because the market would pay that much today, and it will be revised at every subsequent balance-sheet date as prices move.

Table 2: Cost, market value and unrealised gain of Subhan's investments

Company

Shares

Cost per share (Rs.)

Total cost (Rs.)

Market per share, 30 June 2025 (Rs.)

Market value (Rs.)

Unrealised gain (Rs.)

Kohinoor Mills Ltd

1,500

250

375,000

300

450,000

75,000

Saif Group of Industries Ltd

2,000

85

170,000

100

200,000

30,000

Total portfolio

545,000

650,000

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105,000

Part (b): Presentation in the Financial Statements

In the balance sheet as at June 30, 2025 the investments appear under current assets (they are marketable securities held for short-term gain from surplus working capital) at their market value of Rs. 650,000, with cost disclosed: “Marketable Securities — at market value (cost Rs. 545,000): Kohinoor Mills Ltd Rs. 450,000; Saif Group of Industries Ltd Rs. 200,000 — Total Rs. 650,000”, the amount being built up in the accounts as cost Rs. 545,000 plus the fair value adjustment of Rs. 105,000. This is the essence of the mark-to-market concept: the balance sheet reports what the securities are currently worth, not merely what was paid for them, so that users see the realisable value of the firm’s liquid resources at the reporting date. The unrealised gain of Rs. 105,000 is reported in the performance statement for the year as an unrealised holding gain, clearly labelled as unrealised so that no reader mistakes it for cash profit available from completed transactions. Two cautions complete a proper presentation: dividends, if any are received on these shares, are separate investment income and are not netted against the holding gain; and if market values later fall, the same adjustment mechanism is used in reverse, writing the portfolio down through an unrealised loss, because mark-to-market is a symmetrical discipline and not merely a device for recognising good news.

Conclusion

To conclude, receivables can be turned into cash in two fundamentally different ways: factoring sells them — for Reliance Traders, 80% of Rs. 15,500 million is Rs. 12,400 million, the 6% fee is Rs. 744 million and immediate cash is Rs. 11,656 million — while pledging borrows against them, raising the same Rs. 12,400 million as a loan at a higher cost of Rs. 868 million in interest and leaving collection and default risk at home; for a firm whose core problem is weak collection, factoring is both cheaper and strategically better. Subhan Trading Corporation illustrates the investing side of working capital: purchases are recorded at cost (Rs. 375,000 and Rs. 170,000; total Rs. 545,000), the rise in market prices to a portfolio value of Rs. 650,000 is recorded through a fair value adjustment and an unrealised gain of Rs. 105,000, and the balance sheet presents the securities at market value with cost disclosed, exactly as the mark-to-market concept requires.

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