CBSE Class 12 Accountancy Question Paper 2020 with Solution PDF-Set 67-2-1

Question Paper with Solutions

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 3 hours **Maximum Marks: 80**

General Instructions

(i) This question paper comprises **two** Parts – **A** and **B**. There are **32** questions in the question paper. **All** questions are compulsory.

(ii) **Part A is compulsory** for all candidates.

(iii) **Part B** has two options i.e. (1) Analysis of Financial Statements and (2) Computerized Accounting. You have to attempt only **one** of the given options.

(iv) **Heading of the option** opted must be written on the Answer-Book before attempting the questions of that particular **OPTION**.

(v) Question nos. **1 to 13** and **23 to 29** are very short answer type questions carrying **1** mark each.

(vi) Question nos. **14** and **30** are short answer type–I questions carrying **3** marks each.

(vii) Question nos. **15 to 18** and **31** are short answer type–II questions carrying **4** marks each.

(viii) Question nos. **19, 20** and **32** are long answer type–I questions carrying **6** marks each.

(ix) Question nos. **21** and **22** are long answer type–II questions carrying **8** marks each.

(x) Answers should be brief and to the point. The answer of each part should be written at one place.

(xi) There is no overall choice. However, an internal choice has been provided in **2** questions of three marks, **2** questions of four marks, **1** question of six marks and **2** questions of eight marks. You have to attempt only one of the choices in such questions.

(xii) However, separate instructions are given with each part and question, wherever necessary.

Part A (60 marks)

(Accounting for Not-for-Profit Organizations, Partnership Firms and Companies)

1. Srishti, Nitya and Anand were partners in a firm sharing profits and losses in the ratio of 3 : 2 : 1. Srishti retired from the firm selling her share of profits to Nitya and Anand in the ratio of 2 : 1. The new profit sharing ratio between Nitya and Anand will be: [1 mark]

(A) 3 : 2

(B) 17 : 11

(C) 2 : 1

(D) 19 : 11

Correct Answer: (C) 2 : 1

Solution:

Concept:

- A continuing partner's new share equals the old share plus the share acquired from the retiring partner.
- The retiring partner's share is divided in the stated gaining ratio; capital balances do not determine the new profit-sharing ratio.

Step 1: Calculate the shares acquired Srishti's old share is $3/6 = 1/2$. Nitya and Anand acquire this share in the ratio $2 : 1$. Therefore, Nitya gains $(1/2)(2/3) = 1/3$, and Anand gains $(1/2)(1/3) = 1/6$.

Step 2: Add the gains to the old shares Nitya's old share is $2/6 = 1/3$, while Anand's old share is $1/6$. Their new shares are

$$\text{Nitya} = \frac{1}{3} + \frac{1}{3} = \frac{2}{3},$$
$$\text{Anand} = \frac{1}{6} + \frac{1}{6} = \frac{1}{3}.$$

They sum to one. The ratios $3 : 2$, $17 : 11$ and $19 : 11$ do not represent these calculated shares.

Step 3: Conclusion The new profit-sharing ratio of Nitya and Anand is $2 : 1$. Hence, the correct option is (C).

Quick Tip to Solve: When the continuing partners' old ratio equals their gaining ratio, their relative profit-sharing ratio remains unchanged.

2. Which of the following is not a revenue receipt? [1 mark]

(A) Donations for Tournament

(B) Government Grants

(C) Subscriptions

(D) Entrance Fees

Correct Answer: (A) Donations for Tournament

Solution:

Concept:

- Revenue receipts relate to ordinary activities and are generally available for the organisation's recurring expenditure.
- A donation earmarked for a specific purpose is credited to the corresponding special fund rather than treated as ordinary revenue.

Step 1: Identify the restricted receipt Donations for Tournament are collected for the specified tournament purpose. They are credited to the Tournament Fund and are not general income of the organisation. The restriction distinguishes them from a general donation.

Step 2: Compare the remaining receipts Subscriptions are ordinary recurring income. In the absence of any stated capital purpose or contrary policy, the government grants and entrance fees listed here are treated as revenue receipts. A grant for a specifically stated capital purpose would need different treatment, but no such restriction is given for option (B).

Step 3: Conclusion Donations for Tournament are not a revenue receipt. Hence, the correct option is (A).

Quick Tip to Solve: Look for a named purpose: a tournament donation belongs to its special fund, whereas an unrestricted receipt is assessed as ordinary income.

3. Nominal share capital is: [1 mark]

(A) That part of authorised capital which is issued by the company.

(B) The amount of capital which is actually applied by prospective shareholders.

(C) The amount of capital which is paid by the shareholders.

(D) The maximum amount of share capital that a company is authorised to issue.

Correct Answer: (D) The maximum amount of share capital that a company is authorised to issue.

Solution:

Concept:

- Nominal capital, authorised capital and registered capital refer to the maximum share capital a company is authorised to issue under its memorandum.
- Issued, subscribed and paid-up capital describe successive actual portions of capital, rather than the authorised ceiling.

Step 1: Identify the defining feature Nominal share capital fixes the upper limit of share capital the

company may issue under its existing authorisation. It is not measured by applications received or cash already collected from shareholders.

Step 2: Match the other definitions Option (A) describes issued capital, the portion offered for subscription. Option (B) describes subscribed capital, the portion applied for by prospective shareholders. Option (C) describes paid-up capital, the amount paid by shareholders. Thus none of these three is the authorised maximum.

Step 3: Conclusion Nominal share capital is the maximum amount of share capital that a company is authorised to issue. Hence, the correct option is (D).

Quick Tip to Solve: Associate nominal with the authorised ceiling; issued, subscribed and paid-up refer to progressively actual portions of that capital.

4. Aditya and Shiv were partners in a firm with capitals of ₹ 3,00,000 and ₹ 2,00,000, respectively. Naina was admitted as a new partner for 1/4th share in the profits of the firm. Naina brought ₹ 1,20,000 for her share of goodwill premium and ₹ 2,40,000 for her capital. The amount of goodwill premium credited to Aditya will be: [1 mark]

(A) ₹ 40,000

(B) ₹ 30,000

(C) ₹ 72,000

(D) ₹ 60,000

Correct Answer: (D) ₹ 60,000

Solution:

Concept:

- In the absence of an agreed profit-sharing ratio, partners share profits equally, irrespective of their capital balances.
- Goodwill premium brought by an incoming partner is credited to the sacrificing partners in their sacrificing ratio.

Step 1: Determine the sacrificing ratio The question gives Aditya's and Shiv's capitals but no profit-sharing agreement. Their old profit shares are therefore equal. As no different sacrifice is specified on Naina's admission, both sacrifice equally, so the sacrificing ratio is $1 : 1$. The capital ratio $3 : 2$ does not replace the profit-sharing ratio.

Step 2: Allocate the goodwill premium Naina brings Rs 1,20,000 as her share of goodwill premium. Aditya's credit is

$$\text{Rs } 1,20,000 \times \frac{1}{2} = \text{Rs } 60,000.$$

Rs 72,000 incorrectly uses the capital ratio; Rs 30,000 incorrectly applies Naina's one-fourth share again to the premium already brought. Rs 40,000 also does not follow the equal sacrifice. Naina's Rs 2,40,000 capital is a separate contribution.

Step 3: Conclusion The goodwill premium credited to Aditya is Rs 60,000. Hence, the correct option is (D).

Quick Tip to Solve: Do not infer a profit-sharing ratio from capitals: without an agreement use equal shares, and divide only the goodwill premium by the sacrificing ratio.

5. Distinguish between Income and Expenditure Account and Receipts and Payments Account on the basis of 'Nature of items'. [1 mark]

Solution:

Concept:

- Income and Expenditure Account measures the surplus or deficit from revenue activities for an accounting period.
- Receipts and Payments Account summarises cash and bank transactions, whether capital or revenue in nature.

Step 1: State the nature of Income and Expenditure items Income and Expenditure Account records only revenue items, such as subscriptions earned and salaries incurred. Capital items, such as the purchase of furniture, are excluded from this account, although revenue depreciation on furniture is included.

Step 2: State the nature of Receipts and Payments items Receipts and Payments Account records both capital and revenue receipts and payments whenever cash or bank is affected. Thus the cash purchase of furniture and the cash payment of salaries both appear in it. Its classification is based on receipts and payments rather than solely on revenue character.

Step 3: Conclusion Income and Expenditure Account: revenue items only. Receipts and Payments Account: both capital and revenue items.

Quick Tip to Solve: Use furniture purchase as the check: it enters Receipts and Payments, while Income and Expenditure records its depreciation instead.

6. Vidit and Seema were partners in a firm sharing profits and losses in the ratio of 3 : 2. Their capitals were ₹ 1,20,000 and ₹ 2,40,000, respectively. They were entitled to interest on capitals @ 10% p.a. The firm earned a profit of ₹ 18,000 during the year. The interest on Vidit's capital will be: [1 mark]

(A) ₹ 12,000

(B) ₹ 10,800

(C) ₹ 7,200

(D) ₹ 6,000

Correct Answer: (D) ₹ 6,000

Solution:

Concept:

- Unless the partnership agreement makes it a charge, interest on capital is an appropriation of profit and is restricted to the available profit.
- When profit is insufficient, allocate it in the ratio of the partners' calculated interest entitlements, not their profit-sharing ratio.

Step 1: Calculate the full interest entitlements At 10% per annum, the interest amounts before applying the profit limit are

$$\text{Vidit} = 1,20,000 \times 10\% = \text{Rs } 12,000,$$
$$\text{Seema} = 2,40,000 \times 10\% = \text{Rs } 24,000.$$

Their total claim is Rs 36,000, which exceeds the available profit of Rs 18,000.

Step 2: Restrict interest to the available profit The interest claims are in the ratio $12,000 : 24,000 = 1 : 2$. Vidit's allowed interest is

$$\text{Rs } 18,000 \times \frac{1}{3} = \text{Rs } 6,000.$$

Rs 12,000 ignores the profit shortage. Rs 10,800 and Rs 7,200 are obtained by applying the profit-sharing ratio $3 : 2$, which is not the basis for allocating insufficient interest on capital.

Step 3: Conclusion Interest on Vidit's capital is Rs 6,000. Hence, the correct option is (D).

Quick Tip to Solve: First total the contractual interest. If profit is smaller, divide available profit in the interest-entitlement ratio, not the profit-sharing ratio.

7. At the time of admission of a new partner in the firm, the new partner compensates the old partners for their loss of share in the super-profits of the firm for which he brings in an additional amount which is known as _____. [1 mark]

Solution:

Concept:

- Goodwill reflects the firm's capacity to earn super-profits because of advantages such as reputation and customer loyalty.
- An incoming partner compensates the old partners for the share of future profits they sacrifice; this compensation is distinct from capital.

Step 1: Identify what the incoming partner acquires Admission gives the new partner a share in the profits of an established firm. The old partners surrender part of their entitlement, including their share in its super-profits. The additional payment compensates them for that sacrifice.

Step 2: Identify the additional contribution The compensation brought in addition to the incoming partner's capital contribution is called premium for goodwill. It is credited to the sacrificing old partners in their sacrificing ratio; it is not an extra profit-sharing ratio or interest on capital.

Step 3: Conclusion The blank is **premium for goodwill** (goodwill premium).

Quick Tip to Solve: Separate the two contributions on admission: capital funds the business, while goodwill premium compensates old partners for their sacrifice.

8. Pragya Ltd. forfeited 8,000 equity shares of ₹ 100 each issued at a premium of 10% for non-payment of first and final call of ₹ 30 per share. The maximum amount of discount at which these shares can be reissued will be: [1 mark]

(A) ₹ 80,000

(B) ₹ 3,20,000

(C) ₹ 5,60,000

(D) ₹ 2,40,000

Correct Answer: (C) ₹ 5,60,000

Solution:

Concept:

- The maximum discount on reissue of forfeited shares cannot exceed the amount forfeited on those shares.
- The Share Forfeiture balance comprises capital money already received; securities premium received is excluded from it.

Step 1: Find capital received on the forfeited shares The shares have a face value of Rs 100 each, and the unpaid first and final call is Rs 30 per share. Therefore, capital received per share is

$$\text{Rs } 100 - \text{Rs } 30 = \text{Rs } 70.$$

The 10% issue premium is Rs 10 per share and is not part of the capital forfeited.

Step 2: Calculate the reissue discount ceiling For 8,000 shares, the forfeited capital is

$$8,000 \times \text{Rs } 70 = \text{Rs } 5,60,000.$$

This balance is the maximum permissible discount. Rs 80,000 is the total issue premium, and Rs 2,40,000 is the unpaid call amount. Neither measures capital already received. Rs 3,20,000 is also not the forfeiture balance.

Step 3: Conclusion The maximum total discount on reissue is Rs 5,60,000. Hence, the correct option is (C).

Quick Tip to Solve: Subtract unpaid capital from face value, then multiply by the forfeited shares; keep securities premium out of the discount ceiling.

9. What is meant by 'Issue of Debentures as a Collateral Security'? [1 mark]

Solution:

Concept:

- Collateral security is additional or secondary security provided to a lender over and above the primary security for a loan.
- Debentures issued as collateral do not bring a separate receipt of money; they secure an existing borrowing.

Step 1: Explain the issue Issue of debentures as collateral security means giving debentures to a bank or other lender as additional security for a loan already obtained or being obtained. The lender advances money under the loan arrangement, while the debentures provide a secondary safeguard.

Step 2: Explain when the security operates If the company repays the loan according to its terms, the collateral debentures are returned or become ineffective. If the company defaults and the primary security is insufficient, the lender may use the collateral debentures to recover the outstanding amount, subject to the loan terms.

Step 3: Conclusion It is the issue of debentures to a lender as additional security for a loan, over and above the primary security.

Quick Tip to Solve: Remember collateral as a backup: the loan brings funds, while collateral debentures provide extra protection to the lender.

10. Utsav Ltd. decided to redeem its 4,000, 9% Debentures of ₹ 100 each which were issued at a discount of 8%, and were redeemable at a premium of 10%. The amount transferred to Debenture Redemption Reserve will be: [1 mark]

(A) ₹ 4,00,000

(B) ₹ 2,00,000

(C) ₹ 1,10,000

(D) ₹ 1,00,000

Correct Answer: (D) ₹ 1,00,000

Solution:

Concept:

- Under the CBSE treatment applicable to this question, Debenture Redemption Reserve (DRR) is created at 25% of the nominal value of debentures to be redeemed.
- The nominal value is the number of debentures multiplied by their face value. Issue discount and redemption premium do not change this base.

Step 1: Determine the nominal value Utsav Ltd. will redeem 4,000 debentures of Rs 100 each. Therefore,

$$\text{Nominal value} = 4,000 \times 100 = \text{Rs } 4,00,000.$$

The 9% rate determines interest; it is not the rate used to create DRR.

Step 2: Apply the reserve percentage

$$\text{DRR} = 4,00,000 \times \frac{25}{100} = \text{Rs } 1,00,000.$$

Rs 4,00,000 is the entire face value, and Rs 2,00,000 incorrectly uses 50%. Rs 1,10,000 incorrectly includes the 10% redemption premium in the reserve base. The 8% issue discount is also irrelevant to this calculation.

Step 3: Conclusion The amount transferred to Debenture Redemption Reserve is Rs 1,00,000. Hence,

the correct option is (D).

Quick Tip to Solve: Calculate DRR on face value: ignore the interest rate, issue discount and redemption premium when choosing its base.

11. 'Interest paid on debentures is a charge against the profits of the company.' Is this statement correct? Give reason in support of your answer. [1 mark]

Solution:

Concept:

- Debentures represent borrowed funds; debentureholders are creditors of the company.
- Interest on borrowed funds is a finance cost and a charge against profit, whereas a distribution to owners is an appropriation of profit.

Step 1: Identify the company's obligation The company must pay interest to its debentureholders at the agreed rate for using their funds. This contractual expense arises whether the company earns a profit or incurs a loss.

Step 2: Explain the treatment of interest Debenture interest is deducted in determining the company's profit or loss for the period. Its payment does not depend on the availability of distributable profit, so it is a charge against profit and not an appropriation of profit.

Step 3: Conclusion Yes, the statement is correct. Debenture interest is payable irrespective of profit or loss and is charged in arriving at the company's profit or loss.

Quick Tip to Solve: Distinguish creditors from owners: interest on debentures is an expense, while dividend is a distribution of profit.

12. From the given extracts obtained from the Receipts and Payments Account of Cheema Club for the year ended 31st March, 2019 and additional information, calculate the amount of subscription in arrears as on 31st March, 2019.

Subscriptions Received	₹
2017-18	10,000
2018-19	1,20,000
2019-20	7,000

Additional Information: The Club had 130 members paying an annual subscription of ₹ 1,000 each. Subscriptions in arrears at the beginning of the year were ₹ 16,000. 10 members paid subscriptions for 2018-19 in 2017-18. [1 mark]

Solution:

Concept:

- Closing subscription arrears include unpaid amounts for both the current year and earlier years.
- Current-year subscription income equals the number of members multiplied by the annual sub-

scription. Amounts received in advance last year for this year settle part of that entitlement.

Step 1: Check the current year's subscription

$$\text{Subscription due for 2018–19} = 130 \times 1,000 = \text{Rs } 1,30,000.$$

Ten members had already paid Rs 10,000 for 2018–19 during 2017–18, and Rs 1,20,000 for 2018–19 was received during the current year.

$$\text{Current-year arrears} = 1,30,000 - 10,000 - 1,20,000 = \text{Nil}.$$

Step 2: Carry forward the unpaid earlier dues Opening arrears were Rs 16,000, of which Rs 10,000 relating to 2017–18 was collected during the year. The remaining earlier-year arrears are

$$16,000 - 10,000 = \text{Rs } 6,000.$$

The Rs 7,000 received for 2019–20 is an advance for the next year; it does not reduce arrears for earlier periods.

Step 3: Conclusion Subscription in arrears as on 31st March, 2019 is Rs 6,000, entirely relating to the earlier year.

Quick Tip to Solve: Find current-year arrears separately, then add unpaid opening arrears; do not subtract next year's advance.

13. The directors of Axim Ltd. forfeited 20,000 equity shares of ₹ 10 each, ₹ 8 per share called up for non-payment of first call of ₹ 2 per share. Final call of ₹ 2 per share has not been yet called. Half of the forfeited shares were reissued as fully paid up for ₹ 15 per share. The amount transferred to Capital Reserve will be: [1 mark]

(A) ₹ 2,00,000

(B) ₹ 1,20,000

(C) ₹ 60,000

(D) ₹ 40,000

Correct Answer: (C) ₹ 60,000

Solution:

Concept:

- Share Forfeiture Account is credited with the capital amount already received on forfeited shares, excluding unpaid calls.
- On reissue, the forfeiture amount attributable only to shares reissued, less any reissue discount, is transferred to Capital Reserve.

Step 1: Compute the amount forfeited per share Rs 8 per share was called up, and the first call of Rs

2 was unpaid. The amount received per share was therefore

$$8 - 2 = \text{Rs } 6.$$

The final call of Rs 2 had not been made, so it is not an unpaid call at forfeiture. Total forfeiture was $20,000 \times 6 = \text{Rs } 1,20,000$.

Step 2: Identify the realised forfeiture profit Only half the forfeited shares, or 10,000 shares, were reissued. Their forfeiture amount is

$$10,000 \times 6 = \text{Rs } 60,000.$$

Reissue at Rs 15 as fully paid Rs 10 shares involves a premium of Rs 5, not a discount. Hence no deduction from forfeiture is needed. Rs 1,20,000 relates to all forfeited shares; Rs 2,00,000 is their total face value. Rs 40,000 does not represent the amount received on the reissued shares. The reissue premium is credited separately to Securities Premium.

Step 3: Conclusion Rs 60,000 is transferred to Capital Reserve. Hence, the correct option is (C).

Quick Tip to Solve: Use only the reissued 10,000 shares and the Rs 6 already received per share; reissue premium does not increase Capital Reserve.

14. How will the following information of Royal Sports Club be presented in the Income and Expenditure Account for the year ended 31st March, 2019 and its Balance Sheet as on that date?

Particulars	Amount (₹)
Tournament Fund as on 1st April, 2018	5,00,000
Tournament expenses incurred during the year	8,00,000
Donations for Tournament Fund received during the year	1,20,000
Sale of Tournament tickets during the year	1,50,000

[3 marks]

Solution:

Concept:

- Receipts restricted to a specific purpose are credited to that specific fund. Expenses for the same purpose are first charged against the fund.
- If the expenses exceed the opening fund and related receipts, only the excess is charged to the Income and Expenditure Account. An exhausted fund has no closing liability balance.

Step 1: Determine the resources available for the tournament **Working Notes**

The opening Tournament Fund, donations for that fund and ticket sales are all available to meet tournament expenses. They are not separately credited as general income when a specific fund exists.

$$\text{Available fund} = 5,00,000 + 1,20,000 + 1,50,000 = \text{Rs } 7,70,000.$$

Expenses of Rs 8,00,000 exceed these resources by

$$8,00,000 - 7,70,000 = \text{Rs } 30,000.$$

Step 2: Show the charge to the Income and Expenditure Account The available fund is used fully. Only the excess tournament expense is a charge against the club's general income for the year.

Royal Sports Club

Income and Expenditure Account (Extract)
for the year ended 31st March, 2019

Dr.			Cr.
Expenditure	Rs	Income	Rs
To Tournament expenses (excess)	30,000		

Step 3: Show the closing fund in the Balance Sheet The adjustment below explains why no Tournament Fund balance remains on the liabilities side. A negative specific fund is not carried forward as a liability; the shortfall has already been charged above.

Royal Sports Club
Balance Sheet (Extract) as on 31st March, 2019

Liabilities	Amount (Rs)
Tournament Fund: opening balance	5,00,000
Add: Donations for Tournament Fund	1,20,000
Add: Sale of tournament tickets	1,50,000
Total available fund	7,70,000
Less: Tournament expenses adjusted against fund	7,70,000
Closing Tournament Fund	Nil

Step 4: Conclusion Debit the Income and Expenditure Account with excess tournament expenses of Rs 30,000. The Tournament Fund is fully exhausted, so no fund balance appears in the closing Balance Sheet.

Quick Tip to Solve: Add fund-specific receipts to the opening fund first; only expenditure exceeding that total enters Income and Expenditure.

OR

14. From the following particulars relating to Ganesh Charitable Society, prepare a Receipts and Payments Account for the year ending 31st March, 2019:

Particulars	Amount (₹)
Opening balance of cash	20,000
Subscriptions received:	
2017–18 25,000	
2018–19 1,00,000	
2019–20 15,000	1,40,000
Entrance fees received	45,000
Sale of old sports material	5,000
Rent paid	19,000
Donations received for construction of building	1,00,000
Office expenses paid	23,000

[3 marks]

Solution:

Concept:

- A Receipts and Payments Account summarises actual cash and bank transactions. All receipts and payments are included, whether capital or revenue and whether related to past, current or future years.
- Opening cash appears on the debit side. Closing cash is the balancing figure on the credit side: opening cash plus receipts less payments.

Step 1: Classify and total the cash transactions **Working Notes**

Subscriptions actually received comprise Rs 25,000 for 2017–18, Rs 1,00,000 for 2018–19 and Rs 15,000 for 2019–20. All three belong in this cash summary, giving total subscription receipts of Rs 1,40,000. Entrance fees, sale of old sports material and donations for building construction are also actual receipts, regardless of their eventual income or capital classification.

$$\text{Current-year receipts} = 1,40,000 + 45,000 + 5,000 + 1,00,000 = \text{Rs } 2,90,000.$$

Rent and office expenses are the only payments listed:

$$\text{Payments} = 19,000 + 23,000 = \text{Rs } 42,000.$$

Step 2: Prepare the Receipts and Payments Account Add opening cash of Rs 20,000 to the receipts. The resulting Rs 3,10,000 must equal payments plus the closing balance.

Ganesh Charitable Society

Receipts and Payments Account
for the year ended 31st March, 2019

Dr.			Cr.
Receipts	Rs	Payments	Rs
To Balance b/d (cash)	20,000	By Rent	19,000
To Subscriptions:		By Office expenses	23,000
2017–18	25,000	By Balance c/d (cash)	2,68,000
2018–19	1,00,000		
2019–20	15,000		
To Entrance fees	45,000		
To Sale of old sports material	5,000		
To Building donations	1,00,000		
Total	3,10,000	Total	3,10,000

The building donation is a receipt, not a building payment. No purchase or construction expenditure is given, so none is entered. Closing cash is verified by $20,000 + 2,90,000 - 42,000 =$ Rs $2,68,000$.

Step 3: Conclusion The Receipts and Payments Account totals Rs 3,10,000 on each side, with closing cash of Rs 2,68,000 on 31st March, 2019.

Quick Tip to Solve: Include all three subscription years in receipts; this is a cash account, so no outstanding or advance adjustment is made.

15. Yash and Karan were partners in an interior designer firm. Their fixed capitals were ₹ 6,00,000 and ₹ 4,00,000 respectively. There were credit balances in their current accounts of ₹ 4,00,000 and ₹ 5,00,000 respectively. The firm had a balance of ₹ 1,00,000 in General Reserve. The firm did not have any liability. They admitted Radhika into partnership for 1/4th share in the profits of the firm. The average profits of the firm for the last five years were ₹ 5,00,000. Calculate the value of goodwill of the firm by capitalization of average profits method. The normal rate of return in the business is 10%. [4 marks]

Solution:

Concept:

- Capitalised value of the business is the capital that would earn its average annual profit at the normal rate: $V =$ Average profit $\times$ 100/Normal rate (percent).
- Goodwill is the excess of this capitalised value over actual capital employed: $G = V - C$, where C is the net capital invested in the business.
- With fixed capitals, credit balances in partners' current accounts and accumulated reserves also form part of capital employed. They must be included with the fixed capital balances.

Step 1: Calculate actual capital employed The firm has no outside liability. Its capital employed therefore comprises both partners' fixed capitals, their credit current-account balances, and the

General Reserve. All amounts below are in Rs.

$$\begin{aligned}\text{Fixed capitals} &= 6,00,000 + 4,00,000 = 10,00,000,\\ \text{Current-account credits} &= 4,00,000 + 5,00,000 = 9,00,000,\\ C &= 10,00,000 + 9,00,000 + 1,00,000\\ &= 20,00,000.\end{aligned}$$

The General Reserve represents retained profits belonging to the partners; omitting it, or omitting the current accounts, would understate the capital actually employed.

Step 2: Capitalise the average annual profit The average profit of Rs 5,00,000 is already given for the five-year period. Hence it must not be divided by five again. At the normal return of 10%, the capitalised value is

$$V = 5,00,000 \times \frac{100}{10} = \text{Rs } 50,00,000.$$

This is the amount of capital needed to earn Rs 5,00,000 annually at the normal rate.

Step 3: Deduct the actual capital employed The excess earning capacity is valued by deducting the net capital already invested from the capitalised business value:

$$G = 50,00,000 - 20,00,000 = \text{Rs } 30,00,000.$$

As a check, normal profit on Rs 20,00,000 is Rs 2,00,000. The surplus annual profit is Rs 3,00,000, whose capitalised value at 10% is also Rs 30,00,000. Radhika's one-fourth share does not change the goodwill of the whole firm requested here.

Step 4: Conclusion The value of goodwill of the firm by the capitalisation of average profits method is $\boxed{\text{Rs } 30,00,000}$.

Quick Tip to Solve: Add fixed capitals, credit current accounts and reserves before subtracting capital employed. Use the incoming partner's share only if her share of goodwill is asked for.

OR

15. Samiksha, Ash and Divya were partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. With effect from 1st April, 2019, they agreed to share future profits and losses in the ratio of 2 : 5 : 3. Their Balance Sheet showed a debit balance of ₹ 50,000 in the Profit and Loss Account and a balance of ₹ 40,000 in the Investment Fluctuation Fund. For this purpose, it was agreed that:

(i) Goodwill of the firm be valued at ₹ 3,00,000.

(ii) Investments of book value of ₹ 5,00,000 be valued at ₹ 4,80,000.

Pass the necessary journal entries to record the above transactions in the books of the firm. [4 marks]

Solution:

Concept:

- Accumulated losses and the surplus of a specific reserve after meeting its related loss belong to the old partners in their old profit-sharing ratio.
- On a change in ratio, gaining partners compensate the sacrificing partner for goodwill: each gain or sacrifice equals the difference between the new and old profit shares.
- A fall in investment value is first charged against the Investment Fluctuation Fund. Only its remaining balance is distributed among partners.

Step 1: Prepare working notes for goodwill and the fund **Working Notes.** The old ratio is $5:3:2$ and the new ratio is $2:5:3$.

$$\text{Samiksha's sacrifice} = \frac{5}{10} - \frac{2}{10} = \frac{3}{10},$$
$$\text{Ash's gain} = \frac{5}{10} - \frac{3}{10} = \frac{2}{10},$$
$$\text{Divya's gain} = \frac{3}{10} - \frac{2}{10} = \frac{1}{10}.$$

Ash compensates Samiksha by $3,00,000 \times 2/10 = \text{Rs } 60,000$, and Divya by $3,00,000 \times 1/10 = \text{Rs } 30,000$. Goodwill is adjusted through capital accounts without raising a Goodwill Account. The investments fall by $5,00,000 - 4,80,000 = \text{Rs } 20,000$. After absorbing this fall, the fund's surplus is $40,000 - 20,000 = \text{Rs } 20,000$, distributable as Rs 10,000, Rs 6,000 and Rs 4,000 in the old ratio.

Step 2: Write off the accumulated loss The debit balance of Profit and Loss Account is an old loss, so debit the partners in the old ratio: Rs 25,000, Rs 15,000 and Rs 10,000 respectively. All entries are dated 1st April, 2019.

Journal of the firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2019	Samiksha's Capital A/c Dr.		25,000	
	Ash's Capital A/c Dr.		15,000	
	Divya's Capital A/c Dr.		10,000	
	To Profit and Loss A/c			50,000
	(Being accumulated loss written off in the old ratio of 5:3:2)			

Step 3: Adjust the investments and distribute the surplus fund Debit the fund for the loss in investment value; the Investments Account must be credited to reduce its carrying value to Rs 4,80,000. Distribute only the unused fund, preserving the partners' old entitlements.

Journal of the firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2019	Investment Fluctuation Fund A/c Dr.		20,000	
	To Investments A/c			20,000
	(Being fall in investment value adjusted against the fund)			
1-4-2019	Investment Fluctuation Fund A/c Dr.		20,000	
	To Samiksha's Capital A/c			10,000
	To Ash's Capital A/c			6,000
	To Divya's Capital A/c			4,000
	(Being surplus fund distributed in the old ratio of 5:3:2)			

Step 4: Record the goodwill adjustment Debit Ash and Divya, who gain shares, and credit Samiksha, who sacrifices. The compensation total is Rs 90,000, equal to $3,00,000 \times 3/10$.

Journal of the firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2019	Ash's Capital A/c Dr.		60,000	
	Divya's Capital A/c Dr.		30,000	
	To Samiksha's Capital A/c			90,000
	(Being goodwill adjusted for gains of 2/10 and 1/10 in favour of the sacrificing partner)			

Step 5: Conclusion The entries clear the Rs 50,000 accumulated loss, reduce investments to Rs 4,80,000, distribute the Rs 20,000 surplus fund, and credit Samiksha with Rs 90,000 goodwill compensation from Ash and Divya.

Quick Tip to Solve: Use the old ratio for existing losses and surplus reserves; use only the change in shares for goodwill. Absorb the investment loss before distributing the fund.

16. The capital accounts of Alka and Archana showed credit balances of ₹ 4,00,000 and ₹ 3,00,000 respectively, after taking into account drawings and net profit of ₹ 2,00,000. The drawings of the partners during the year 2018-19 were:

(i) Alka withdrew ₹ 10,000 at the end of each quarter.

(ii) Archana's drawings were: 31st May, 2018 – ₹ 8,000; 1st November, 2018 – ₹ 7,000; 1st February, 2019 – ₹ 5,000.

Calculate interest on partners' capitals @ 10% p.a. and interest on partners' drawings @ 6% p.a. for the year ended 31st March, 2019. [4 marks]

Solution:

Concept:

- Interest on capital is calculated on opening capital. Where closing capital already includes profit and drawings, opening capital equals closing capital plus drawings minus the profit credited.
- When no profit-sharing ratio is given, partners share profit equally. Interest on drawings is calculated for the period from each withdrawal to the financial year-end.
- For an amount P, annual rate $r\%$ and time t months, interest is $P \times r/100 \times t/12$.

Step 1: Recover the opening capitals **Working Notes.** Alka's total drawings are Rs $10,000 \times 4 =$ Rs $40,000$. Archana's total drawings are Rs $8,000 +$ Rs $7,000 +$ Rs $5,000 =$ Rs $20,000$. As no ratio is specified, the net profit of Rs 2,00,000 has been credited equally: Rs 1,00,000 to each partner.

$$\begin{aligned}\text{Alka's opening capital} &= 4,00,000 + 40,000 - 1,00,000\\ &= \text{Rs } 3,40,000,\\ \text{Archana's opening capital} &= 3,00,000 + 20,000 - 1,00,000\\ &= \text{Rs } 2,20,000.\end{aligned}$$

Drawings are added back because they reduced the closing balances; profit is deducted because it increased those balances. No additional capital is stated.

Step 2: Calculate interest on opening capitals Both opening capitals are employed for the full financial year. Applying the given annual rate of 10% gives:

$$\begin{aligned}\text{Alka's interest on capital} &= 3,40,000 \times \frac{10}{100} = \text{Rs } 34,000,\\ \text{Archana's interest on capital} &= 2,20,000 \times \frac{10}{100} = \text{Rs } 22,000.\end{aligned}$$

The closing balances themselves cannot be used as the interest base because they already contain the year's drawings and profit.

Step 3: Calculate interest on Alka's drawings The quarterly withdrawals occur on 30 June, 30 September, 31 December and 31 March. The corresponding periods up to 31 March 2019 are 9, 6, 3 and 0 months. Thus the average period is $(9+6+3+0)/4 = 4.5$ months.

$$\text{Interest on Alka's drawings} = 40,000 \times \frac{6}{100} \times \frac{4.5}{12} = \text{Rs } 900.$$

The last withdrawal earns no drawing interest because it takes place on the closing date itself.

Step 4: Calculate interest on Archana's dated drawings Each withdrawal has a different amount and period, so calculate its interest separately. The withdrawal on 31 May remains outstanding for 10 months, that on 1 November for 5 months, and that on 1 February for 2 months.

Date	Drawings (Rs)	Months	Interest (Rs)
31 May 2018	8,000	10	400
1 November 2018	7,000	5	175
1 February 2019	5,000	2	50
Total	20,000		625

For example, the first interest amount is $8,000 \times 6/100 \times 10/12 =$ Rs 400. Adding the three interest amounts gives $400 + 175 + 50 =$ Rs 625.

Step 5: Conclusion Interest on capital: **Alka Rs 34,000; Archana Rs 22,000**. Interest on drawings: **Alka Rs 900; Archana Rs 625** for the year ended 31 March 2019.

Quick Tip to Solve: First undo drawings and the equal profit credit to recover opening capitals. For equal quarter-end drawings use 4.5 months; for Archana use each actual withdrawal date.

17. Naveen, Kavita and Vishesh were partners in a firm sharing profits and losses in the ratio of 5 : 4 : 1. Their Balance Sheet as at 31st March, 2019 was as follows:

Balance Sheet of Naveen, Kavita and Vishesh as at 31st March, 2019

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capitals:		Plant and Machinery	5,50,000
Naveen 3,00,000		Stock	1,20,000
Kavita 2,00,000		Debtors	1,30,000
Vishesh 1,00,000	6,00,000	Cash	40,000
Profits for the year 2018-19	1,50,000	Advertisement Expenditure	20,000
Sundry Creditors	1,10,000		
	8,60,000		8,60,000

Naveen died on 30th June, 2019. According to the partnership deed, in addition to the deceased partner's capital, the executors are entitled to:

(i) His share in profits on the basis of average profits of the last two years. The profit for the year 2017-18 was Rs 50,000.

(ii) His share in the goodwill of the firm. Goodwill was to be calculated on the basis of two years' purchase of the average profits of the last two years.

Naveen withdrew Rs 60,000 on 1st June, 2019.

Prepare Naveen's Capital Account which is to be rendered to his executor. [4 marks]

Solution:

Concept:

- A deceased partner's capital account is credited with opening capital, undistributed profits, profit up to death and the share of goodwill, and debited with drawings and accumulated losses or deferred expenditure.
- Naveen's old profit share is $5/(5+4+1) = 1/2$. His share of current profit is estimated for the three months from 1 April to 30 June using average annual profits.
- Goodwill equals average annual profit multiplied by years' purchase. The balance due after all adjustments is transferred to the deceased partner's Executor's Account.

Step 1: Determine the average profit and profit up to death **Working Notes.** The last two annual profits are Rs 50,000 and Rs 1,50,000. Their average forms the basis for both the interim profit and goodwill calculations:

$$\text{Average annual profit} = \frac{50,000 + 1,50,000}{2} = \text{Rs } 1,00,000.$$

Naveen died on 30 June 2019, three months after the start of the financial year. Therefore his estimated profit share up to death is:

$$1,00,000 \times \frac{3}{12} \times \frac{5}{10} = \text{Rs } 12,500.$$

Credit this amount to his Capital Account through Profit and Loss Suspense Account. It is separate

from his share of the previous year's profit appearing in the balance sheet.

Step 2: Calculate goodwill and the other capital adjustments Goodwill of the firm is $1,00,000 \times 2 =$ Rs $2,00,000$. Naveen's entitlement is $2,00,000 \times 5/10 =$ Rs $1,00,000$. With no changed ratio stated, Kavita and Vishesh continue in their old relative ratio $4:1$, which is also their gaining ratio. They compensate Naveen in that ratio: Kavita Rs 80,000 and Vishesh Rs 20,000.

The Rs 1,50,000 profit shown separately on the liabilities side has not yet been included in the partners' capital balances. Naveen is credited with $1,50,000 \times 5/10 =$ Rs $75,000$. Advertisement expenditure is written off in the old ratio, so his capital is debited with $20,000 \times 5/10 =$ Rs $10,000$. His withdrawal of Rs 60,000 is also debited. No interest on drawings or capital is specified.

Step 3: Prepare Naveen's Capital Account **Naveen's Capital Account as at 30 June 2019**

Dr. Particulars	Amount (Rs)	Particulars Cr.	Amount (Rs)
To Advertisement Expenditure A/c	10,000	By Balance b/d	3,00,000
To Bank A/c (drawings)	60,000	By Profit and Loss A/c	75,000
To Naveen's Executor's A/c (balance transferred)	4,17,500	By Profit and Loss Suspense A/c	12,500
		By Kavita's Capital A/c (goodwill)	80,000
		By Vishesh's Capital A/c (goodwill)	20,000
Total	4,87,500	Total	4,87,500

The credit total is $3,00,000 + 75,000 + 12,500 + 80,000 + 20,000 =$ Rs $4,87,500$. Deducting advertisement expenditure and drawings, totalling Rs 70,000, gives the balance transferred to the executor. Since Naveen has died, his Capital Account is closed by this transfer rather than carrying a capital balance into the next period.

Step 4: Conclusion The amount payable to Naveen's executor is $\boxed{\text{Rs } 4,17,500}$. Naveen's Capital Account balances at Rs 4,87,500 on each side after transferring this entitlement.

Quick Tip to Solve: Keep the Rs 75,000 share of last year's undistributed profit separate from the Rs 12,500 profit up to death; deduct the advertisement expenditure before transferring the balance.

18. From the given Receipts and Payments Account and additional information of Premier Club for the year ended 31st March, 2019, prepare Income and Expenditure Account for the year ended 31st March, 2019 and Balance Sheet as on that date.

Receipts and Payments Account of Premier Club for the year ended 31st March, 2019

Receipts	Rs	Payments	Rs
To Balance b/d	80,900	By Furniture and Equipment (Purchased on 1.10.2018)	1,00,000
To Donations	39,000	By Salaries	62,000
To Subscriptions: 2017-18 12,000 2018-19 70,000 2019-20 9,000	91,000	By Balance c/d	68,600
To Interest received	19,700		
Total	2,30,600		2,30,600

Additional Information:

(i) On 1st April, 2018, the Club had the following balance of assets and liabilities: Furniture and Equipment ₹ 1,80,000, Subscriptions in arrears ₹ 15,000, and Outstanding Salary ₹ 13,000.

(ii) Charge depreciation on Furniture and Equipment @ 10% p.a.

(iii) The Club had 90 members, each paying an annual subscription of ₹ 1,000. [4 marks]

Solution:

Concept:

- The Income and Expenditure Account records revenue income and expenses relating to the current year on the accrual basis. Capital purchases and subscriptions belonging to other years do not enter this account.
- Annual subscription income equals the number of members multiplied by the annual fee. Uncollected subscriptions are assets, whereas subscriptions received for the next year are liabilities.
- Opening capital fund is opening assets less opening liabilities. Add the current year's surplus to obtain the closing capital fund. General donations, with no specified capital purpose, are treated as revenue income.

Step 1: Calculate subscriptions and salaries for the year **Working Notes**

The subscription due for 2018–19 is $90 \times \text{Rs } 1,000 = \text{Rs } 90,000$. Of this, Rs 70,000 was received, so current-year subscriptions outstanding are Rs 20,000. The opening arrears of Rs 15,000 include Rs 12,000 collected during the year; the remaining old arrears are Rs 3,000. Thus the closing subscription asset is

$$\text{Rs } (20,000 + 3,000) = \text{Rs } 23,000.$$

The Rs 9,000 collected for 2019–20 is shown as subscriptions received in advance. The Rs 12,000 collected for 2017–18 is not current income. Salaries paid include the opening outstanding amount of

Rs 13,000; no closing salary payable is given. Therefore,

$$\text{Salary expense} = \text{Rs}\ (62,000 - 13,000) = \text{Rs}\ 49,000.$$

Step 2: Work out depreciation and the opening capital fund Existing furniture and equipment are depreciated for a full year. The addition purchased on 1st October, 2018 is depreciated for six months, up to 31st March, 2019:

$$\begin{aligned}\text{Depreciation} &= 1,80,000 \times 10\% + 1,00,000 \times 10\% \times \frac{6}{12} \\ &= 18,000 + 5,000 = \text{Rs}\ 23,000. \\ \text{Closing carrying value} &= 1,80,000 + 1,00,000 - 23,000 \\ &= \text{Rs}\ 2,57,000.\end{aligned}$$

Opening assets comprise cash/bank Rs 80,900, furniture and equipment Rs 1,80,000 and subscriptions receivable Rs 15,000. Deducting outstanding salaries gives

$$\text{Opening capital fund} = 80,900 + 1,80,000 + 15,000 - 13,000 = \text{Rs}\ 2,62,900.$$

Step 3: Prepare the Income and Expenditure Account **Premier Club**
Income and Expenditure Account for the year ended 31st March, 2019

Dr. Expenditure	Rs	Cr. Income	Rs
To Salaries	49,000	By Donations	39,000
To Depreciation	23,000	By Subscriptions	90,000
To Surplus (capital fund)	76,700	By Interest	19,700
Total	**1,48,700**	**Total**	**1,48,700**

The furniture purchase is a capital payment, so only its depreciation is charged here. Donations are unrestricted in the question and are included as income; no adjustment to interest received is specified.

Step 4: Prepare the closing Balance Sheet **Premier Club**
Balance Sheet as at 31st March, 2019

Liabilities	Rs	Assets	Rs
Capital fund:		Furniture and equipment:	
Opening balance	2,62,900	Opening value	1,80,000
Add: Surplus	76,700	Add: Purchases	1,00,000
Closing capital fund	3,39,600	Less: Depreciation	(23,000)
Subscriptions in advance	9,000	Net furniture and equipment	2,57,000
		Subscriptions outstanding	23,000
		Cash/Bank balance	68,600
Total	**3,48,600**	**Total**	**3,48,600**

Only the closing capital fund and the net furniture value are included in the respective totals; their preceding rows show the calculation. Opening salary outstanding has been settled through the year's payments and is not carried forward.

Step 5: Conclusion Premier Club earns a surplus of $\boxed{\text{Rs } 76,700}$. Its closing capital fund is Rs 3,39,600, and both sides of the Balance Sheet total $\boxed{\text{Rs } 3,48,600}$.

Quick Tip to Solve: Start with 90 members times Rs 1,000 for subscription income, then keep the Rs 3,000 old arrears and Rs 20,000 current arrears together as the closing asset. Depreciate the October purchase for six months only.

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19. Simar, Raja and Rita were partners in a firm sharing profits and losses in the ratio of 2 : 2 : 1. The firm was dissolved on 31st March, 2019. After the transfer of assets (other than cash) and external liabilities to the Realization Account, the following transactions took place:

(i) A debtor whose debt of ₹ 90,000 had been written off as bad, paid ₹ 88,000 in full settlement.

(ii) Creditors to whom ₹ 1,21,000 were due to be paid, accepted stock at ₹ 71,000 and the balance was paid to them by a cheque.

(iii) Raja had given a loan to the firm of ₹ 18,000. He was paid ₹ 17,000 in full settlement of his loan.

(iv) Investments were ₹ 53,000 out of which investments worth ₹ 43,000 were taken over by Simar at ₹ 52,000 and the balance of the investments were sold for ₹ 12,000.

(v) Expenses on dissolution amounted to ₹ 19,000 and the same were paid by the firm.

(vi) Profit on dissolution amounted to ₹ 30,000.

Pass the necessary journal entries for the above transactions in the books of the firm. [6 marks]

Solution:

Concept:

- After assets and external liabilities have been transferred, asset realisations are credited to Realisation Account and liability payments and dissolution expenses are debited to it. Recovery of an already written-off debt is an unrecorded asset realisation.
- A partner's loan is settled through the partner's Loan Account, since it is not an external liability transferred to Realisation. Any concession received in its settlement is a realisation gain.
- When a partner takes over an asset, debit the partner's Capital Account at the agreed value. Distribute the final realisation profit among the partners in their profit-sharing ratio, here $2:2:1$.

Step 1: Record recovery of the written-off debt and settlement of creditors The debtor's Rs 90,000 debt is no longer in the books. Record only the Rs 88,000 actually recovered, as a credit to Realisation; the unrecovered Rs 2,000 is not a new bad debt. For creditors, the stock and liability were already transferred to Realisation. No separate entry is needed for stock handed directly to creditors. The cash balance payable is $1,21,000 - 71,000 = \text{Rs } 50,000$.

Journal of Simar, Raja and Rita (31st March, 2019)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.3.19	Bank A/c Dr. To Realisation A/c (Being recovery of a debt previously written off)		88,000	 88,000
31.3.19	Realisation A/c Dr. To Bank A/c (Being creditors settled by stock of Rs 71,000 and cheque for the balance)		50,000	 50,000

Step 2: Settle Raja's loan and record the investments taken over Raja's Loan Account must be cleared at its full book balance of Rs 18,000. Bank is credited with Rs 17,000 actually paid, and the Rs 1,000 concession is credited to Realisation. Simar's takeover is entered at the agreed Rs 52,000, even though the investments taken had a book value of Rs 43,000; their book value has already been transferred.

Journal of Simar, Raja and Rita (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.3.19	Raja's Loan A/c Dr. To Bank A/c To Realisation A/c (Being Raja's loan settled at a concession of Rs 1,000)		18,000	 17,000 1,000
31.3.19	Simar's Capital A/c Dr. To Realisation A/c (Being investments taken over by Simar at the agreed value)		52,000	 52,000

Step 3: Record the remaining investments and dissolution expenses The remaining investments have book value $53,000 - 43,000 =$ Rs $10,000$. Their sale proceeds of Rs 12,000 are credited in full to Realisation; recording only the Rs 2,000 gain would omit the proceeds because the book value has already been transferred. The firm pays dissolution expenses of Rs 19,000, which are debited to Realisation.

Journal of Simar, Raja and Rita (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.3.19	Bank A/c Dr. To Realisation A/c (Being remaining investments sold)		12,000	 12,000
31.3.19	Realisation A/c Dr. To Bank A/c (Being dissolution expenses paid by the firm)		19,000	 19,000

Step 4: Transfer the profit on dissolution to partners' capital accounts **Working Note**

The stated final profit of Rs 30,000 is divided in the ratio $2:2:1$:

$$\text{Simar's share} = 30,000 \times \frac{2}{5} = \text{Rs } 12,000,$$
$$\text{Raja's share} = 30,000 \times \frac{2}{5} = \text{Rs } 12,000,$$
$$\text{Rita's share} = 30,000 \times \frac{1}{5} = \text{Rs } 6,000.$$

Realisation is debited to close its profit balance, while each partner's Capital Account is credited with that partner's share.

Journal of Simar, Raja and Rita (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.3.19	Realisation A/c Dr.		30,000	
	To Simar's Capital A/c			12,000
	To Raja's Capital A/c			12,000
	To Rita's Capital A/c			6,000
	(Being realisation profit transferred in the ratio 2:2:1)			

Step 5: Conclusion The entries record Rs 88,000 recovered, Rs 50,000 paid to creditors, Raja's Rs 18,000 loan settled for Rs 17,000, investments taken over for Rs 52,000 and sold for Rs 12,000, and expenses of Rs 19,000. Realisation profit is credited to Simar, Raja and Rita in amounts of $\boxed{\text{Rs } 12,000,\ \text{Rs } 12,000,\ \text{Rs } 6,000}$, respectively.

Quick Tip to Solve: When assets and liabilities have already been transferred, do not repeat their book values. Record only the cash payment for creditors accepting stock, but clear Raja's separate Loan Account at its full Rs 18,000 balance.

20. (i) Kati Ltd. issued 8,000, 9% debentures of ₹ 100 each at a discount of 10%. The full amount was payable on application. Applications were received for 9,000 debentures and allotment was made on pro-rata basis. Pass the necessary journal entries for the above transactions in the books of Kati Ltd.
(ii) Pivot Ltd. issued 40,000, 11% debentures of ₹ 100 each on 1st April, 2015. Half of the debentures were due for redemption on 31st March, 2019. The company decided to transfer the minimum required amount to Debenture Redemption Reserve on 31st March, 2018 and invested the necessary amount in Debenture Redemption Investments on 30th April, 2018. Pass the necessary journal entries for Redemption of Debentures. [6 marks]

Solution:

Concept:

- Debentures are credited at their face value. A discount on issue is debited separately, while the application money received equals the number applied for multiplied by the issue price.
- Under pro-rata allotment, all applicants receive debentures in the same proportion. When the entire issue price was collected on application, the excess application money must be refunded.
- For the dates in this question, the minimum Debenture Redemption Reserve (DRR) is 25% of

the outstanding nominal debentures. Debenture Redemption Investments (DRI) are 15% of the nominal amount becoming due during the following financial year.

Step 1: (i) Calculate the application money and refund for Kati Ltd. **Working Notes:** The issue price per debenture is $100 - 10 =$ Rs 90. Applications for 9,000 debentures therefore bring in $9,000 \times 90 =$ Rs $8,10,000$. The allotment ratio is $8,000 : 9,000 = 8 : 9$, so every nine debentures applied for obtain eight debentures. Money required for the actual allotment is $8,000 \times 90 =$ Rs $7,20,000$. Thus the excess refundable is $8,10,000 - 7,20,000 =$ Rs $90,000$. The discount on the 8,000 debentures issued is $8,000 \times 10 =$ Rs $80,000$.

Step 2: (i) Record the issue in Kati Ltd.'s journal **Journal of Kati Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Debenture Application and Allotment A/c (Being application money received for 9,000 debentures at Rs 90 each)		8,10,000	8,10,000
	Debenture Application and Allotment A/c Dr. Discount on Issue of Debentures A/c Dr. To 9% Debentures A/c (Being 8,000 debentures of Rs 100 each allotted pro-rata at a discount of 10%)		7,20,000 80,000	8,00,000
	Debenture Application and Allotment A/c Dr. To Bank A/c (Being excess application money refunded)		90,000	90,000

The application and allotment account closes: Rs 8,10,000 received is adjusted by Rs 7,20,000 towards allotment and Rs 90,000 towards refunds.

Step 3: (ii) Calculate Pivot Ltd.'s reserve and investment **Working Notes:** The outstanding nominal debentures before redemption are $40,000 \times 100 =$ Rs $40,00,000$. Half, namely $20,000 \times 100 =$ Rs $20,00,000$, become redeemable on 31st March, 2019. Accordingly,

$$\text{Minimum DRR} = 40,00,000 \times 25\% = \text{Rs } 10,00,000,$$
$$\text{Required DRI} = 20,00,000 \times 15\% = \text{Rs } 3,00,000.$$

The reserve is an appropriation of profits; the investment is an asset purchased with cash. The two amounts consequently have different bases and are recorded separately.

Step 4: (ii) Record the reserve and investment for Pivot Ltd. **Journal of Pivot Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	Surplus in Statement of Profit and Loss A/c Dr. To Debenture Redemption Reserve A/c (Being minimum DRR created out of profits)		10,00,000	10,00,000
30-4-2018	Debenture Redemption Investments A/c Dr. To Bank A/c (Being 15% of debentures due for redemption invested)		3,00,000	3,00,000

Step 5: (ii) Record redemption of half the debentures **Journal of Pivot Ltd. (continued)**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2019	Bank A/c Dr. To Debenture Redemption Investments A/c (Being investments realised at book value)		3,00,000	 3,00,000
31-3-2019	11% Debentures A/c Dr. To Debentureholders A/c (Being half the debentures due for redemption at par)		20,00,000	 20,00,000
31-3-2019	Debentureholders A/c Dr. To Bank A/c (Being amount due paid to debentureholders)		20,00,000	 20,00,000

No investment sale price is specified, so realisation is recorded at book value. No interest entry is required by the question. Since the other half of the debentures remains outstanding, the DRR is retained; its entire balance is not transferred to General Reserve at this stage.

Step 6: Conclusion Kati Ltd. issues nominal debentures of Rs 8,00,000, records discount of Rs 80,000 and refunds Rs 90,000. Pivot Ltd. creates DRR of Rs 10,00,000, invests Rs 3,00,000 and redeems debentures of Rs 20,00,000 at par.

Quick Tip to Solve: For Pivot, apply 25% to the outstanding nominal issue for DRR, but 15% only to the half becoming due for DRI. For Kati, calculate the refund at Rs 90 per excess application, not Rs 100.

OR

20. (i) Rama Ltd. took over the following assets and liabilities of Krishna Ltd. on 1st April, 2019: Land and Building ₹ 50,00,000; Furniture ₹ 10,00,000; Stock ₹ 5,00,000; Creditors ₹ 7,00,000. The purchase consideration of ₹ 60,00,000 was paid by issuing 12% debentures of ₹ 100 each at a premium of 20%. Pass the necessary journal entries for the above in the books of Rama Ltd.

(ii) On 1st April, 2018, Sakshi Ltd. issued 1,000, 11% Debentures of ₹ 100 each at a discount of 6%, redeemable at a premium of 5% after three years. Pass the necessary journal entries for the issue of debentures in the books of Sakshi Ltd.

(iii) On 1st April, 2016, Canara Bank issued 5,000, 9% debentures of ₹ 100 each at a premium of 6%, redeemable on 31st March, 2019, at a premium of 10%. The issue was fully subscribed. Pass the necessary journal entries for redemption of debentures in the books of Canara Bank. [6 marks]

Solution:

Concept:

- When a business is purchased, the excess of purchase consideration over the net assets acquired is goodwill. Debentures issued to the vendor settle the purchase consideration at their issue price, including any premium.
- Loss on Issue of Debentures comprises the discount on issue plus the premium payable on redemption. The debenture account is credited with the nominal value, and redemption premium is credited to a separate liability account.
- A banking company is exempt from creating a Debenture Redemption Reserve and the related Debenture Redemption Investments. On redemption, the nominal debentures and redemption premium are transferred to Debentureholders Account and the total is paid.

Step 1: (i) Calculate goodwill and debentures issued by Rama Ltd. **Working Notes:** Assets taken over total $50,00,000 + 10,00,000 + 5,00,000 =$ Rs $65,00,000$. After deducting creditors of Rs 7,00,000, the net assets are Rs 58,00,000. The consideration of Rs 60,00,000 exceeds this amount by Rs 2,00,000, which is goodwill. Each Rs 100 debenture is issued at $100 + 20 =$ Rs 120, so

$$\text{Number of debentures} = \frac{60,00,000}{120} = 50,000.$$

Nominal debenture capital is $50,000 \times 100 =$ Rs $50,00,000$, and Securities Premium is $50,000 \times 20 =$ Rs $10,00,000$.

Step 2: (i) Record the takeover and payment in Rama Ltd.'s journal **Journal of Rama Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2019	Land and Building A/c Dr.		50,00,000	
	Furniture A/c Dr.		10,00,000	
	Stock A/c Dr.		5,00,000	
	Goodwill A/c Dr.		2,00,000	
	To Creditors A/c			7,00,000
	To Krishna Ltd. A/c			60,00,000
	(Being assets and liabilities taken over for Rs 60,00,000, with the excess over net assets treated as goodwill)			
1-4-2019	Krishna Ltd. A/c Dr.		60,00,000	
	To 12% Debentures A/c			50,00,000
	To Securities Premium Reserve A/c			10,00,000
	(Being purchase consideration discharged by issuing 50,000 debentures of Rs 100 each at 20% premium)			

The takeover entry totals Rs 67,00,000 on each side. The second entry clears the vendor's account without any cash payment.

Step 3: (ii) Calculate and record Sakshi Ltd.'s issue **Working Notes:** The nominal issue is $1,000 \times 100 =$ Rs $1,00,000$. Discount is $1,00,000 \times 6\% =$ Rs $6,000$, and cash received is Rs 94,000. Re-

demption premium is $1,00,000 \times 5\% = \text{Rs } 5,000$. Thus total Loss on Issue of Debentures is $6,000 + 5,000 = \text{Rs } 11,000$; the premium liability is recognised at the issue date even though payment occurs after three years.

Journal of Sakshi Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2018	Bank A/c Dr.		94,000	
	Loss on Issue of Debentures A/c Dr.		11,000	
	To 11% Debentures A/c			1,00,000
	To Premium on Redemption of Debentures A/c			5,000
	(Being 1,000 debentures of Rs 100 each issued at 6% discount, redeemable at 5% premium after three years)			

The debit and credit totals are both Rs 1,05,000. This combined issue entry records the cash receipt and the allotment together.

Step 4: (iii) Calculate Canara Bank's redemption liability **Working Notes:** Nominal debentures are $5,000 \times 100 = \text{Rs } 5,00,000$. Redemption premium is $5,00,000 \times 10\% = \text{Rs } 50,000$, giving a total payment of Rs 5,50,000. The 6% premium collected at issue does not reduce the amount payable to debentureholders on redemption. Canara Bank is a banking company, so no DRR or DRI entry is required. The question asks only for redemption entries; the liability for redemption premium would already have been recognised when the debentures were issued.

Step 5: (iii) Record Canara Bank's redemption and payment **Journal of Canara Bank**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2019	9% Debentures A/c Dr.		5,00,000	
	Premium on Redemption of Debentures A/c Dr.		50,000	
	To Debentureholders A/c			5,50,000
	(Being debentures due for redemption at 10% premium)			
31-3-2019	Debentureholders A/c Dr.		5,50,000	
	To Bank A/c			5,50,000
	(Being amount due on redemption paid in full)			

Step 6: Conclusion Rama Ltd. records goodwill of Rs 2,00,000 and issues 50,000 debentures at Rs 120 each. Sakshi Ltd. receives Rs 94,000 and records a total issue loss of Rs 11,000. Canara Bank redeems its debentures by paying Rs 5,50,000, including redemption premium of Rs 50,000.

Quick Tip to Solve: Divide Rama's purchase consideration by Rs 120, not the Rs 100 face value. Add Sakshi's issue discount and redemption premium to find the loss; for Canara, use the 10% redemption premium when calculating payment.

21. V.D. Ltd. invited applications for issuing 2,00,000 equity shares of ₹ 10 each at a premium of ₹ 6 per share. The amount per share was payable as follows: On application – ₹ 3 (including premium ₹ 1); On allotment – ₹ 7 (including premium ₹ 5); On first and final call – Balance amount.

Applications were received for 2,50,000 shares. Applicants for 10,000 shares were sent letters of regret and application money returned to them. Shares were allotted to the remaining applicants on a pro-rata basis. Money overpaid on application was adjusted towards the sums due on allotment.

The company received all the money due on allotment except from Agam, who was allotted 1,000 shares. Her shares were forfeited immediately after allotment. Afterwards, the first and final call was made. Seema, the holder of 2,000 shares, did not pay the first and final call on her shares. Her shares were also forfeited. 50% of the forfeited shares, each of Agam and Seema, were reissued as fully paid-up @ ₹ 16 per share.

Pass the necessary journal entries to record the above transactions in the books of V.D. Ltd. [8 marks]

Solution:

Concept:

- Excess application money on pro-rata allotment is transferred to Share Allotment. Capital and securities premium are credited separately when due.
- On forfeiture, debit only called-up capital and any premium due but not received; credit Share Forfeiture with capital actually received. Adjust excess application money against allotment capital first.
- On reissue, any amount above face value is securities premium. Transfer the forfeiture profit relating only to reissued shares to Capital Reserve.

Step 1: Calculate the pro-rata adjustment and Agam's default **Working Notes**

After rejecting 10,000 applications, 2,40,000 applications receive 2,00,000 shares. Thus applications to allotments are $6:5$. Total application receipts are $2,50,000 \times 3 =$ Rs $7,50,000$; the refund is Rs 30,000. Application money retained for allotted shares comprises capital Rs 4,00,000 and premium Rs 2,00,000. Excess application money is

$$(2,40,000 - 2,00,000) \times 3 = \text{Rs } 1,20,000.$$

Agam applied for $1,000 \times 6/5 = 1,200$ shares and paid Rs 3,600. Of this, Rs 3,000 is application money for her allotment and Rs 600 is adjusted against allotment. Her unpaid allotment is $1,000 \times 7 - 600 =$ Rs $6,400$. Adjusting the excess against the capital component of allotment first, capital received is $2,000 + 600 =$ Rs $2,600$; allotment premium Rs 5,000 is wholly unpaid. Called-up capital when her shares are forfeited is only $1,000 \times 4 =$ Rs $4,000$.

Step 2: Record application and allotment Journal of V.D. Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Share Application A/c (Being application money received on 2,50,000 shares)		7,50,000	 7,50,000

	Share Application A/c Dr.
	  To Share Capital A/c
	  To Securities Premium A/c
	  To Share Allotment A/c
	  To Bank A/c
	(Being application money transferred, excess adjusted and rejected applications refunded)
			7,50,000	
				4,00,000
				2,00,000
				1,20,000
				30,000

	Share Allotment A/c Dr.
	  To Share Capital A/c
	  To Securities Premium A/c
	(Being allotment due on 2,00,000 shares)
			14,00,000	
				4,00,000
				10,00,000

	Bank A/c Dr. To Share Allotment A/c (Being allotment received after adjustment of Rs 1,20,000 and Agam's default of Rs 6,400)		12,73,600	 12,73,600

Step 3: Forfeit Agam's shares and record the call The remaining shares subject to the call are $2,00,000 - 1,000 = 1,99,000$. The first and final call is $16 - 3 - 7 =$ Rs 6 per share, all towards capital. Therefore the call due is Rs 11,94,000. Seema defaults on $2,000 \times 6 =$ Rs $12,000$, so cash received is Rs 11,82,000.

Journal of V.D. Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)

	Share Capital A/c Dr.
	Securities Premium A/c Dr.
	  To Share Allotment A/c
	  To Share Forfeiture A/c
	(Being Agam's 1,000 shares forfeited for non-payment of allotment)
			4,000
			5,000
				
				6,400
				2,600

	Share First and Final Call A/c Dr. To Share Capital A/c (Being call of Rs 6 per share due on 1,99,000 shares)		11,94,000	 11,94,000
	Bank A/c Dr. To Share First and Final Call A/c (Being call received except Rs 12,000 on Seema's shares)		11,82,000	 11,82,000

	Share Capital A/c Dr.
	  To Share First and Final Call A/c
	  To Share Forfeiture A/c
	(Being Seema's 2,000 fully called shares forfeited; capital received was Rs 4 per share)
			20,000	
				12,000
				8,000

Step 4: Record reissue and transfer the realised forfeiture profit Half of each holding is reissued: 500 shares of Agam and 1,000 of Seema, totalling 1,500 shares. At Rs 16 each, the bank receives Rs

24,000, comprising face value Rs 15,000 and fresh premium Rs 9,000. There is no reissue discount. The related forfeiture profit is

$$2,600 \times \frac{500}{1,000} + 8,000 \times \frac{1,000}{2,000} = 1,300 + 4,000 = \text{Rs } 5,300.$$

Journal of V.D. Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Share Capital A/c To Securities Premium A/c (Being 1,500 forfeited shares reissued fully paid at Rs 16 each)		24,000	 15,000 9,000
	Share Forfeiture A/c Dr. To Capital Reserve A/c (Being forfeiture profit on the reissued shares transferred to Capital Reserve)		5,300	 5,300

Step 5: Conclusion The required entries record both forfeitures and the reissue of 1,500 shares. Capital Reserve is credited with $\boxed{\text{Rs } 5,300}$; the remaining Rs 5,300 stays in Share Forfeiture for the unreissued shares.

Quick Tip to Solve: For Agam, call only Rs 4 capital before forfeiture; exclude her 1,000 shares from the Rs 6 call. Transfer only half of each holder's forfeiture balance after reissue.

OR

21. Konark Ltd. invited applications for issuing 3,00,000 shares of ₹ 10 each. The amount per share was payable as follows: ₹ 3 on application, ₹ 3 on allotment, and ₹ 4 on first and final call.

The company received applications for 4,00,000 shares. Allotment was done as follows:

(i) Applicants of 2,40,000 shares were allotted 2,00,000 shares.

(ii) Applicants of 1,20,000 shares were allotted 80,000 shares.

(iii) Remaining applicants were allotted 20,000 shares.

Money overpaid on applications was adjusted towards sums due on allotment. Divij, a shareholder, belonging to group (ii), who had applied for 6,000 shares, failed to pay allotment and call money. Faisal, another shareholder, who was allotted 10,000 shares, paid the call money along with allotment. Faisal belonged to group (i).

Divij's shares were forfeited after the first and final call. Half of the forfeited shares were reissued @ ₹ 10 per share fully paid. Pass the necessary journal entries to record the above transactions in the books of the company. [8 marks]

Solution:

Concept:

- Pro-rata allotment uses the ratio specific to each applicant group. Excess application money is adjusted against that shareholder's allotment dues.

- Calls received before they become due are credited to Calls in Advance and adjusted against the call when it is made.
- On forfeiture, debit called-up share capital and credit unpaid instalments and capital received. On reissue at par, transfer only the related forfeiture amount to Capital Reserve.

Step 1: Calculate excess application money for each group **Working Notes**

Application receipts are $4,00,000 \times 3 =$ Rs $12,00,000$. Application capital on the 3,00,000 allotted shares is Rs 9,00,000. The excess of Rs 3,00,000 is adjusted towards allotment as follows:

Group	Applied	Allotted	Excess (Rs)
(i)	2,40,000	2,00,000	1,20,000
(ii)	1,20,000	80,000	1,20,000
(iii)	40,000	20,000	60,000
Total	4,00,000	3,00,000	3,00,000

Each group's excess equals the difference between applications and allotments multiplied by Rs 3. No application money is refunded, since every group receives an allotment and its excess is fully adjustable.

Step 2: Determine Divij's arrears and Faisal's advance Divij belongs to group (ii), with allotment ratio $80,000/1,20,000 = 2/3$. He receives $6,000 \times 2/3 = 4,000$ shares and has paid application money Rs 18,000. Excess application money is $(6,000 - 4,000) \times 3 =$ Rs $6,000$. His allotment due is Rs 12,000, leaving arrears Rs 6,000 after adjustment. His call arrears are $4,000 \times 4 =$ Rs $16,000$. Thus total arrears are Rs 22,000 and capital already received is Rs 18,000.

Faisal's 10,000 allotted shares in group (i) correspond to $10,000 \times 6/5 = 12,000$ applications. His excess application money is Rs 6,000, making net allotment payable Rs 24,000. He also pays the call in advance: $10,000 \times 4 =$ Rs $40,000$. The total bank receipt at allotment is therefore

$$9,00,000 - 3,00,000 - 6,000 + 40,000 = \text{Rs } 6,34,000.$$

The advance is a liability until the call becomes due; it is not credited to capital on receipt.

Step 3: Record application and allotment transactions Journal of Konark Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Share Application A/c (Being application money received on 4,00,000 shares)		12,00,000	 12,00,000

	Share Application A/c Dr.
	  To Share Capital A/c
	  To Share Allotment A/c
	(Being application money transferred to capital and excess adjusted towards allotment)
			12,00,000	
				9,00,000
				3,00,000

	Share Allotment A/c Dr. To Share Capital A/c (Being allotment of Rs 3 per share due on 3,00,000 shares)		9,00,000	 9,00,000

	Bank A/c Dr.
	  To Share Allotment A/c
	  To Calls in Advance A/c
	(Being net allotment received except Divij's arrears and Faisal's call received in advance)
			6,34,000	
				5,94,000
				40,000

Step 4: Record the call and forfeit Divij's shares The call due on all allotted shares is $3,00,000 \times 4 =$ Rs $12,00,000$. After adjusting Faisal's advance Rs 40,000 and Divij's default Rs 16,000, cash received at the call stage is Rs 11,44,000. Divij's shares are forfeited only after this call, so the full Rs 10 per share is debited to Share Capital.

Journal of Konark Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First and Final Call A/c Dr. To Share Capital A/c (Being first and final call of Rs 4 per share due)		12,00,000	 12,00,000
	Bank A/c Dr. Calls in Advance A/c Dr. To Share First and Final Call A/c (Being call collected and advance adjusted, except Divij's unpaid call of Rs 16,000)		11,44,000 40,000	 11,84,000

	Share Capital A/c Dr.
	  To Share Allotment A/c
	  To Share First and Final Call A/c
	  To Share Forfeiture A/c
	(Being Divij's 4,000 shares forfeited for non-payment of allotment and call)
			40,000	
				6,000
				16,000
				18,000

Step 5: Record reissue and the related capital profit Half of Divij's 4,000 forfeited shares means 2,000 shares reissued at par. Bank receives $2,000 \times 10 =$ Rs $20,000$. Since there is no reissue discount, the capital profit is the proportionate forfeiture credit: $18,000 \times 2,000/4,000 =$ Rs $9,000$.

Journal of Konark Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Share Capital A/c (Being 2,000 forfeited shares reissued at Rs 10 each fully paid)		20,000	20,000
	Share Forfeiture A/c Dr. To Capital Reserve A/c (Being forfeiture profit relating to 2,000 reissued shares transferred to Capital Reserve)		9,000	9,000

Step 6: Conclusion Divij's 4,000 shares are forfeited and 2,000 are reissued at par. Capital Reserve is $\boxed{\text{Rs } 9,000}$, and Rs 9,000 remains in Share Forfeiture for the 2,000 unreissued shares.

Quick Tip to Solve: Use group (ii)'s 2:3 allotment ratio for Divij. Subtract his Rs 6,000 excess application from allotment arrears, and keep Faisal's Rs 40,000 advance separate until the call.

22. Madhuri and Arsh were partners in a firm sharing profits and losses in the ratio of 3 : 1. Their Balance Sheet as at 31st March, 2019, was as follows:

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capitals: Madhuri 3,00,000 Arsh 2,00,000	5,00,000	Machinery	4,70,000
Workmen's Compensation Fund	60,000	Investments	1,10,000
Creditors	1,90,000	Debtors 1,20,000 Less: Provision for doubtful debts 10,000	1,10,000
Employees' Provident Fund	1,10,000	Stock	1,40,000
		Cash	30,000
Total	8,60,000	Total	8,60,000

On 1st April, 2019, they admitted Jyoti into partnership for 1/4th share in the profits of the firm. Jyoti brought proportionate capital and ₹ 40,000 as her share of goodwill premium. The following terms were agreed upon:

(i) Provision for doubtful debts was to be maintained at 10% on debtors.

(ii) Stock was undervalued by ₹ 10,000.

(iii) An old customer whose account was written off as bad, paid ₹ 15,000.

(iv) 20% of the investments were taken over by Arsh at book value.

(v) Claim on account of workmen's compensation amounted to ₹ 70,000.

(vi) Creditors included a sum of ₹ 27,000 which was not likely to be claimed.

Prepare Revaluation Account, Partners' Capital Accounts, and the Balance Sheet of the reconstituted firm. [8 marks]

Solution:

Concept:

- Revaluation gains and losses belong to the old partners in their old profit-sharing ratio, here Madhuri : Arsh = $3:1$.
- The incoming partner's goodwill premium is credited to sacrificing partners. With no different sacrifice specified, the old partners sacrifice in their old ratio.
- Proportionate incoming capital is based on the adjusted capitals of the old partners and their combined share after admission.

Step 1: Prepare the working notes **Working Notes** The new ratio is $9:3:4$: Madhuri keeps $3/4 \times 3/4 = 9/16$, Arsh keeps $1/4 \times 3/4 = 3/16$, and Jyoti gets $4/16$. Sacrifice is $3:1$, so goodwill premium of Rs 40,000 is credited Rs 30,000 to Madhuri and Rs 10,000 to Arsh.

Required provision is $1,20,000 \times 10\% =$ Rs $12,000$; additional provision is Rs 2,000. Stock increases by Rs 10,000. The recovered bad debt adds Rs 15,000 to cash and revaluation profit. Arsh takes investments of $1,10,000 \times 20\% =$ Rs $22,000$, debited to his capital without a revaluation gain or loss.

The compensation claim exceeds the fund by $70,000 - 60,000 =$ Rs $10,000$, charged to revaluation. The entire Rs 70,000 remains a liability. Creditors decrease by Rs 27,000 to Rs 1,63,000; Employees' Provident Fund is an outside liability and is retained.

Step 2: Prepare the Revaluation Account **Revaluation Account**

Dr.		Cr.	
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Provision for doubtful debts	2,000	By Stock	10,000
To Workmen's compensation claim	10,000	By Cash (bad debts recovered)	15,000
To Madhuri's Capital (profit)	30,000	By Creditors	27,000
To Arsh's Capital (profit)	10,000		
Total	52,000	Total	52,000

Revaluation profit is Rs 40,000, shared Rs 30,000 and Rs 10,000 in the ratio $3:1$.

Step 3: Calculate Jyoti's proportionate capital Adjusted capitals of the old partners, after goodwill and the investment withdrawal, are:

$$\text{Madhuri} = 3,00,000 + 30,000 + 30,000 = \text{Rs } 3,60,000,$$
$$\text{Arsh} = 2,00,000 + 10,000 + 10,000 - 22,000 = \text{Rs } 1,98,000.$$

Their total Rs 5,58,000 represents $3/4$ of total capital. Hence total capital is $5,58,000 \times 4/3 =$ Rs $7,44,000$, and Jyoti brings $7,44,000 \times 1/4 =$ Rs $1,86,000$ as capital, in addition to her goodwill premium.

Step 4: Prepare the Partners' Capital Accounts **Partners' Capital Accounts (amounts in Rs)**

Dr.				Cr.			
Particulars	Madhuri	Arsh	Jyoti	Particulars	Madhuri	Arsh	Jyoti
To Investments	–	22,000	–	By Balance b/d	3,00,000	2,00,000	–
To Balance c/d	3,60,000	1,98,000	1,86,000	By Revaluation	30,000	10,000	–
				By Premium for goodwill	30,000	10,000	–
				By Cash	–	–	1,86,000
Total	3,60,000	2,20,000	1,86,000	Total	3,60,000	2,20,000	1,86,000

Step 5: Prepare the reconstituted balance sheet Cash becomes $30,000+15,000+40,000+1,86,000 =$ Rs $2,71,000$. Investments are Rs 88,000, and net debtors are $1,20,000 - 12,000 =$ Rs $1,08,000$.

Balance Sheet of Madhuri, Arsh and Jyoti as at 1st April, 2019

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capitals:		Machinery	4,70,000
Madhuri	3,60,000	Investments	88,000
Arsh	1,98,000	Debtors: Rs 1,20,000	
Jyoti	1,86,000	Less: Provision Rs 12,000	1,08,000
Total capital	7,44,000	Stock	1,50,000
Workmen's compensation claim	70,000	Cash	2,71,000
Creditors	1,63,000		
Employees' Provident Fund	1,10,000		
Total	10,87,000	Total	10,87,000

Step 6: Conclusion Revaluation profit is **Rs 40,000**; closing capitals are Madhuri **Rs 3,60,000**, Arsh **Rs 1,98,000** and Jyoti **Rs 1,86,000**. The reconstituted Balance Sheet totals **Rs 10,87,000**.

Quick Tip to Solve: Calculate Jyoti's capital only after adjusting old capitals for goodwill, revaluation and Arsh's investment withdrawal.

OR

22. Anita, Gaurav and Sonu were partners in a firm sharing profits and losses in proportion to their capitals. Their Balance Sheet as at 31st March, 2019 was as follows:

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capitals: Anita 2,00,000 Gaurav 2,00,000 Sonu 1,00,000	5,00,000	Land and Building	5,00,000
Investment Fluctuation Fund	40,000	Investments	1,20,000
General Reserve	30,000	Debtors 1,50,000 Less: Provision for doubtful debts 10,000	1,40,000
Creditors	4,60,000	Stock	1,00,000
		Cash at bank	1,70,000
Total	10,30,000	Total	10,30,000

On the above date, Anita retired from the firm and the remaining partners decided to carry on the business. It was agreed to revalue the assets and reassess the liabilities as follows:

(i) Goodwill of the firm was valued at ₹ 3,00,000 and Anita's share of goodwill was adjusted in the capital accounts of the remaining partners, Gaurav and Sonu.

(ii) Land and Building was to be brought up to 120% of its book value.

(iii) Bad debts amounted to ₹ 20,000. A provision for doubtful debts was to be maintained at 10% on debtors.

(iv) Market value of investments was ₹ 1,10,000.

(v) ₹ 1,00,000 was paid immediately by cheque to Anita out of the amount due and the balance was to be transferred to her loan account which was to be paid in two equal annual instalments along with interest @ 10% p.a.

Prepare the Revaluation Account, Partners' Capital Accounts and the Balance Sheet of the reconstituted firm on Anita's retirement. [8 marks]

Solution:

Concept:

- Profits and losses are shared in the capital ratio $2,00,000 : 2,00,000 : 1,00,000 = 2 : 2 : 1$. Revaluation profit and accumulated reserves belong to all old partners in that ratio.
- The retiring partner's goodwill share is borne by continuing partners in their gaining ratio; goodwill is adjusted through capitals without raising a goodwill asset.
- An investment fluctuation fund first absorbs a fall in investments; its excess is credited to the old partners. The unpaid retirement settlement becomes a loan liability.

Step 1: Calculate goodwill and reserve adjustments **Working Notes** The old ratio of Anita, Gaurav and Sonu is $2 : 2 : 1$. Gaurav and Sonu continue in $2 : 1$; their gains are $2/3 - 2/5 = 4/15$ and $1/3 - 1/5 = 2/15$, so the gaining ratio is $2 : 1$.

Anita's goodwill share is $3,00,000 \times 2/5 =$ Rs $1,20,000$. Debit Gaurav's capital Rs 80,000 and Sonu's capital Rs 40,000, and credit Anita's capital Rs 1,20,000. No goodwill asset appears in the new Balance Sheet.

Investments fall by $1,20,000 - 1,10,000 =$ Rs $10,000$. Use Rs 10,000 of the Investment Fluctuation Fund against this fall, and distribute the remaining Rs 30,000 as Rs 12,000, Rs 12,000 and Rs 6,000. The General Reserve of Rs 30,000 is distributed in the same amounts.

Step 2: Calculate revaluation changes Land and Building is revalued to $5,00,000 \times 120\% =$ Rs $6,00,000$, a gain of Rs 1,00,000.

After writing off bad debts, debtors are $1,50,000 - 20,000 =$ Rs $1,30,000$. The new provision is $1,30,000 \times 10\% =$ Rs $13,000$. Net debtors become Rs 1,17,000. The reduction from the old net debtors of Rs 1,40,000 is Rs 23,000. In the Revaluation Account, write off the bad debts and create the new provision on the debit side, while reversing the old provision on the credit side. The investment fall is already absorbed by its fund, so it is not charged again here.

Step 3: Prepare the Revaluation Account **Revaluation Account**

Dr.		Cr.	
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Debtors (bad debts)	20,000	By Land and Building	1,00,000
To Provision for doubtful debts (new)	13,000	By Provision for doubtful debts (old)	10,000
To Anita's Capital (profit)	30,800		
To Gaurav's Capital (profit)	30,800		
To Sonu's Capital (profit)	15,400		
Total	1,10,000	Total	1,10,000

The profit of $1,00,000 - 23,000 =$ Rs $77,000$ is divided in the old ratio $2 : 2 : 1$.

Step 4: Prepare the Partners' Capital Accounts **Partners' Capital Accounts (amounts in Rs)**

Dr.							Cr.
Particulars	Anita	Gaurav	Sonu	Particulars	Anita	Gaurav	Sonu
To Anita's Capital (goodwill)	–	80,000	40,000	By Balance b/d	2,00,000	2,00,000	1,00,000
To Bank	1,00,000	–	–	By General Reserve	12,000	12,000	6,000
To Anita's Loan	2,74,800	–	–	By Investment Fluctuation Fund	12,000	12,000	6,000
To Balance c/d	–	1,74,800	87,400	By Revaluation	30,800	30,800	15,400
				By Gaurav's Capital (goodwill)	80,000	–	–
				By Sonu's Capital (goodwill)	40,000	–	–
Total	3,74,800	2,54,800	1,27,400	Total	3,74,800	2,54,800	1,27,400

Anita is due Rs 3,74,800. After immediate payment of Rs 1,00,000, transfer Rs 2,74,800 to her Loan Account. The two annual principal instalments are Rs 1,37,400 each, with interest at 10% on the outstanding loan. No future interest is recognised in the retirement-date Balance Sheet.

Step 5: Prepare the reconstituted balance sheet The bank balance after paying Anita is $1,70,000 - 1,00,000 =$ Rs $70,000$. Gaurav's and Sonu's remaining capitals are Rs 1,74,800 and Rs 87,400 respectively.

Balance Sheet of Gaurav and Sonu as at 31st March, 2019

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capitals:		Land and Building	6,00,000
Gaurav	1,74,800	Investments	1,10,000
Sonu	87,400	Debtors: Rs 1,30,000	
Total capital	2,62,200	Less: Provision Rs 13,000	1,17,000
Anita's Loan	2,74,800	Stock	1,00,000
Creditors	4,60,000	Cash at bank	70,000
Total	9,97,000	Total	9,97,000

Step 6: Conclusion Revaluation profit is **Rs 77,000**. Anita's loan is **Rs 2,74,800**; closing capitals are Gaurav **Rs 1,74,800** and Sonu **Rs 87,400**. The Balance Sheet totals **Rs 9,97,000**.

Quick Tip to Solve: Use the investment fund against the investment loss before distributing its excess; calculate the new debtors provision after writing off bad debts.

Part B (20 marks)

OPTION 1 (Analysis of Financial Statements)

23. An investment normally qualifies as a cash equivalent only when it has a maturity of _____ months or less from the date of acquisition. [1 mark]

Solution:

Concept:

- Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash.
- They must carry an insignificant risk of changes in value; the normal maturity test is applied from the date of acquisition.

Step 1: Apply the normal maturity criterion An investment normally qualifies as a cash equivalent when its maturity is three months or less from the date on which the enterprise acquires it. The period is measured from acquisition, rather than from the reporting date.

Step 2: Fill the blank The missing number is therefore 3. A longer-term investment does not become a cash equivalent merely because only three months remain at the balance sheet date; the acquisition-date test is the relevant one here.

Step 3: Conclusion The blank is **three (3) months**.

Quick Tip to Solve: Underline "from the date of acquisition": the normal three-month test starts when the investment is acquired.

24. X Ltd. purchased furniture for ₹ 20,00,000 paying 60% by issue of equity shares of ₹ 10 each and the balance by a cheque. This transaction will result in: [1 mark]

(A) Cash used in investing activities ₹ 20,00,000.

(B) Cash generated from financing activities ₹ 12,00,000.

(C) Increase in cash and cash equivalents ₹ 8,00,000.

(D) Cash used in investing activities ₹ 8,00,000.

Correct Answer: (D) Cash used in investing activities ₹ 8,00,000.

Solution:

Concept:

- Acquisition of furniture is an investing activity because furniture is a non-current tangible asset.
- Only the cash component enters the cash flow statement; an asset acquired by issuing shares is a non-cash transaction.

Step 1: Separate the cash and non-cash consideration The shares issued directly to the furniture vendor settle 60% of the price, without a cash receipt or payment. The non-cash portion is

Rs $20,00,000 \times 60\% =$ Rs $12,00,000$. The remaining 40% is paid by cheque:

$$\text{Cash payment} = 20,00,000 \times 40\% = \text{Rs } 8,00,000.$$

Step 2: Classify the actual cash payment The cheque payment is cash used in investing activities. Option (A) incorrectly includes the non-cash share consideration; (B) incorrectly treats shares issued to the vendor as a financing cash inflow; and (C) incorrectly shows an increase even though cash is paid out.

Step 3: Conclusion Cash used in investing activities is Rs $8,00,000$. Hence, the correct option is (D).

Quick Tip to Solve: For an asset bought partly by shares, first remove the share-settled amount and classify only the cheque payment as an investing outflow.

25. Which of the following is not a limitation of 'Financial Statements Analysis'? [1 mark]

(A) It is affected by personal bias.

(B) Inter-firm comparative study possible.

(C) Lack of qualitative analysis.

(D) Ignores price level changes.

Correct Answer: (B) Inter-firm comparative study possible.

Solution:

Concept:

- Financial statement analysis interprets financial information to assess profitability, financial position and performance.
- A limitation restricts the reliability or scope of analysis, whereas a useful comparison is a benefit.

Step 1: Identify the genuine limitations Personal bias in accounting estimates or interpretation can affect analysis. Qualitative factors such as management competence and employee morale are not fully captured by financial figures. Historical figures also ignore changes in the purchasing power of money. Thus (A), (C) and (D) describe limitations.

Step 2: Evaluate inter-firm comparison Analysis permits comparison of the performance and financial position of different firms, especially through comparable ratios. Such comparison helps identify relative strengths and weaknesses; its availability is a usefulness of analysis. Although differences in accounting policies can restrict comparability, the statement that comparison is possible is itself a benefit.

Step 3: Conclusion Inter-firm comparative study possible is not a limitation. Hence, the correct option is (B).

Quick Tip to Solve: For a negative question about limitations, separate useful outcomes of analysis from factors that reduce its reliability.

26. State the objective of preparing 'Cash Flow Statement'. [1 mark]

Solution:

Concept:

- A cash flow statement reports movements in cash and cash equivalents during an accounting period.
- Cash flows are classified into operating, investing and financing activities to explain their sources and uses.

Step 1: Identify the information to be explained The statement identifies where cash and cash equivalents came from and how they were used during the period. This explains why the closing cash and cash-equivalent balance differs from the opening balance.

Step 2: Relate the information to financial assessment Classifying receipts and payments into operating, investing and financing activities helps users assess the ability of the enterprise to generate cash and meet its cash requirements. Accounting profit alone does not provide this information because credit transactions and non-cash expenses can affect profit without an equivalent cash movement.

Step 3: Conclusion The objective is to explain the changes in cash and cash equivalents during the period by showing cash inflows and outflows from operating, investing and financing activities.

Quick Tip to Solve: State both the change in cash and its three activity classifications when asked for the objective of a cash flow statement.

27. Under which of the following head/subhead is 'Forfeited Shares' presented in the Balance Sheet of a company? [1 mark]

(A) Reserves and Surplus

(B) Share Capital

(C) Other Long-term Liabilities

(D) Other Current Liabilities

Correct Answer: (B) Share Capital

Solution:

Concept:

- The amount received on forfeited shares that have not yet been reissued is disclosed under Share Capital.
- A capital reserve arises from the surplus on reissue only after the relevant forfeited shares are reissued.

Step 1: Identify the nature of the balance Share Forfeiture Account contains the amount already received towards share capital on shares subsequently forfeited. For forfeited shares not yet reissued, this amount is presented in the note to Share Capital, under the broad heading Shareholders' Funds.

Step 2: Distinguish the other classifications Reserves and Surplus would include the capital profit

transferred to Capital Reserve after reissue, not the unreissued forfeited-share balance asked for here. The retained amount is not an obligation to repay an outside party, so neither Other Long-term Liabilities nor Other Current Liabilities is appropriate.

Step 3: Conclusion Forfeited Shares are presented under Share Capital. Hence, the correct option is (B).

Quick Tip to Solve: Distinguish the forfeiture balance before reissue from the capital profit transferred to Capital Reserve after reissue.

28. Which of the following is not a subhead under the Current Assets? [1 mark]

(A) Cash and Cash Equivalents

(B) Trademarks

(C) Short-term Loans and Advances

(D) Inventories

Correct Answer: (B) Trademarks

Solution:

Concept:

- Current assets include assets expected to be realised, sold or consumed within the operating cycle, and other assets meeting the current classification criteria.
- A trademark is an identifiable intangible asset and is normally classified under non-current assets.

Step 1: Classify the trademark A trademark gives the business rights associated with its name or symbol and generally provides benefits over more than one accounting period. In the prescribed company balance sheet classification, it belongs to intangible assets under non-current assets.

Step 2: Check the remaining alternatives Cash and Cash Equivalents, Short-term Loans and Advances, and Inventories are prescribed subheads of Current Assets. Inventories are held for sale or consumption in the operating cycle, while short-term advances and cash meet the current nature of the stated heads. Therefore these three alternatives cannot answer the question asking which is not a current-asset subhead.

Step 3: Conclusion Trademarks are not a subhead under Current Assets. Hence, the correct option is (B).

Quick Tip to Solve: Identify the intangible right in the list: a trademark belongs to non-current intangible assets, unlike cash, inventory and short-term advances.

29. What will be the effect of purchase of goods for cash ₹ 3,000 on Gross Profit Ratio? [1 mark]

Solution:

Concept:

- Gross Profit Ratio is $\dfrac{\text{Gross Profit}}{\text{Revenue from Operations}} \times 100$.
- A purchase of goods exchanges one asset for another; by itself, it does not constitute a sale or create gross profit.

Step 1: Trace the cash purchase Buying goods for cash of Rs $3,000$ reduces cash and increases inventory by the same amount. The transaction does not change revenue from operations because no goods have yet been sold.

Step 2: Check the effect on gross profit For the purchased goods remaining in inventory, purchases and closing inventory increase equally by Rs $3,000$. In Cost of Revenue from Operations $=$ Opening Inventory$+$Net Purchases$+$Direct Expenses$-$Closing Inventory, these changes cancel. Gross profit and its sales denominator therefore both remain unchanged.

Step 3: Conclusion Purchase of goods for cash of Rs 3,000 has no effect on the Gross Profit Ratio.

Quick Tip to Solve: For an isolated purchase transaction, account for the equal increase in purchases and inventory before deciding whether gross profit changes.

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30. From the following information obtained from the books of P. Ltd., calculate, (i) Return on Investment, and (ii) Debt-Equity Ratio:

Information: Net Profit after interest and tax ₹ 6,00,000; 6% Debentures ₹ 10,00,000; Capital employed ₹ 20,00,000, and Tax rate 40%. [3 marks]

Solution:

Concept:

- Return on Investment (ROI) is $\dfrac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$.
- Debt-Equity Ratio is $\dfrac{\text{Long-term Debt}}{\text{Shareholders' Funds}}$; capital employed equals shareholders' funds plus long-term debt.
- Profit after tax equals profit before tax multiplied by $1-t$, where t is the tax rate expressed as a decimal.

Step 1: Recover profit before tax The given net profit of Rs 6,00,000 is after both interest and tax. At a tax rate of 40%, this is 60% of profit before tax, so the tax cannot be computed as 40% of the after-tax amount.

$$\text{Profit before Tax} = \frac{6,00,000}{1-0.40} = \text{Rs } 10,00,000.$$

This profit is still after deducting debenture interest.

Step 2: Calculate profit before interest and tax The annual interest on the 6% debentures is

$$\text{Interest} = 10,00,000 \times \frac{6}{100} = \text{Rs } 60,000.$$

Add back this financing cost to profit before tax because ROI measures the return earned on capital supplied by both owners and long-term lenders.

$$\text{Profit before Interest and Tax} = 10,00,000 + 60,000 = \text{Rs } 10,60,000.$$

Step 3: Calculate Return on Investment Use the given capital employed of Rs 20,00,000 as the denominator:

$$\text{ROI} = \frac{10,60,000}{20,00,000} \times 100 = 53\%.$$

The numerator is before interest and tax so it is consistent with the total long-term capital in the denominator.

Step 4: Calculate the Debt-Equity Ratio The stated long-term debt is the debenture balance of Rs 10,00,000. Deduct it from capital employed to obtain shareholders' funds:

$$\text{Shareholders' Funds} = 20,00,000 - 10,00,000 = \text{Rs } 10,00,000.$$

Hence

$$\text{Debt-Equity Ratio} = \frac{10,00,000}{10,00,000} = 1:1.$$

Use the debenture principal, not its annual interest, as debt.

Step 5: Conclusion (i) Return on Investment is 53%. (ii) Debt-Equity Ratio is $1:1$.

Quick Tip to Solve: To reverse after-tax profit, divide by the after-tax fraction first; then add interest. For equity, subtract long-term debt from capital employed.

OR

30. (i) Current Liabilities ₹ 1,50,000, Current Assets ₹ 2,80,000, Inventories ₹ 40,000, Advance Tax ₹ 30,000, and Prepaid Rent ₹ 10,000. Calculate Quick Ratio.

(ii) Average Inventory ₹ 60,000, Revenue from Operations ₹ 6,00,000, the rate of Gross Loss on Sales is 10%. Calculate the Inventory Turnover Ratio. [3 marks]

Solution:

Concept:

- Quick ratio measures the cover for current liabilities available from quick assets: Quick ratio = Quick assets/Current liabilities.
- Quick assets exclude inventories, prepaid expenses and advance tax from current assets, since they cannot readily discharge current liabilities.
- Inventory turnover ratio is Cost of revenue from operations/Average inventory. A gross loss means

that cost exceeds sales, so the loss must be added to sales to obtain cost.

Step 1: (i) Determine the quick assets Deduct inventories, advance tax and prepaid rent from current assets:

$$\begin{aligned}\text{Quick assets} &= 2,80,000 - 40,000 - 30,000 - 10,000\\ &= \text{Rs } 2,00,000.\end{aligned}$$

Step 2: (i) Compare quick assets with current liabilities Current liabilities are Rs 1,50,000. Therefore,

$$\text{Quick ratio} = \frac{2,00,000}{1,50,000} = \frac{4}{3} = 1.33 : 1 \text{ (approximately)}.$$

Using total current assets here would give the current ratio instead.

Step 3: (ii) Calculate the gross loss and cost of revenue from operations The loss rate is given on sales, so apply 10% to revenue from operations, not to cost:

$$\begin{aligned}\text{Gross loss} &= 6,00,000 \times \frac{10}{100} = \text{Rs } 60,000,\\ \text{Cost of revenue from operations} &= 6,00,000 + 60,000\\ &= \text{Rs } 6,60,000.\end{aligned}$$

Dividing this cost by the given average inventory:

$$\text{Inventory turnover ratio} = \frac{6,60,000}{60,000} = 11 \text{ times}.$$

Step 4: Conclusion (i) Quick ratio $= 4 : 3$, or approximately $1.33 : 1$. (ii) Inventory turnover ratio $= 11$ times.

Quick Tip to Solve: Exclude advance tax as well as inventory and prepaid rent for quick assets; add a gross loss to sales before calculating inventory turnover.

31. From the following particulars obtained from the books of Mark Ltd., prepare a Comparative Statement of Profit and Loss:

Particulars	2017-18 (₹)	2016-17 (₹)
Revenue from operations	50,00,000	40,00,000
Purchase of stock-in trade	40,00,000	30,00,000
Changes in inventory	10,00,000	8,00,000
Other expenses	5,00,000	4,00,000
Other incomes	2,50,000	2,00,000

[4 marks]

Solution:

Concept:

- A comparative statement of profit and loss places the previous year and current year side by side, with the absolute and percentage changes. The previous year, 2016–17, is the base year.
- Absolute change equals current-year amount minus previous-year amount. Percentage change equals absolute change divided by the previous-year amount, multiplied by 100.
- Total revenue includes revenue from operations and other income. Total expenses include purchases, changes in inventory and other expenses; profit or loss is total revenue less total expenses.

Step 1: Work out total revenue, expenses and the result **Working Notes** The changes in inventory are printed as positive expense amounts, so add them to purchases and other expenses in each year.

$$\begin{aligned}
\text{Revenue, 2016–17} &= 40,00,000 + 2,00,000 = \text{Rs } 42,00,000,\\
\text{Revenue, 2017–18} &= 50,00,000 + 2,50,000 = \text{Rs } 52,50,000,\\
\text{Expenses, 2016–17} &= 30,00,000 + 8,00,000 + 4,00,000\\
&= \text{Rs } 42,00,000,\\
\text{Expenses, 2017–18} &= 40,00,000 + 10,00,000 + 5,00,000\\
&= \text{Rs } 55,00,000.
\end{aligned}$$

Thus, the earlier year breaks even and the current year has a loss before tax of Rs 2,50,000. No tax expense is supplied, so the statement ends with the result before tax.

Step 2: Prepare the comparative statement **Mark Ltd.**
Comparative Statement of Profit and Loss
For the years ended 31st March, 2017 and 2018

Particulars	2016–17 Rs	2017–18 Rs	Change Rs	Change (%)
I. Revenue from operations	40,00,000	50,00,000	10,00,000	25.00
II. Other income	2,00,000	2,50,000	50,000	25.00
III. Total revenue (I + II)	42,00,000	52,50,000	10,50,000	25.00
IV. Expenses:				
Purchases of stock-in-trade	30,00,000	40,00,000	10,00,000	33.33
Changes in inventory	8,00,000	10,00,000	2,00,000	25.00
Other expenses	4,00,000	5,00,000	1,00,000	25.00
Total expenses	42,00,000	55,00,000	13,00,000	30.95
V. Profit/(loss) before tax (III - IV)	0	(2,50,000)	(2,50,000)	—

Parentheses indicate a loss or decrease. Percentage changes are rounded to two decimal places. The dash in the last row means that percentage change cannot be calculated because the base-year result is zero.

Step 3: Check the change calculations For purchases, the increase is Rs 10,00,000 on the base of Rs 30,00,000, giving $10,00,000/30,00,000 \times 100 = 33.33\%$. For total expenses, $13,00,000/42,00,000 \times 100 = 30.95\%$. The revenue increase of Rs 10,50,000 is smaller than the expense increase of Rs 13,00,000; their difference explains the deterioration of Rs 2,50,000 in the result.

Step 4: Conclusion Total revenue increased by 25% to Rs 52,50,000, while total expenses increased by 30.95% to Rs 55,00,000. Mark Ltd. moved from a nil result in 2016–17 to a loss before tax of Rs 2,50,000 in 2017–18.

Quick Tip to Solve: Keep 2016–17 as the denominator for every percentage change, and use a dash for the profit percentage because its base-year amount is zero.

OR

31. From the following Balance Sheet of Swaraj Ltd., as at 31st March, 2019, prepare a common size Balance Sheet:

Particulars	31.3.2019 (₹)	31.3.2018 (₹)
I - Equity and Liabilities:		
1. Shareholders Funds: (a) Share Capital	34,00,000	30,00,000
(b) Reserves and Surplus	10,00,000	10,00,000
2. Non-Current Liabilities: Long-term Borrowings	5,00,000	3,00,000
3. Current Liabilities: Trade Payables	1,00,000	7,00,000
Total	50,00,000	50,00,000
II - Assets:		
1. Non-Current Assets: Tangible Assets	36,00,000	28,00,000
2. Current Assets: (a) Inventories	13,00,000	20,00,000
(b) Cash and Cash Equivalents	1,00,000	2,00,000
Total	50,00,000	50,00,000

[4 marks]

Solution:

Concept:

- A common size Balance Sheet expresses each equity and liability item as a percentage of total equity and liabilities, and each asset as a percentage of total assets, for the same date.
- Common size percentage $= \dfrac{\text{Individual item}}{\text{Balance Sheet total}} \times 100$. Each side totals 100%; a percentage is a composition measure, not a year-on-year growth rate.

Step 1: Choose the base and calculate the percentages The Balance Sheet total is Rs 50,00,000 on both dates. Therefore the denominator is the same for every amount in this question. For example,

$$\text{Share capital, 2019} = \frac{34,00,000}{50,00,000} \times 100 = 68\%,$$

$$\text{Share capital, 2018} = \frac{30,00,000}{50,00,000} \times 100 = 60\%,$$

$$\text{Tangible assets, 2019} = \frac{36,00,000}{50,00,000} \times 100 = 72\%.$$

Apply the same calculation separately to every other item. Since one per cent of Rs 50,00,000 is Rs 50,000, dividing each amount by Rs 50,000 gives its percentage directly.

Step 2: Prepare the common size statement **Swaraj Ltd.**

Common Size Balance Sheet as at 31st March, 2019

Particulars	2019 (Rs)	2018 (Rs)	2019 (%)	2018 (%)
I. Equity and Liabilities				
1. Shareholders' funds				
(a) Share capital	34,00,000	30,00,000	68	60
(b) Reserves and surplus	10,00,000	10,00,000	20	20
Total shareholders' funds	44,00,000	40,00,000	88	80
2. Non-current liabilities				
Long-term borrowings	5,00,000	3,00,000	10	6
3. Current liabilities				
Trade payables	1,00,000	7,00,000	2	14
Total	**50,00,000**	**50,00,000**	**100**	**100**
II. Assets				
1. Non-current assets				
Fixed assets: Tangible assets	36,00,000	28,00,000	72	56
2. Current assets				
(a) Inventories	13,00,000	20,00,000	26	40
(b) Cash and cash equivalents	1,00,000	2,00,000	2	4
Total current assets	14,00,000	22,00,000	28	44
Total	**50,00,000**	**50,00,000**	**100**	**100**

Step 3: Check the percentage totals On the equity and liabilities side, $68 + 20 + 10 + 2 = 100$ for 2019 and $60+20+6+14 = 100$ for 2018. On the assets side, $72+26+2 = 100$ for 2019 and $56+40+4 = 100$ for 2018. Subtotals are checks and are not added again to the individual components.

Step 4: Conclusion Both sides equal 100% in each year. Shareholders' funds represent 88% of total financing in 2019 and 80% in 2018; tangible assets represent 72% and 56% of total assets respectively.

Quick Tip to Solve: With a total of Rs 50,00,000 in both years, every Rs 50,000 is one percentage point; check each side sums to 100 without double-counting subtotals.

32. Cash flow from the operating activities of Pinnacle Ltd. for the year ended 31st March, 2019 was Rs 28,000. The Balance Sheet along with notes to accounts of Pinnacle Ltd. as at 31st March, 2019 is given below:

Pinnacle Ltd.

Balance Sheet as at 31st March, 2019

Particulars	Note No.	31.3.2019 (Rs)	31.3.2018 (Rs)
I. Equity and Liabilities			
1. Shareholders' Funds			
(a) Share Capital		9,00,000	5,00,000
(b) Reserves and Surplus	1	90,000	1,10,000
2. Non-Current Liabilities			
Long-term Borrowings	2	3,00,000	2,00,000
3. Current Liabilities			
Trade Payables		60,000	80,000
Total		13,50,000	8,90,000
II. Assets			
1. Non-Current Assets			
Fixed Assets			
(i) Tangible Assets	3	7,46,000	5,24,000
(ii) Intangible Assets	4	36,000	76,000
2. Current Assets			
(a) Current Investments		1,30,000	20,000
(b) Inventories		2,00,000	1,30,000
(c) Cash and Cash Equivalents		2,38,000	1,40,000
Total		13,50,000	8,90,000

Notes to Accounts

Note No.	Particulars	31.3.2019 (Rs)	31.3.2018 (Rs)
1.	Reserves and Surplus (Balance in Statement of Profit and Loss)	90,000	1,10,000
2.	Long-term Borrowings 9% Debentures	3,00,000	2,00,000
3.	Tangible Assets Plant and Machinery Accumulated Depreciation	8,86,000 (1,40,000) 7,46,000	6,04,000 (80,000) 5,24,000
4.	Intangible Assets Goodwill	36,000	76,000

You are given the following additional information:

(i) A machinery of the book value of Rs 90,000 (depreciation provided thereon was Rs 23,000), was sold at a profit of Rs 12,000.

(ii) 9% debentures were issued on 1st April, 2018.

Prepare the Cash Flow Statement. [6 marks]

Solution:

Concept:

- A Cash Flow Statement classifies cash movements into operating, investing and financing activities. The net increase in cash and cash equivalents equals the sum of these three categories.
- Machinery purchases and sale proceeds are investing cash flows. Share and debenture issues are financing inflows; interest paid on debentures is a financing outflow for a non-financial company.
- A sold asset's original cost equals its book value plus accumulated depreciation. Sale proceeds equal book value plus profit on sale. Depreciation and goodwill written off are non-cash items.

Step 1: Determine machinery purchases and sale proceeds **Working Notes**

The machinery sold had a book value of Rs 90,000 after depreciation of Rs 23,000. Its original cost and cash proceeds are different amounts:

$$\text{Original cost sold} = 90,000 + 23,000 = \text{Rs } 1,13,000,$$
$$\text{Sale proceeds} = 90,000 + 12,000 = \text{Rs } 1,02,000.$$

Use the gross Plant and Machinery balances from Note 3, because the original cost of the asset sold must be removed from the gross balance:

$$\begin{aligned}\text{Purchases} &= \text{Closing gross cost} - \text{Opening gross cost} \\ &\quad + \text{Original cost of machinery sold} \\ &= 8,86,000 - 6,04,000 + 1,13,000 \\ &= \text{Rs } 3,95,000.\end{aligned}$$

The accumulated depreciation movement gives depreciation for the year of $1,40,000 - 80,000 + 23,000 = \text{Rs } 83,000$. It is non-cash; operating cash flow is already supplied, so it is not added again.

Step 2: Calculate investment and financing cash flows The increase in current investments is $1,30,000 - 20,000 = \text{Rs } 1,10,000$, an investing outflow. Current investments are shown separately from cash and cash equivalents in the Balance Sheet. Share capital increases by $9,00,000 - 5,00,000 = \text{Rs } 4,00,000$, and debentures increase by $3,00,000 - 2,00,000 = \text{Rs } 1,00,000$. These are financing inflows. The additional debentures were issued on 1st April, 2018, so the full closing debenture amount bears interest for the entire year:

$$\text{Interest paid} = 3,00,000 \times \frac{9}{100} = \text{Rs } 27,000.$$

No unpaid interest or non-cash issue or acquisition is stated. Goodwill decreases by Rs 40,000; its write-off is not a cash payment. Changes in inventories, trade payables and profit are already reflected in the given operating cash flow of Rs 28,000 and are not separately adjusted again.

Step 3: Prepare the Cash Flow Statement **Pinnacle Ltd.**

Cash Flow Statement for the year ended 31st March, 2019

Particulars	Amount (Rs)	Amount (Rs)
A. Cash flow from operating activities		
Net cash from operating activities (given)		28,000
B. Cash flow from investing activities		
Proceeds from sale of machinery	1,02,000	
Purchase of plant and machinery	(3,95,000)	
Purchase of current investments	(1,10,000)	
Net cash used in investing activities		(4,03,000)
C. Cash flow from financing activities		
Proceeds from issue of share capital	4,00,000	
Proceeds from issue of 9% debentures	1,00,000	
Interest paid on debentures	(27,000)	
Net cash from financing activities		4,73,000
Net increase in cash and cash equivalents (A+B+C)		**98,000**
Add: Cash and cash equivalents at 1st April, 2018		1,40,000
Cash and cash equivalents at 31st March, 2019		**2,38,000**

Step 4: Reconcile the movement with the Balance Sheet

$$\begin{aligned} \text{Net cash movement} &= 28,000 - 4,03,000 + 4,73,000 \\ &= \text{Rs } 98,000, \\ \text{Closing less opening cash} &= 2,38,000 - 1,40,000 \\ &= \text{Rs } 98,000. \end{aligned}$$

The independent Balance Sheet check agrees with the statement. Parentheses denote cash outflows.

Step 5: Conclusion Net cash from operating activities is Rs 28,000, net cash used in investing activities is Rs 4,03,000, and net cash from financing activities is Rs 4,73,000. Cash and cash equivalents increase by Rs 98,000 to Rs 2,38,000.

Quick Tip to Solve: Restore depreciation to the sold machine's book value before calculating purchases from gross balances; charge a full year's interest on the debentures issued on 1st April.

OPTION 2 (Computerised Accounting)

23. Hardware refers to: [1 mark]

(A) System software and application software.

(B) Computer associated peripherals and their network.

(C) A logical sequence of actions to perform a task.

(D) All of the above.

Correct Answer: (B) Computer associated peripherals and their network.

Solution:

Concept:

- Hardware means the physical equipment of a computer system, including its input, processing, storage, output and communication devices.
- Software consists of programs and instructions; a procedure is an ordered sequence of actions for completing a task.

Step 1: Identify the physical components Computer peripherals, such as the keyboard, mouse, monitor and printer, are physical devices. The physical equipment connecting computers in a network also belongs to hardware. Thus the description in option (B) identifies hardware.

Step 2: Eliminate the other descriptions System software and application software in option (A) are programs, not physical equipment. A logical sequence of actions in option (C) describes a procedure, not hardware. Since (A) and (C) are not definitions of hardware, option (D), All of the above, is also incorrect.

Step 3: Conclusion Hardware refers to computer associated peripherals and their network. Hence, the correct option is (B).

Quick Tip to Solve: Separate the physical devices from the programs and procedures: peripherals belong to hardware, whereas instructions belong to software.

24. To safeguard assets and optimise the use of resources, a business: [1 mark]

(A) Keeps internal controls.

(B) Only tries to achieve maximum revenue.

(C) Only ensures accurate accounting records.

(D) Only safeguards assets.

Correct Answer: (A) Keeps internal controls.

Solution:

Concept:

- Internal controls are the policies and procedures established to protect assets, improve operational efficiency and ensure reliable accounting information.
- Safeguarding assets and using resources efficiently are related objectives of an effective internal control system.

Step 1: Identify the required system The business needs arrangements such as authorisation of transactions, division of duties and verification of assets. These controls reduce misuse and help resources serve their intended purposes.

Step 2: Compare all the options Option (A) covers both asset protection and efficient resource use. Option (B) concentrates only on revenue; option (C) only on record accuracy; and option (D) only on asset protection. Each of these restricted objectives omits part of the question.

Step 3: Conclusion The business keeps internal controls. Hence, the correct option is (A).

Quick Tip to Solve: When asset protection and efficient resource use appear together, identify the wider internal control system.

25. The existence of data in a 'primary key' field is: [1 mark]

(A) Not necessarily required.

(B) Required but need not be unique.

(C) Required and must be unique.

(D) All of the above.

Correct Answer: (C) Required and must be unique.

Solution:

Concept:

- A primary key is a field, or combination of fields, that uniquely identifies each record in a database table.
- Entity integrity requires a primary key value to be present and unique; null or duplicate primary key values are not permitted.

Step 1: Check the need for a value Without a primary key value, a record cannot be identified through its designated key. Thus the key cannot be left null, so option (A) is incorrect.

Step 2: Check uniqueness If two records had the same primary key, the key would not identify one record uniquely. Option (B) therefore fails. Option (C) satisfies both requirements. Since (A) and (B) are false, option (D), all of the above, is also false.

Step 3: Conclusion Data in the primary key field is required and must be unique. Hence, the correct option is (C).

Quick Tip to Solve: Apply both primary-key checks: no missing value and no repeated value.

26. A ##### error appears when: [1 mark]

(A) A negative data is used.

(B) Column is not wide enough.

(C) Negative time is used.

(D) All of the above.

Correct Answer: No unique option: (B) and (C) are valid causes; (A) says negative data, which alone does not cause hashes.

Solution:

Concept:

- A display of ##### commonly indicates that a column is too narrow to show its formatted numeric value.
- In the usual Excel date system, a negative date or time formatted as a date or time can also produce hashes. A negative number by itself is valid data.

Step 1: Test the stated causes Option (B) is a valid cause: a formatted value may not fit in the column. Option (C) is also a valid cause when a negative time cannot be displayed in the standard date/time system. Widening a column fixes the first condition, but not an invalid negative time.

Step 2: Check the literal wording of option (A) The paper says negative data, not negative date. Ordinary negative numeric data, such as -25, can be displayed normally, so option (A) is not generally true. Consequently, option (D), all of the above, cannot be justified from the printed wording. Both (B) and (C) describe recognised causes, leaving no unique correct selection.

Step 3: Conclusion As printed, the item is ambiguous: options (B) and (C) are valid causes, whereas negative data alone does not justify (A) or all of the above (D).

Quick Tip to Solve: First widen the column; if hashes persist in a time cell, check whether its calculated time is negative.

27. The _____ provides real power to database in terms of its capacities to answer complex requests involving data to be taken from _____ tables. [1 mark]

Solution:

Concept:

- A query is a request to retrieve selected information from a database according to specified conditions.
- Queries can combine related data from multiple tables through their common fields.

Step 1: Identify the database facility A table stores records, while a query selects and combines the records needed to answer a particular request. The facility described in the first blank is therefore a query.

Step 2: Identify the scope of the request A complex request may need information stored in more than one table. For example, a query can combine customer details with related invoice records. The

second blank describes multiple tables.

Step 3: Conclusion The blanks are **query** and **multiple**, respectively.

Quick Tip to Solve: Link a request for selected data to a query, and a request combining related records to multiple tables.

28. A code which consists of alphabet or abbreviation as symbol to codify a piece of information is known as _____ code. [1 mark]

Solution:

Concept:

- Coding assigns symbols to information so that it can be recorded, classified and retrieved conveniently.
- A mnemonic code uses meaningful letters or abbreviations associated with the item being coded.

Step 1: Recognise the identifying feature The question specifies an alphabetic symbol or abbreviation. Its purpose is to make the code suggest the information represented, so it can be remembered easily.

Step 2: Distinguish the code from a serial number For example, an abbreviation such as PUR can represent purchases. A serial or sequential code merely assigns numbers in order; it need not remind the user of the meaning of the information.

Step 3: Conclusion The required term is **mnemonic code**.

Quick Tip to Solve: When the code is a meaningful abbreviation that helps recall the item, use the term mnemonic.

29. A _____ voucher is used for adjustment of non-cash transaction in the ledger. [1 mark]

Solution:

Concept:

- A voucher supports an accounting entry and identifies the accounts affected by a transaction.
- A journal voucher records adjustments and other non-cash transactions that do not belong to cash or bank receipt/payment vouchers.

Step 1: Identify the nature of the entry The question describes an adjustment without a cash transaction. Such an adjustment changes ledger balances without recording an immediate receipt or payment of money.

Step 2: Select the appropriate voucher Adjustments for depreciation or an outstanding expense are typical examples recorded through a journal voucher. A receipt or payment voucher is inappropriate because it would indicate money received or paid.

Step 3: Conclusion A **journal voucher** is used for adjustment of a non-cash transaction in the ledger.

Quick Tip to Solve: For an adjustment with no cash or bank movement, think of a journal voucher.

30. What information is provided by a salary bill? [3 marks]

Solution:

Concept:

- A salary bill is a payroll statement showing the salary earned, deductions and net amount payable to employees for a specified period.
- Gross earnings include basic pay and applicable allowances; net salary is gross earnings less total deductions.

Step 1: Identify the employee and salary period The bill identifies the employee by name or employee number and ordinarily shows the designation or department and the month or period to which the salary relates. Attendance, days worked or payable days may also appear where they affect the salary calculation. These details connect the payment to the correct employee and period.

Step 2: Show the earnings making up gross salary It provides the components of earnings, such as basic pay, dearness allowance, house rent allowance and any other applicable allowances or overtime. These amounts are added to determine gross salary. Showing the components allows the employee and the accounts department to verify how total earnings were calculated.

Step 3: Show deductions and net amount payable The bill lists applicable deductions, such as provident fund contribution, income tax deducted at source and recovery of an employee loan or advance. It totals these deductions and shows the take-home amount. The calculation is

$$\text{Net salary payable} = \text{Gross salary} - \text{Total deductions}.$$

Thus the statement explains the difference between the salary earned and the amount actually payable.

Step 4: Conclusion A salary bill provides employee and period details, the break-up of gross earnings, itemised deductions and the resulting net salary payable.

Quick Tip to Solve: Organise a salary-bill answer as employee details, earnings, deductions and net pay; check gross pay less deductions equals net pay.

OR

30. List the various attributes of a 'payroll' database. [3 marks]

Solution:

Concept:

- An attribute is a field or column describing one characteristic of an entity. In a payroll database, the fields identify employees and record the information needed to calculate their salaries.
- Gross salary consists of basic pay and allowances; net salary is gross salary less deductions. A unique employee code connects an employee's personal details with the payroll records.

Step 1: List the employee and employment attributes The employee details include employee code or employee ID, employee name, date of birth and address. Employment details include date of joining,

department, designation, pay scale or grade and basic pay. Employee ID identifies an employee uniquely, even when two employees have the same name. Bank account number may also be stored for salary payment.

Step 2: List the salary, deduction and payment attributes Salary-related attributes include the payroll month or pay period, number of days worked or paid, basic salary, dearness allowance (DA), house rent allowance (HRA), transport allowance and other admissible allowances. Deduction attributes include provident fund contribution, income tax deducted at source, loan or advance recovery and other authorised deductions. Gross salary, total deductions and net salary payable are the resulting payroll amounts:

$$\text{Gross salary} = \text{Basic salary} + \text{Allowances},$$

$$\text{Net salary} = \text{Gross salary} - \text{Total deductions}.$$

Step 3: Conclusion The various payroll attributes cover employee identification, personal and employment details, the pay period, basic pay and allowances, deductions, gross salary and net salary payable.

Quick Tip to Solve: Recall payroll fields in four groups: employee identity, employment details, earnings and deductions. Include the employee code and pay period to identify whose salary is being calculated and for which period.

31. Explain 'closing entry' and 'adjustment entry' with the help of examples. [4 marks]

Solution:

Concept:

- Closing entries transfer the balances of nominal accounts to the Trading Account or Profit and Loss Account at the end of the accounting period, so that these accounts begin the next period with nil balances.
- Adjustment entries record accrued, outstanding, prepaid or unearned items and other year-end adjustments so that income and expenses belong to the correct period and assets and liabilities are correctly stated.

Step 1: Explain a closing entry with an example A closing entry transfers a revenue or expense account's balance to the appropriate final account to determine the period's profit or loss. For example, suppose the Salaries Account has a debit balance of Rs 10,000 at year-end. Salaries are an indirect expense, so this balance is transferred to the Profit and Loss Account. Debiting Profit and Loss recognises the expense there; crediting Salaries closes its debit balance.

Journal: closing salaries

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Profit and Loss A/c Dr. To Salaries A/c (Being salaries transferred to the Profit and Loss Account)		10,000	10,000

Step 2: Explain an adjustment entry with an example An adjustment entry brings the books into

agreement with the accrual principle before final accounts are prepared. For a separate example, suppose salaries of Rs 2,000 for the current year remain unpaid and have not yet been recorded. The expense belongs to this year even though cash will be paid later. Salaries must therefore be debited, and Outstanding Salaries credited to recognise the liability.

Journal: recording outstanding salaries

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Salaries A/c Dr. To Outstanding Salaries A/c (Being unpaid salaries for the current year brought into account)		2,000	 2,000

This increases the year's salary expense and creates a liability of Rs 2,000. No cash or bank entry is made at this stage because the amount is still unpaid. Adjustments are recorded before the adjusted nominal account balances are closed.

Step 3: Conclusion Closing entries transfer nominal account balances to the final accounts and close them for the period. Adjustment entries recognise amounts relating to the correct accounting period, such as outstanding salaries, before final accounts are prepared.

Quick Tip to Solve: For salaries, first record any unpaid current-year amount by crediting Outstanding Salaries; then transfer the adjusted Salaries balance to Profit and Loss through the closing entry.

OR

31. Explain any four advantages expected by the user for paying high price for a chosen server database. [4 marks]

Solution:

Concept:

- A server database stores and processes data centrally and serves requests from several users or client computers over a network.
- Its higher price is justified by capabilities needed for large, shared and continuously used databases, rather than merely by storing a small personal file.

Step 1: Explain flexibility **Flexibility:** A server database can support different applications and ways of accessing data. Its interfaces allow the organisation to develop or customise applications around its own requirements. For example, accounts, payroll and inventory applications can access the central database through their respective authorised interfaces. Thus the user can adapt the system as business requirements change.

Step 2: Explain availability **Availability:** Users expect the database to remain accessible when required for business operations. Server database systems provide facilities for backup, recovery and maintaining service after failures. These help restore data and reduce interruption when a hardware or software problem occurs. Reliable access is especially valuable when several departments depend on the same accounting records.

Step 3: Explain scalability **Scalability:** The database can grow with the organisation. It can

accommodate an increasing volume of records, transactions and concurrent users by expanding or upgrading the supporting resources. Consequently, growth in branches, customers or business activity need not require replacing the entire database application with a new system.

Step 4: Explain performance **Performance:** A server database is designed to process substantial amounts of data and many simultaneous requests efficiently. It uses the processing power and memory of the server, along with database facilities such as indexing and query optimisation, to retrieve and update records quickly. Users therefore expect timely reports and responsive transaction processing even when several people work at once.

Step 5: Conclusion Four advantages expected from a costly server database are **flexibility, availability, scalability and performance**. Together, they support adaptable, reliable and efficient access as the business grows.

Quick Tip to Solve: Link each advantage to a distinct need: flexibility to changing applications, availability to access, scalability to growth, and performance to processing speed.

32. Tolga Ltd. has its offices in Delhi and Chandigarh. HRA for Delhi is ₹ 25,000 and for Chandigarh is ₹ 20,000. DA is calculated on Basic Pay (BP) as 16% for BP $\leq$ ₹ 22,000 and 12% for BP $\geq$ ₹ 23,000. Standard number of days are taken as 30 days per month.

Give the formulae and calculate the amount of Gross Salary on Excel for the following employees:

(i) Purnima is working in Delhi office. Her Basic Pay is ₹ 40,000. She has availed four days of leave without pay.

(ii) Prakash is working in Chandigarh office. His Basic Pay is ₹ 20,000. He did not take any leave.

[6 marks]

Solution:

Concept:

- Monthly gross salary is Basic Pay plus Dearness Allowance (DA) plus House Rent Allowance (HRA). DA is calculated on the employee's stated monthly Basic Pay at the applicable rate.
- With a standard month of 30 days, payable days equal $30 -$ leave without pay. The salary payable for those days is the full monthly gross salary multiplied by payable days$/30$.
- Excel's IF function selects an allowance from a condition. The salary calculation must first select the DA rate from monthly Basic Pay and then apply the attendance fraction.

Step 1: Arrange the input data in Excel Use row 1 for headings and rows 2 and 3 for the employees. The input cells can be arranged as follows:

Row	A: Employee	B: Office	C: Basic Pay (Rs)	D: Unpaid leave
2	Purnima	Delhi	40,000	4
3	Prakash	Chandigarh	20,000	0

Enter amounts as numbers and leave as the number of days. Let columns E, F, G, H and I respectively contain monthly HRA, monthly DA, payable days, monthly gross salary and gross salary payable.

Step 2: Enter the allowance and salary formulae Enter these formulae in row 2 and copy them down to row 3:

Cell	Excel formula
E2	`=IF(B2="Delhi",25000,20000)`
F2	`=IF(C2<=22000,C2*16%,C2*12%)`
G2	`=30-D2`
H2	`=SUM(C2,E2,F2)`
I2	`=ROUND(H2*G2/30,2)`

The HRA formula distinguishes the two offices in the question. The DA formula gives 16% to Prakash and 12% to Purnima; their Basic Pay amounts fall within the two stated ranges. Relative references change to row 3 when copied, so each employee's own inputs are used. Rounding is done only after the payable salary has been calculated.

Step 3: Calculate Purnima's gross salary payable Purnima works in Delhi, so her monthly HRA is Rs 25,000. Her monthly Basic Pay of Rs 40,000 is at least Rs 23,000, so the applicable DA rate is 12%.

$$\begin{aligned}\text{Monthly DA} &= 40,000 \times \frac{12}{100} = \text{Rs } 4,800,\\ \text{Monthly gross salary} &= 40,000 + 4,800 + 25,000\\ &= \text{Rs } 69,800,\\ \text{Payable days} &= 30 - 4 = 26.\end{aligned}$$

Apply the payable fraction to the monthly gross salary:

$$\text{Gross salary payable} = 69,800 \times \frac{26}{30} = \text{Rs } 60,493.33.$$

Equivalently, the four unpaid days reduce Rs 69,800 by $69,800 \times 4/30 = \text{Rs } 9,306.67$, after rounding to paise. Cell I2 can also use `=ROUND((40000+40000*12%+25000)*26/30,2)`.

Step 4: Calculate Prakash's gross salary payable Prakash works in Chandigarh, so his monthly HRA is Rs 20,000. His Basic Pay of Rs 20,000 is at most Rs 22,000, so the DA rate is 16%. Since he took no leave, all 30 days are payable.

$$\begin{aligned}\text{Monthly DA} &= 20,000 \times \frac{16}{100} = \text{Rs } 3,200,\\ \text{Monthly gross salary} &= 20,000 + 3,200 + 20,000\\ &= \text{Rs } 43,200,\\ \text{Gross salary payable} &= 43,200 \times \frac{30}{30}\\ &= \text{Rs } 43,200.\end{aligned}$$

Cell I3 can equivalently use `=ROUND((20000+20000*16%+20000)*30/30,2)`. There is no reduction for leave in this case.

Step 5: Conclusion Gross salary payable is **Rs 60,493.33 for Purnima** and **Rs 43,200 for Prakash**. Their full monthly gross salaries before adjustment for unpaid leave are Rs 69,800 and Rs 43,200 respectively.

Quick Tip to Solve: Select HRA by office and DA by monthly Basic Pay first; then multiply the combined monthly gross by payable days divided by 30. Round only the final salary.