# CBSE Class 12 Accountancy Question Paper 2018 with Solution PDF-Set 67-1 - Compartment

## 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 contains **two** parts **A** and **B**.

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

(iii) Part **B** has **two** options : Option – **I** Analysis of Financial Statements and Option – **II** Computerized Accounting.

(iv) Attempt only **one** option of Part **B**.

(v) All parts of a question should be attempted at one place.

## Part A (60 marks)

*(Accounting for Partnership Firms and Companies)*

**1. Vinay and Naman are partners sharing profit in the ratio of 4:1. Their capitals were Rs 90,000 and Rs 70,000 respectively. They admitted Prateek for 1/3 share in the profits. Prateek brought Rs 1,00,000 as his capital. Calculate the value of firm's goodwill.** [1 mark]

**Solution:**

**Concept:**

- Hidden goodwill is the excess of the implied total capital of the firm over the actual combined capitals of all partners after admission.
- The incoming partner's capital and profit share imply total capital: Implied capital = Incoming capital/Incoming share.

**Step 1:** Find the implied total capital Prateek contributes Rs 1,00,000 for a $1/3$ share. Therefore, the capitalised value of the whole firm is

$$\frac{\text{Rs } 1,00,000}{1/3} = \text{Rs } 3,00,000.$$

**Step 2:** Compare with the actual combined capitals Include the capitals of both existing partners and the new partner:

$$\text{Actual total capital} = 90,000 + 70,000 + 1,00,000 = \text{Rs } 2,60,000.$$

The excess of the implied capital over this amount represents goodwill. The old profit-sharing ratio is not needed for finding the firm's total goodwill.

**Step 3:** Conclusion The value of the firm's goodwill is $3,00,000 - 2,60,000 = \boxed{\text{Rs } 40,000}$.

**Quick Tip to Solve:** When finding hidden goodwill, include the incoming partner's capital in actual total capital before taking the difference.

**2. In which ratio do the remaining partners acquire the share of the deceased partner ?** [1 mark]

**Solution:**

**Concept:**

- On a partner's death, the surviving partners acquire the deceased partner's share of future profits.
- A partner's gain is the increase in profit share: Gain = New share − Old share.

**Step 1:** Identify the share being acquired The deceased partner's profit share becomes available to the remaining partners. It is allocated in the proportion in which they acquire that share under their agreement.

**Step 2:** Name the relevant ratio The ratio of the increases in the remaining partners' profit shares is

called the gaining ratio. If they continue to share profits in their old relative proportion, their gaining ratio equals that old proportion; in general, it depends on the agreed acquisition.

**Step 3:** Conclusion The remaining partners acquire the deceased partner's share in their **gaining ratio**.

**Quick Tip to Solve:** Use new share minus old share to identify each survivor's gain; the ratio of these gains is the required ratio.

**3. Give the journal entry for the treatment of partner's loan appearing on the asset side of the Balance Sheet, on dissolution of a partnership firm.** [1 mark]

**Solution:**

**Concept:**

- A partner's loan on the asset side is a loan given by the firm to that partner; it is an amount recoverable from the partner.
- On dissolution, this loan is transferred to the debit of the concerned partner's Capital Account, thereby reducing the amount payable to that partner.

**Step 1:** Identify the accounts affected The loan asset must be closed by crediting the concerned Partner's Loan Account. Debit that partner's Capital Account with the same amount. This is different from a loan advanced by a partner to the firm, which is a liability.

**Step 2:** Record the adjustment Journal of the Firm

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Concerned Partner's Capital A/c Dr.<br>To Concerned Partner's Loan A/c<br>(Being loan given to the partner transferred to that partner's Capital Account on dissolution) | | X | <br>X |

Here $X$ is the loan amount appearing on the asset side; no numerical amount is supplied in the question.

**Step 3:** Conclusion Debit the concerned Partner's Capital Account and credit the concerned Partner's Loan Account with the loan amount.

**Quick Tip to Solve:** First check which side contains the loan: an asset-side partner's loan is recoverable from the partner and is debited to capital.

**4. Aman, Yatin and Uma were partners and were sharing profits and losses in the ratio of 5 : 3 : 2. Uma retired and her share was taken over by Aman and Yatin in 5 : 3 ratio. Calculate the gaining ratio of Aman and Yatin.** [1 mark]

**Solution:**

**Concept:**

- The gaining ratio is the ratio in which continuing partners acquire the retiring partner's profit share.
- For each continuing partner, Gain = Share acquired from the retiring partner.

**Step 1:** Identify Uma's share The old ratio is $5 : 3 : 2$, so Uma's share is $2/10$. The question expressly states that Aman and Yatin take over this share in the ratio $5 : 3$.

**Step 2:** Calculate each gain Aman acquires

$$\frac{2}{10} \times \frac{5}{8} = \frac{1}{8}.$$

Yatin acquires

$$\frac{2}{10} \times \frac{3}{8} = \frac{3}{40}.$$

Their combined gain is $1/8 + 3/40 = 1/5$, equal to Uma's share; hence the entire retiring share has been allocated.

**Step 3:** Conclusion The gaining ratio of Aman and Yatin is

$$\frac{1}{8} : \frac{3}{40} = 5 : 3.$$

**Quick Tip to Solve:** When the question directly gives the ratio in which the retiring share is taken over, that is already the gaining ratio.

**5. Give two items which may appear on the debit side of a Partner's Current Account.** [1 mark]

**Solution:**

**Concept:**

- Under the fixed capital method, routine adjustments relating to partners are recorded in their Current Accounts.
- Amounts withdrawn by or charged to a partner are debited to that partner's Current Account; entitlements such as salary or share of profit are credited.

**Step 1:** Identify withdrawals Drawings are amounts taken by a partner from the firm for personal use. They reduce the balance due to the partner and therefore appear on the debit side of the Current Account.

**Step 2:** Identify the charge on drawings Interest on drawings is a charge against the partner for using the firm's funds personally. It is also debited to the Current Account. It must be distinguished from

interest on capital, which is an entitlement credited to the partner.

**Step 3:** Conclusion Two items are **drawings** and **interest on drawings**.

**Quick Tip to Solve:** For a Current Account, personal withdrawals and charges to the partner go on the debit side; rewards and profit shares go on the credit side.

**6. What is meant by 'Private Placement of Shares' ?** [1 mark]

**Solution:**

**Concept:**

- Private placement is an issue of securities to a selected group of persons identified by the company.
- It differs from a public offer, which invites the general public to subscribe to the company's securities.

**Step 1:** Identify the persons approached In a private placement, the company approaches selected persons or investors for subscription to its shares. The offer is directed to that identified group instead of being open to the public at large.

**Step 2:** Explain the nature of the issue The selected investors subscribe to shares offered to them by the company. Thus, the defining feature is the restricted, selected group receiving the offer; it is not a general invitation to all members of the public.

**Step 3:** Conclusion **Private placement of shares** means the issue of shares by a company to a selected group of persons or investors instead of offering them to the public.

**Quick Tip to Solve:** In the definition, state both features: shares are offered to selected persons and the offer is not made to the general public.

**7. Amit and Kartik are partners sharing profits and losses equally. They decided to admit Saurabh for an equal share in the profits. For this purpose the goodwill of the firm was to be valued at four years' purchase of super profits.**
**The Balance Sheet of the firm on Saurabh's admission was as follows :**

| Liabilities | Amount (Rs) | Assets | Amount (Rs) |
|---|---|---|---|
| Capitals : | | Machinery | 75,000 |
| Amit 90,000 | | Furniture | 15,000 |
| Kartik 50,000 | 1,40,000 | Stock | 30,000 |
| Reserve | 20,000 | Sundry Debtors | 20,000 |
| Loan | 25,000 | Cash | 50,000 |
| Sundry Creditors | 5,000 | | |
| | 1,90,000 | | 1,90,000 |

**The normal rate of return is 12% per annum. Average profit of the firm for the last four years was Rs 30,000. Calculate Saurabh's share of goodwill.** [3 marks]

**Solution:**

**Concept:**

- Capital employed is the owners' funds invested in the business: total assets less outside liabilities. Here it includes the partners' capitals and reserve.
- Normal profit is capital employed multiplied by the normal rate of return. Super profit is average profit less normal profit; goodwill equals super profit multiplied by the years' purchase.

**Step 1:** Calculate capital employed **Working Notes**
The loan and sundry creditors are outside liabilities. The reserve belongs to the partners and is therefore included in capital employed.

$$\begin{aligned}\text{Capital employed} &= \text{Total assets} - \text{Outside liabilities}\\ &= 1,90,000 - (25,000 + 5,000)\\ &= \text{Rs } 1,60,000.\end{aligned}$$

As a check, capitals plus reserve also give $90,000 + 50,000 + 20,000 = \text{Rs } 1,60,000$.

**Step 2:** Determine normal profit and super profit Apply the normal return of $12\%$ to capital employed, rather than to total assets, since outside funds do not form the partners' investment.

$$\text{Normal profit} = 1,60,000 \times \frac{12}{100} = \text{Rs } 19,200,$$
$$\text{Super profit} = 30,000 - 19,200 = \text{Rs } 10,800.$$

The average profit is already given, so it need not be divided by four again.

**Step 3:** Value goodwill and allocate Saurabh's share Four years' purchase means multiplying the annual super profit by four:

$$\text{Goodwill of firm} = 10,800 \times 4 = \text{Rs } 43,200.$$

Amit, Kartik and Saurabh are to share profits equally. There are now three partners, so Saurabh's share is $1/3$.

$$\text{Saurabh's share of goodwill} = 43,200 \times \frac{1}{3} = \text{Rs } 14,400.$$

**Step 4:** Conclusion The firm's goodwill is Rs 43,200, and Saurabh's one-third share of goodwill is $\boxed{\text{Rs } 14,400}$.

**Quick Tip to Solve:** Include reserves but exclude the loan and creditors from capital employed; after valuing the firm's goodwill, take one-third for the incoming equal partner.

**8. Navnirman Ltd. issued 4,00,000 equity shares of Rs 10 each at par. The amount per share was payable as follows :**

**Rs 3 on application; Rs 2 on allotment; Rs 2 on first call and Rs 3 on final call. The issue was fully subscribed and the shares were allotted fully to all the applicants. All calls were made. Mahi, a shareholder holding 6,000 shares paid the final call money along with the first call. Shrey holding 700 shares did not pay the first call on the due date. Shrey paid the first call along with the final call. The accountant of the company had correctly passed the entries till receipt of allotment money. After that the following entries were left incomplete by him. Complete these entries.**

**Journal of Navnirman Ltd.**

| Date | Particulars | F | Dr. Amount (Rs) | Cr. Amount (Rs) |
|---|---|---|---|---|
| | Equity Share first call A/c. Dr.<br>To .....<br>(Being first call due on 4,00,000 shares @ Rs 2 per share) | | 8,00,000 | <br><br>8,00,000 |
| | Bank A/c Dr.<br>..... Dr.<br>To Equity Share first call A/c<br>To .....<br>(.....) | | .....<br>.....<br> | <br><br>.....<br>..... |
| | Equity Share second and final call A/c. Dr.<br>To Equity Share Capital A/c<br>(Being final call due on 4,00,000 shares @ Rs 3 per share) | | ..... | <br>..... |
| | Bank A/c. Dr.<br>..... Dr.<br>To Equity Share second and final call A/c.<br>To .....<br>(.....) | | .....<br>..... | <br><br>.....<br>..... |

[3 marks]

**Solution:**

**Concept:**

- A call due is debited to the relevant share call account and credited to Equity Share Capital. Money received before its call becomes due is credited to Calls in Advance, not to share capital.
- An unpaid call is debited to Calls in Arrears. When the arrears are collected, that account is credited; when an advance becomes due, Calls in Advance is debited to adjust it against the call.

**Step 1:** Calculate the first-call receipts **Working Notes**

The first call due on all shares is $4,00,000 \times 2 =$ Rs $8,00,000$. Shrey's unpaid first call is $700 \times 2 =$ Rs $1,400$. Mahi pays the final call in advance: $6,000 \times 3 =$ Rs $18,000$.

$$\text{Bank receipt} = 8,00,000 - 1,400 + 18,000 = \text{Rs } 8,16,600.$$

**Step 2:** Complete the first-call journal entries **Journal of Navnirman Ltd.**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Equity Share First Call A/c Dr.<br>To Equity Share Capital A/c<br>(Being first call due on 4,00,000 shares at Rs 2 per share) | | 8,00,000 | <br>8,00,000 |
| | Bank A/c Dr.<br>Calls in Arrears A/c Dr.<br>To Equity Share First Call A/c<br>To Calls in Advance A/c<br>(Being first call received except on Shrey's 700 shares, and Mahi's final call on 6,000 shares received in advance) | | 8,16,600<br>1,400 | <br><br>8,00,000<br>18,000 |

**Step 3:** Calculate the final-call receipts The second and final call due is $4,00,000 \times 3 =$ Rs $12,00,000$. Mahi's advance of Rs 18,000 is now adjusted, while Shrey pays his Rs 1,400 first-call arrears along with the final call.

$$\text{Bank receipt} = 12,00,000 - 18,000 + 1,400 = \text{Rs } 11,83,400.$$

Thus the advance is not collected twice, and recovery of the arrears does not increase the amount of final call due.

**Step 4:** Complete the final-call journal entries **Journal of Navnirman Ltd. (continued)**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Equity Share Second and Final Call A/c Dr.<br>To Equity Share Capital A/c<br>(Being final call due on 4,00,000 shares at Rs 3 per share) | | 12,00,000 | <br>12,00,000 |
| | Bank A/c Dr.<br>Calls in Advance A/c Dr.<br>To Equity Share Second and Final Call A/c<br>To Calls in Arrears A/c<br>(Being final call received after adjusting Mahi's advance, together with Shrey's first-call arrears) | | 11,83,400<br>18,000 | <br><br>12,00,000<br>1,400 |

**Step 5:** Conclusion The bank receipts are Rs 8,16,600 at the first call and Rs 11,83,400 at the final call. Calls in Advance of Rs 18,000 and Calls in Arrears of Rs 1,400 are both fully cleared by the final receipt entry.

**Quick Tip to Solve:** In the first receipt, subtract arrears and add advances; at the final receipt, subtract the advance already held and add arrears now recovered.

**9. Janta Ltd. had an authorized capital of 2,00,000 equity shares of Rs 10 each. The company offered to the public for subscription 1,00,000 shares. Applications were received for 97,000 shares. The amount was payable as follows on application was Rs 2 per share, Rs 4 was payable each on allotment and first and final call. A shareholder holding 600 shares failed to pay the allotment money. His shares were forfeited. The company did not make the first and final call.**

**Present the share capital in the Balance Sheet of the company as per Schedule III of the Companies Act, 2013. Also prepare Notes to accounts.** [3 marks]

**Solution:**

**Concept:**

- Share capital appears under Shareholders' Funds within Equity and Liabilities. The note distinguishes authorised, issued and subscribed capital; uncalled capital is not included in paid-up capital.
- Forfeited shares are excluded from subscribed capital. The amount already received on those shares is separately added as forfeited shares (amount originally paid up), until their reissue.

**Step 1:** Determine the paid-up amount and forfeiture balance **Working Notes**

Only application and allotment have been called, so the called-up amount per share is $2 + 4 = \text{Rs } 6$. The Rs 4 first and final call is still uncalled.

$$\text{Continuing subscribed shares} = 97,000 - 600 = 96,400,$$

$$\text{Paid-up capital on these shares} = 96,400 \times 6 = \text{Rs } 5,78,400,$$

$$\text{Amount paid on forfeited shares} = 600 \times 2 = \text{Rs } 1,200.$$

The unpaid allotment of $600 \times 4 = \text{Rs } 2,400$ related to shares already forfeited; it is not shown as an outstanding deduction from the remaining subscribed shares.

**Step 2:** Present the balance sheet extract **Janta Ltd. — Balance Sheet (Extract)**

| Particulars | Note No. | Amount (Rs) |
|---|---|---|
| **I. EQUITY AND LIABILITIES** | | |
| **1. Shareholders' Funds** | | |
| (a) Share Capital | 1 | 5,79,600 |

**Step 3:** Prepare the share capital note **Notes to Accounts — Note 1: Share Capital**

| Particulars | Amount (Rs) |
|---|---|
| **Authorised capital** | |
| 2,00,000 equity shares of Rs 10 each | 20,00,000 |
| **Issued capital** | |
| 1,00,000 equity shares of Rs 10 each | 10,00,000 |
| **Subscribed capital** | |
| Subscribed but not fully paid up: | |
| 96,400 equity shares of Rs 10 each, Rs 6 called up and paid up | 5,78,400 |
| Add: Forfeited shares (amount originally paid up on 600 shares) | 1,200 |
| **Total Share Capital** | **5,79,600** |

The face value remains Rs 10 per share even though only Rs 6 has been called and paid on each continuing share. Therefore these shares are disclosed as subscribed but not fully paid up.

**Step 4:** Conclusion Share Capital shown under Shareholders' Funds is $\boxed{\text{Rs } 5,79,600}$, comprising Rs 5,78,400 on continuing shares and Rs 1,200 originally paid on forfeited shares.

**Quick Tip to Solve:** Remove forfeited shares from the subscribed share count, retain their application receipts separately, and exclude the Rs 4 per share call that was never made.

**10. Ajay, Bhawna and Shreya were partners sharing profits in the ratio 2:2:1. On July 1, 2017 Shreya died. The books of accounts are closed on March 31 every year. Sales for the year 2016-17 amounted to Rs 5,00,000 and that from 1st April to 30th June 2017 were Rs 1,40,000. The rate of profit during the past three years had been 10% on sales. Since Shreya's legal representative was her only son, who is specially abled, it was decided that the profit for the purpose of settling Shreya's account is to be calculated as 20% on sales.**

**(a) Calculate Shreya's share of profits till the date of her death and pass necessary journal entry for the same.**

**(b) Also, state the value highlighted in the above para.** [3 marks]

**Solution:**

**Concept:**

- A deceased partner is entitled to the agreed share of profit earned from the last accounting date up to the date of death. When sales are given for this period, estimated profit equals those sales multiplied by the agreed profit rate.
- The deceased partner's share equals estimated profit multiplied by the old profit-sharing fraction. Credit this amount to the deceased partner's Capital Account and debit Profit and Loss Suspense Account because the year's final profit has not yet been determined.

**Step 1:** Calculate the profit for the period up to death **Working Notes:** The relevant period is 1 April to 30 June 2017, immediately before Shreya's death on 1 July. Sales for this period are Rs 1,40,000. The partners have expressly agreed to use 20% of sales for settling her account, so the historical rate

of 10% is replaced for this calculation.

$$\text{Estimated profit} = 1,40,000 \times \frac{20}{100} = \text{Rs } 28,000.$$

The previous year's sales of Rs 5,00,000 are not needed because the actual sales for the relevant period are already available. There is no further multiplication by three-twelfths: the sales figure itself covers only the three-month period.

**Step 2:** Find and record Shreya's share The old ratio is $2:2:1$, so Shreya's fraction is $1/(2+2+1) = 1/5$.

$$\text{Shreya's share} = 28,000 \times \frac{1}{5} = \text{Rs } 5,600.$$

**Journal of the Firm**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| 1 July 2017 | Profit and Loss Suspense A/c Dr.<br>To Shreya's Capital A/c<br>(Being Shreya's share of profit up to death credited at the agreed rate of 20% on sales) | | 5,600 | 5,600 |

The credit increases the amount due to Shreya's estate; the debit records the interim profit allocation pending determination of the year's actual profit.

**Step 3:** State the value reflected by the decision The decision reflects compassion, empathy and social responsibility towards a person with special needs. By agreeing to a higher profit rate for settling Shreya's account, the continuing partners show concern for the financial support of her specially abled son, who is her only legal representative.

**Step 4:** Conclusion Shreya's share of profit till death is $\boxed{\text{Rs } 5,600}$. Debit Profit and Loss Suspense Account and credit Shreya's Capital Account by Rs 5,600. The value highlighted is compassion and concern for a person with special needs.

**Quick Tip to Solve:** Use the expressly agreed 20% on the actual April–June sales, then multiply by Shreya's one-fifth share; do not apply a second time fraction.

**11. Rajiv and Sanjeev were partners in a firm. Their partnership deed provided that the profits shall be divided as follows :**

**First Rs 20,000 to Rajeev and the balance in the ratio of 4 : 1. The profits for the year ended 31st March, 2017 were Rs 60,000 which had been distributed among the partners. On 1-4-2016 their capitals were Rajeev Rs 90,000 and Sanjeev Rs 80,000. Interest on capital was to be provided @ 6% p.a. While preparing the profit and loss appropriation interest on capital was omitted.**

**Pass necessary rectifying entry for the same. Show your workings clearly.** [4 marks]

**Solution:**

**Concept:**

- Interest on capital is an appropriation of profit. It must be allowed at the agreed rate before distributing the remaining profit according to the partnership deed.

- A past adjustment compares the total amount each partner should have received with the amount already credited. Debit the partner who received an excess and credit the partner who received a shortfall; the net debits and credits must agree.

**Step 1:** Reconstruct the profit distribution already made **Working Notes:** Without interest on capital, the entire profit of Rs 60,000 was distributed. Rajiv first received Rs 20,000 and the balance of Rs 40,000 was shared in the ratio $4:1$.

$$\text{Rajiv's original credit} = 20,000 + 40,000 \times \frac{4}{5} = \text{Rs } 52,000,$$
$$\text{Sanjeev's original credit} = 40,000 \times \frac{1}{5} = \text{Rs } 8,000.$$

These credits total Rs 60,000 and are the amounts against which the corrected entitlements must be compared.

**Step 2:** Calculate interest and the corrected profit shares The opening capitals were employed for the full year. Interest on Rajiv's capital is $90,000 \times 6/100 = \text{Rs } 5,400$; interest on Sanjeev's capital is $80,000 \times 6/100 = \text{Rs } 4,800$. Total interest is Rs 10,200.

$$\text{Profit after interest} = 60,000 - 10,200 = \text{Rs } 49,800,$$
$$\text{Balance after Rajiv's first share} = 49,800 - 20,000 = \text{Rs } 29,800.$$

The remaining Rs 29,800 is shared in the ratio $4:1$. Rajiv's share is Rs 23,840 and Sanjeev's share is Rs 5,960. The priority allocation of Rs 20,000 to Rajiv remains unchanged; only the residual profit available for ratio distribution decreases.

**Step 3:** Compare the corrected entitlements with the credits **Adjustment Working**

| Particulars | Rajiv (Rs) | Sanjeev (Rs) |
|---|---|---|
| Interest on capital | 5,400 | 4,800 |
| First allocation under the deed | 20,000 | – |
| Share of residual profit | 23,840 | 5,960 |
| Correct total entitlement | 49,240 | 10,760 |
| Amount already credited | 52,000 | 8,000 |
| Adjustment required | 2,760 (Dr.) | 2,760 (Cr.) |

The corrected entitlements total $49,240 + 10,760 = \text{Rs } 60,000$, the same profit already distributed. Rajiv was overcredited by Rs 2,760, while Sanjeev was undercredited by the same amount. A single transfer between their capital accounts therefore corrects the omission without changing total partners' funds.

**Step 4:** Pass the rectifying journal entry **Journal of the Firm**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| 31 Mar. 2017 | Rajiv's Capital A/c Dr. | | 2,760 | |
| | To Sanjeev's Capital A/c | | | 2,760 |
| | (Being adjustment for omitted interest on capital at 6% p.a. and the consequent correction of profit distribution) | | | |

**Step 5:** Conclusion Debit Rajiv's Capital Account and credit Sanjeev's Capital Account by $\boxed{\text{Rs } 2,760}$. The corrected total entitlements are Rs 49,240 for Rajiv and Rs 10,760 for Sanjeev.

**Quick Tip to Solve:** Keep Rajiv's first Rs 20,000 unchanged. Compare each partner's interest entitlement with their 4:1 share of the Rs 10,200 reduction in residual profit.

**12. Venus Ltd., is a real estate company. To discharge its corporate Social Responsibility, it decided to construct a night shelter for the homeless. The company took over assets of Rs 10,00,000 and liabilities of Rs 1,80,000 of Cayns Ltd. for Rs 7,60,000. Venus Ltd.. issued 9% Debentures of Rs 100 each at a discount of 5% in full satisfaction of the purchase consideration in favour of Cayns Ltd.**

**Pass necessary journal entries in the books of Venus Ltd. for the above transactions. Also identify the value observed by Venus Ltd.** [4 marks]

**Solution:**

**Concept:**

- Assets and liabilities taken over are recorded at their agreed values. Net assets in excess of purchase consideration give rise to Capital Reserve.
- Debentures issued at a discount are credited at face value; the vendor is debited with the purchase consideration and the difference is debited to Discount on Issue of Debentures.

**Step 1:** Calculate the capital reserve and debentures issued **Working Notes** The net assets acquired from Cayns Ltd. are assets less liabilities:

$$\text{Net assets} = 10,00,000 - 1,80,000 = \text{Rs } 8,20,000.$$

Since the purchase consideration is lower than the net assets, the difference is a capital profit:

$$\text{Capital Reserve} = 8,20,000 - 7,60,000 = \text{Rs } 60,000.$$

Each debenture of face value Rs 100 is issued for $100 - 5 = \text{Rs } 95$. Therefore,

$$\text{Number issued} = \frac{7,60,000}{95} = 8,000,$$
$$\text{Face value issued} = 8,000 \times 100 = \text{Rs } 8,00,000,$$
$$\text{Discount on issue} = 8,000 \times 5 = \text{Rs } 40,000.$$

The 9% rate identifies the debentures' interest rate; it does not determine their issue price.

**Step 2:** Record the purchase of the business **Journal of Venus Ltd.**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Business Purchase A/c Dr.<br>To Cayns Ltd.<br>(Being business purchased from Cayns Ltd.) | | 7,60,000 | <br>7,60,000 |
| | Sundry Assets A/c Dr.<br>To Sundry Liabilities A/c<br>To Business Purchase A/c<br>To Capital Reserve A/c<br>(Being assets and liabilities taken over and capital reserve recognised) | | 10,00,000 | <br>1,80,000<br>7,60,000<br>60,000 |

Business Purchase is cleared by the second entry. The assets debit of Rs 10,00,000 equals the total credits of Rs 10,00,000.

**Step 3:** Discharge the consideration and identify the value **Journal of Venus Ltd. (continued)**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Cayns Ltd. Dr. | | 7,60,000 | |
| | Discount on Issue of Debentures A/c Dr. | | 40,000 | |
| | To 9% Debentures A/c | | | 8,00,000 |
| | (Being 8,000 debentures of Rs 100 each issued at 5% discount in full settlement) | | | |

Cayns Ltd.'s account is now settled. Venus Ltd. observes **social responsibility and concern for the homeless**: constructing a night shelter supports the welfare and dignity of disadvantaged people.

**Step 4:** Conclusion Venus Ltd. records Capital Reserve of Rs 60,000 and issues 8,000 debentures, having face value Rs 8,00,000 and discount Rs 40,000. Its decision reflects social responsibility and care for the homeless.

**Quick Tip to Solve:** Divide the purchase consideration by Rs 95, the issue price per debenture, rather than by its Rs 100 face value; compare net assets separately with the consideration.

**13. Boots Ltd. issued Rs 6,00,000, 8% Debentures at a discount of 6%. The debentures were redeemable in four equal annual instalments. Pass necessary journal entries for issue of debentures and prepare 'Discount on issue of debentures Account' for four years. Show your workings clearly.**

[6 marks]

**Solution:**

**Concept:**

- Discount on issue equals the face value of debentures multiplied by the discount rate. It is debited separately, while Debentures A/c is credited with the full face value.
- When debentures are redeemed in annual instalments, discount is written off in the ratio of the debentures outstanding during the respective years. With equal instalments, the annual amount written off decreases.

**Step 1:** Calculate the proceeds and record the issue **Working Notes**

$$\text{Discount} = 6,00,000 \times \frac{6}{100} = \text{Rs } 36,000,$$
$$\text{Cash received} = 6,00,000 - 36,000 = \text{Rs } 5,64,000.$$

The interest rate of 8% does not affect the issue proceeds or the allocation of discount. The entry for issue is:

**Journal of Boots Ltd.**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Bank A/c Dr. | | 5,64,000 | |
| | Discount on Issue of Debentures A/c Dr. | | 36,000 | |
| | To 8% Debentures A/c | | | 6,00,000 |
| | (Being debentures issued at a discount of 6%) | | | |

The two debits together equal the face value credited to Debentures A/c.

**Step 2:** Allocate the discount over the four years Each annual redemption is $6,00,000/4 =$

Rs $1,50,000$, at the end of the year. Thus the amounts outstanding during the four years are Rs 6,00,000, Rs 4,50,000, Rs 3,00,000 and Rs 1,50,000. Their ratio is

$$6,00,000 : 4,50,000 : 3,00,000 : 1,50,000 = 4 : 3 : 2 : 1.$$

The sum of the ratio terms is 10. Multiply Rs 36,000 by each year's share:

| Year | Debentures outstanding (Rs) | Share | Discount written off (Rs) |
|---|---|---|---|
| 1 | 6,00,000 | $4/10$ | 14,400 |
| 2 | 4,50,000 | $3/10$ | 10,800 |
| 3 | 3,00,000 | $2/10$ | 7,200 |
| 4 | 1,50,000 | $1/10$ | 3,600 |
| Total | 15,00,000 | 1 | 36,000 |

The expense is transferred to the Statement of Profit and Loss each year. An equal write-off of Rs 9,000 each year would ignore the decreasing debenture balance.

**Step 3:** Prepare the discount account for all four years **Discount on Issue of Debentures Account**

| Dr. | Particulars | Amount (Rs) | Particulars | Amount (Rs) | Cr. |
|---|---|---|---|---|---|
| | **Year 1** | | **Year 1** | | |
| | To 8% Debentures A/c | 36,000 | By Statement of Profit and Loss | 14,400 | |
| | | | By Balance c/d | 21,600 | |
| | Total | 36,000 | Total | 36,000 | |
| | **Year 2** | | **Year 2** | | |
| | To Balance b/d | 21,600 | By Statement of Profit and Loss | 10,800 | |
| | | | By Balance c/d | 10,800 | |
| | Total | 21,600 | Total | 21,600 | |
| | **Year 3** | | **Year 3** | | |
| | To Balance b/d | 10,800 | By Statement of Profit and Loss | 7,200 | |
| | | | By Balance c/d | 3,600 | |
| | Total | 10,800 | Total | 10,800 | |
| | **Year 4** | | **Year 4** | | |
| | To Balance b/d | 3,600 | By Statement of Profit and Loss | 3,600 | |
| | Total | 3,600 | Total | 3,600 | |

The debit balance carried forward represents discount still to be written off. After the fourth year's transfer, the full Rs 36,000 has been charged and no balance remains.

**Step 4:** Conclusion The issue brings in Rs 5,64,000 and creates a discount debit of Rs 36,000. Discount is written off in the ratio $4 : 3 : 2 : 1$: Rs 14,400, Rs 10,800, Rs 7,200 and Rs 3,600 in Years 1 to 4 respectively.

**Quick Tip to Solve:** For four equal annual redemptions at year-end, write the opening balances as 4, 3, 2 and 1 instalments; divide the discount in that ratio and check that the write-offs total Rs 36,000.

**14. Girija and Ganesh were partners in a firm sharing, profits and losses in the ratio of 2 : 3. On 31st March, 2017 their Balance Sheet was as follows :**

| Liabilities | Amount (Rs) | Assets | Amount (Rs) |
|---|---|---|---|
| Creditors | 80,000 | Cash at Bank | 20,000 |
| Bank Overdraft | 50,000 | Debtors 55,000 | |
| Girija's Brother's loan | 77,000 | Less: Provision for doubtful debts 2,000 | 53,000 |
| Ganesh's loan | 28,000 | Stock | 78,000 |
| Investment Fluctuation Fund | 15,000 | Investments | 89,000 |
| Capitals : | | Buildings | 2,50,000 |
| Girija 1,50,000 | | Profit and Loss A/c. | 10,000 |
| Ganesh 1,00,000 | 2,50,000 | | |
| | 5,00,000 | | 5,00,000 |

**On the above date the firm was dissolved. The assets were realized and the liabilities were paid off as follows :**

**(a) Debtors of Rs 6,000 were proved bad.**

**(b) Girija agreed to pay off her brother's Loan.**

**(c) One of the creditors for Rs 10,000 was paid only Rs 3,000 in full settlement of his account.**

**(d) Buildings were auctioned for Rs 1,80,000 and the auctioneer's commission amounted to Rs 8,000.**

**(e) Ganesh took over part of stock at Rs 4,000 (being 20% less than the book value). Balance of the Stock was handed over to the remaining creditors in full settlement of their account.**

**(f) Investments realized Rs 9,000 less.**

**(g) Realisation expenses amounted to Rs 17,000 and were paid by Ganesh.**

**Prepare Realisation Account, Partners' Capital Accounts and Bank Account.** [6 marks]

**Solution:**

**Concept:**

- Transfer non-cash assets at gross book values and external liabilities to Realisation Account. Transfer provisions and the Investment Fluctuation Fund to its credit; the partners' loan and capitals are settled separately.
- A liability assumed by a partner credits that partner's capital, whereas an asset taken over debits it. Expenses paid personally by a partner credit the partner's capital and debit Realisation Account.
- Distribute accumulated losses and the realisation loss in the old profit-sharing ratio, Girija : Ganesh $= 2 : 3$. Close the capital accounts through Bank after settling Ganesh's loan.

**Step 1:** Working Notes: determine realisations and settlements Debtors realise $55,000 - 6,000 =$ Rs $49,000$. Investments realise $89,000 - 9,000 =$ Rs $80,000$. Buildings yield Rs 1,80,000; the Rs 8,000 auction commission is shown separately as an expense. Ganesh takes stock for Rs 4,000, whose book value is $4,000/0.80 =$ Rs $5,000$. The remaining stock, book value $78,000 - 5,000 =$ Rs $73,000$, settles the remaining creditors of $80,000 - 10,000 =$ Rs $70,000$.

Since both stock and creditors are transferred to Realisation Account, no further entry is needed for stock handed directly to creditors. Only Rs 3,000 is paid to the other creditor. Girija's assumption of her brother's Rs 77,000 loan is credited to her capital. Ganesh's payment of Rs 17,000 expenses is

credited to his capital. Neither transaction passes through the firm's Bank Account.

**Step 2:** Prepare Realisation Account **Realisation Account**

| Dr. Particulars | Rs | Particulars Cr. | Rs |
|---|---|---|---|
| To Debtors | 55,000 | By Provision for doubtful debts | 2,000 |
| To Stock | 78,000 | By Creditors | 80,000 |
| To Investments | 89,000 | By Bank overdraft | 50,000 |
| To Buildings | 2,50,000 | By Girija's brother's loan | 77,000 |
| To Bank: creditors | 3,000 | By Investment Fluctuation Fund | 15,000 |
| To Bank: overdraft | 50,000 | By Bank: debtors | 49,000 |
| To Bank: auction commission | 8,000 | By Bank: buildings | 1,80,000 |
| To Girija's Capital: loan assumed | 77,000 | By Bank: investments | 80,000 |
| To Ganesh's Capital: expenses | 17,000 | By Ganesh's Capital: stock | 4,000 |
| | | By Loss transferred to capitals: | |
| | | Girija $(90,000 \times 2/5)$ | 36,000 |
| | | Ganesh $(90,000 \times 3/5)$ | 54,000 |
| **Total** | **6,27,000** | **Total** | **6,27,000** |

Before transferring the loss, debit entries total Rs 6,27,000 and credit entries total Rs 5,37,000. Therefore, realisation loss is Rs 90,000. The Rs 15,000 Investment Fluctuation Fund is transferred here with the investment-related provision, so it is not credited again to the partners' capitals.

**Step 3:** Prepare Partners' Capital Accounts The existing Profit and Loss debit balance of Rs 10,000 is written off in the ratio $2:3$: Girija Rs 4,000 and Ganesh Rs 6,000. It is an accumulated loss, not an asset to be realised.

**Partners' Capital Accounts**

| Dr. Particulars | Girija Rs | Ganesh Rs | Particulars Cr. | Girija Rs | Ganesh Rs |
|---|---|---|---|---|---|
| To Profit and Loss | 4,000 | 6,000 | By Balance b/d | 1,50,000 | 1,00,000 |
| To Realisation: stock | — | 4,000 | By Realisation: brother's loan | 77,000 | — |
| To Realisation: loss | 36,000 | 54,000 | By Realisation: expenses | — | 17,000 |
| To Bank: final settlement | 1,87,000 | 53,000 | | | |
| **Total** | **2,27,000** | **1,17,000** | **Total** | **2,27,000** | **1,17,000** |

Girija's amount payable is $1,50,000 + 77,000 - 4,000 - 36,000 =$ Rs $1,87,000$. Ganesh's amount payable is $1,00,000 + 17,000 - 6,000 - 4,000 - 54,000 =$ Rs $53,000$. Both accounts close with nil balances after final payment.

**Step 4:** Prepare Bank Account and verify closure **Bank Account**

| Dr. Particulars | Rs | Particulars Cr. | Rs |
|---|---|---|---|
| To Balance b/d | 20,000 | By Realisation: creditors | 3,000 |
| To Realisation: debtors | 49,000 | By Realisation: bank overdraft | 50,000 |
| To Realisation: buildings | 1,80,000 | By Realisation: auction commission | 8,000 |
| To Realisation: investments | 80,000 | By Ganesh's Loan | 28,000 |
| | | By Girija's Capital | 1,87,000 |
| | | By Ganesh's Capital | 53,000 |
| **Total** | **3,29,000** | **Total** | **3,29,000** |

Ganesh's loan is paid separately before the final capital settlements. The opening positive bank balance and bank overdraft are separate balances in the printed Balance Sheet; the overdraft is therefore settled explicitly. Total receipts equal total payments, leaving no balance c/d after dissolution.

**Step 5:** Conclusion Realisation loss is $\boxed{\text{Rs } 90,000}$, shared by Girija Rs 36,000 and Ganesh Rs 54,000. Final capital payments are $\boxed{\text{Girija: Rs } 1,87,000;\ \text{Ganesh: Rs } 53,000}$. Bank totals Rs 3,29,000 on each side and closes with a nil balance.

**Quick Tip to Solve:** Keep Ganesh's Rs 28,000 loan out of Realisation Account. Stock given to creditors needs no second entry once both balances have been transferred; partner takeovers and personally paid expenses do need capital entries.

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**15. Parth, Raman and Zaisha are partners in a firm manufacturing furniture. They have been sharing profits and losses in the ratio of 5 : 3 : 2. From 1st April, 2017 they decided to share future profits and losses in the ratio of 2 : 5 : 3. Their Balance Sheet showed a debit balance of Rs 4,000 in Profit & Loss Account; balance of Rs 36,000 in General Reserve and a Balance of Rs 12,000 in Workmen's Compensation Reserve. It was agreed that :**

**(i) The goodwill of the firm be valued at Rs 76,000.**

**(ii) The Stock (book value of Rs 40,000) was to be depreciated by 8%.**

**(iii) Creditors amounting to Rs 900 were not likely to be claimed.**

**(iv) Claim on account of Workmen's Compensation amounted to Rs 20,000.**

**(v) Investments (book value Rs 38,000) were revalued at Rs 40,000.**

**The firm manufactures comfortable rocking chairs for donating to 'Kareforyou' an Old Age Home every year. Taking cognizance of the rising pollution levels in the country, the firm has decided to transfer 10% of the profits every year to 'Green Fund' primarily used for environment friendly activities starting from the year 2017-18.**

**(a) Pass necessary Journal entries for the above.**

**(b) Also state any two values highlighted in the above case.** [6 marks]

**Solution:**

**Concept:**

- On a change in profit-sharing ratio, gaining partners compensate sacrificing partners for goodwill. Sacrifice equals old share minus new share; gain equals new share minus old share.
- Accumulated reserves and losses belong to the old partners in the old ratio. Revaluation gains or losses also arise before the change and are transferred in that ratio.
- Workmen's Compensation Reserve first meets the compensation claim. The excess claim over the reserve is a revaluation loss; a future environmental appropriation is recorded when the relevant profit is determined.

**Step 1:** Working Notes for part (a): calculate goodwill compensation and revaluation The old ratio is $5 : 3 : 2$ and the new ratio is $2 : 5 : 3$. Parth sacrifices $5/10 - 2/10 = 3/10$; Raman gains $5/10 - 3/10 = 2/10$; Zaisha gains $3/10 - 2/10 = 1/10$. Thus Raman compensates Parth by

$76,000 \times 2/10 =$ Rs $15,200$, and Zaisha by $76,000 \times 1/10 =$ Rs $7,600$. Parth receives Rs 22,800 in total; goodwill is adjusted directly through capitals.

Stock falls by $40,000 \times 8\% =$ Rs $3,200$. Investments increase by $40,000 - 38,000 =$ Rs $2,000$. Creditors released give a gain of Rs 900. The excess compensation claim is $20,000 - 12,000 =$ Rs $8,000$.

$$\text{Revaluation loss} = 3,200 + 8,000 - 900 - 2,000 = \text{Rs } 8,300.$$

In the old ratio $5:3:2$, this loss is Parth Rs 4,150, Raman Rs 2,490 and Zaisha Rs 1,660. General Reserve of Rs 36,000 is distributed as Rs 18,000, Rs 10,800 and Rs 7,200; the Profit and Loss debit balance of Rs 4,000 is written off as Rs 2,000, Rs 1,200 and Rs 800 respectively.

**Step 2:** Record goodwill and accumulated balances **Journal of Parth, Raman and Zaisha (1st April, 2017)**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Raman's Capital A/c Dr.<br>Zaisha's Capital A/c Dr.<br>To Parth's Capital A/c<br>(Being goodwill compensation from gaining partners to sacrificing partner) | | 15,200<br>7,600 | <br><br>22,800 |
| | General Reserve A/c Dr.<br>To Parth's Capital A/c<br>To Raman's Capital A/c<br>To Zaisha's Capital A/c<br>(Being General Reserve distributed in the old ratio of 5:3:2) | | 36,000 | <br>18,000<br>10,800<br>7,200 |
| | Parth's Capital A/c Dr.<br>Raman's Capital A/c Dr.<br>Zaisha's Capital A/c Dr.<br>To Profit and Loss A/c<br>(Being accumulated loss written off in the old ratio of 5:3:2) | | 2,000<br>1,200<br>800 | <br><br><br>4,000 |

The direct goodwill adjustment credits only the sacrificing partner and debits only the gaining partners. The reserve and accumulated loss are settled using the old shares because they arose before the new arrangement.

**Step 3:** Record asset changes and the compensation claim **Journal (continued; 1st April, 2017)**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Revaluation A/c Dr.<br>To Stock A/c<br>(Being stock depreciated by 8 percent) | | 3,200 | <br>3,200 |
| | Creditors A/c Dr.<br>To Revaluation A/c<br>(Being unclaimed creditors written back) | | 900 | <br>900 |
| | Workmen's Compensation Reserve A/c Dr.<br>Revaluation A/c Dr.<br>To Workmen's Compensation Claim A/c<br>(Being compensation claim recognised, reserve utilised and shortfall charged to revaluation) | | 12,000<br>8,000 | <br><br>20,000 |

| | | | | |
|---|---|---|---|---|
| | Investments A/c Dr.<br>To Revaluation A/c<br>(Being investments increased to Rs 40,000) | | 2,000 | 2,000 |

The entire Rs 12,000 compensation reserve is absorbed by the claim. There is no surplus reserve to distribute. The liability recognised is the full Rs 20,000; only the uncovered Rs 8,000 affects revaluation.

**Step 4:** Transfer the revaluation loss **Journal (continued; 1st April, 2017)**

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Parth's Capital A/c Dr.<br>Raman's Capital A/c Dr.<br>Zaisha's Capital A/c Dr.<br>To Revaluation A/c<br>(Being revaluation loss transferred to partners in the old ratio of 5:3:2) | | 4,150<br>2,490<br>1,660 | <br><br><br>8,300 |

Revaluation Account now closes: its debit charges of Rs 11,200 equal the gains of Rs 2,900 plus the Rs 8,300 transferred loss. Every entry has equal debits and credits. The new ratio applies to future profits after these adjustments.

**Step 5:** Answer part (b) and distinguish the future Green Fund policy **Care and compassion for senior citizens:** donating comfortable rocking chairs to the old age home shows concern for elderly people's comfort and welfare.

**Environmental responsibility:** setting aside 10% of future profits for environment-friendly activities shows commitment to reducing pollution and protecting the environment.

The Green Fund policy starts with profits of 2017–18. No amount of that year's profit or cost of donated chairs is supplied, so no numerical entry for these future activities is possible on 1st April, 2017. When that year's profit is determined, 10% is transferred by debiting Profit and Loss Appropriation Account and crediting Green Fund Account; it is not a charge to the revaluation of existing assets and liabilities.

**Step 6:** Conclusion Raman and Zaisha compensate Parth for goodwill by Rs 15,200 and Rs 7,600 respectively. Revaluation loss is Rs 8,300, shared as Rs 4,150, Rs 2,490 and Rs 1,660 in the old ratio. The values highlighted are care for senior citizens and environmental responsibility.

**Quick Tip to Solve:** Use the old ratio 5:3:2 for reserves, accumulated losses and revaluation. Use only the gains 2/10 and 1/10 for goodwill compensation; the compensation reserve absorbs Rs 12,000 before any loss is charged.

**16. Manvet Ltd. invited applications for issuing 10,00,000 equity shares of Rs 10 each payable as follows :**

**On application and allotment Rs 4 per share (including premium Rs 1)**

**On first call Rs 4 per share,**

**On second and final call Rs 3 per share.**

**Applications for 15,00,000 shares were received and pro-rata allotment was made to all the applicants. Excess application money was adjusted on the sums due on calls. A shareholder who had applied for 6,000 shares did not pay the first, and the second and final call. His shares were forfeited. 90% of the forfeited shares were reissued at Rs 8 per share fully paid up.**

**Pass necessary journal entries for the above transactions in the books of the company.** [8 marks]

**Solution:**

**Concept:**

- In pro-rata allotment, shares allotted equal shares applied for multiplied by the allotment ratio. Excess application money is adjusted against the instalment specified in the question.
- On forfeiture, debit Share Capital with called-up capital; credit the unpaid instalments and Share Forfeiture with capital already received. Securities premium already received is not reversed.
- Reissue discount cannot exceed the forfeited amount attributable to the reissued shares. Transfer only the resulting surplus on reissued shares to Capital Reserve.

**Step 1:** Working Notes: compute allotment and excess money The allotment ratio is

$$\frac{10,00,000}{15,00,000} = \frac{2}{3}.$$

Application and allotment money received is $15,00,000 \times$ Rs $4 =$ Rs $60,00,000$. The amount due is Rs 40,00,000, comprising share capital of Rs 30,00,000 and securities premium of Rs 10,00,000. Therefore Rs 20,00,000 is transferred to Share First Call as advance adjustment. The defaulting applicant receives $6,000 \times 2/3 = 4,000$ shares. He pays Rs 24,000 with application; Rs 16,000 is required on application and allotment, leaving Rs 8,000 adjustable against his first call.

**Step 2:** Working Notes: determine unpaid calls and forfeiture First call due on the defaulting shares is $4,000 \times$ Rs $4 =$ Rs $16,000$. After adjusting the excess of Rs 8,000, only Rs 8,000 remains unpaid. Thus first-call cash received is

$$\text{Rs } 40,00,000 - \text{Rs } 20,00,000 - \text{Rs } 8,000 = \text{Rs } 19,92,000.$$

The second and final call unpaid is $4,000 \times$ Rs $3 =$ Rs $12,000$; cash received is Rs 29,88,000. Capital received on the defaulting shares is Rs 24,000 less premium Rs 4,000, namely Rs 20,000. The full premium has already been received, so it is retained in Securities Premium Reserve. The unpaid call balances are left in their respective call accounts until forfeiture.

**Step 3:** Record application and allotment Journal of Manvet Ltd.

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Bank A/c Dr.<br>To Share Application and Allotment A/c<br>*(Being application money received on 15,00,000 shares)* | | 60,00,000 | <br>60,00,000 |
| | Share Application and Allotment A/c Dr.<br>To Share Capital A/c<br>To Securities Premium Reserve A/c<br>To Share First Call A/c<br>*(Being allotment made and excess adjusted against the first call)* | | 60,00,000 | <br>30,00,000<br>10,00,000<br>20,00,000 |

**Step 4:** Record calls becoming due and cash received Journal of Manvet Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share First Call A/c Dr.<br>To Share Capital A/c<br>*(Being first call due on 10,00,000 shares)* | | 40,00,000 | <br>40,00,000 |
| | Bank A/c Dr.<br>To Share First Call A/c<br>*(Being first-call cash received after excess adjustment, except Rs 8,000)* | | 19,92,000 | <br>19,92,000 |
| | Share Second and Final Call A/c Dr.<br>To Share Capital A/c<br>*(Being second and final call due)* | | 30,00,000 | <br>30,00,000 |
| | Bank A/c Dr.<br>To Share Second and Final Call A/c<br>*(Being second and final call received except Rs 12,000)* | | 29,88,000 | <br>29,88,000 |

**Step 5:** Record forfeiture and reissue Forfeited shares reissued are $4,000 \times 90\% = 3,600$. Cash received is $3,600 \times$ Rs $8 =$ Rs $28,800$, and the discount is $3,600 \times$ Rs $2 =$ Rs $7,200$.
Journal of Manvet Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share Capital A/c Dr.<br>To Share First Call A/c<br>To Share Second and Final Call A/c<br>To Share Forfeiture A/c<br>*(Being 4,000 fully called shares forfeited for non-payment of calls)* | | 40,000 | <br>8,000<br>12,000<br>20,000 |
| | Bank A/c Dr.<br>Share Forfeiture A/c Dr.<br>To Share Capital A/c<br>*(Being 3,600 shares reissued at Rs 8 each as fully paid)* | | 28,800<br>7,200 | <br><br>36,000 |

**Step 6:** Transfer the realised surplus to Capital Reserve The forfeited amount attributable to the 3,600 reissued shares is Rs $20,000 \times 3,600/4,000 =$ Rs $18,000$. Deducting reissue discount gives Rs 10,800. The remaining Rs 2,000 relates to 400 unreissued shares and stays in Share Forfeiture.

Journal of Manvet Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share Forfeiture A/c Dr. | | 10,800 | |
| | To Capital Reserve A/c | | | 10,800 |
| | *(Being surplus on reissued shares transferred to Capital Reserve)* | | | |

**Step 7:** Conclusion The company forfeits 4,000 shares and reissues 3,600 shares. Capital Reserve is credited with Rs 10,800; Share Forfeiture retains Rs 2,000 for the 400 shares not yet reissued.

**Quick Tip to Solve:** Adjust the Rs 8,000 excess before finding first-call arrears; transfer only 90% of the forfeited capital, less reissue discount, to Capital Reserve.

OR

**16. X Ltd. invited applications for issuing 5,00,000 equity shares of Rs 10 each at par. The amount per share was payable as follows :**

**On Application Rs 1 per share**

**On Allotment Rs 2 per share**

**On First call Rs 3 per share**

**On Second and Final call - Balance.**

**Applications for 8,00,000 shares were received. Applications for 1,00,000 shares were rejected and pro-rata allotment was made to the remaining applicants. Excess money received with applications was adjusted towards sums due on allotment. All calls were made. Ashok a shareholder holding 5000 shares failed to pay the allotment and the call money. Mohan, a shareholder who had applied for 7000 shares, failed to pay the first and second and final call. Shares of Ashok and Mohan were forfeited after the second and final call. Of the forfeited shares 8000 shares were re-issued at Rs 12 per share fully paid up. The re-issued shares included all the forfeited shares of Ashok.**

**Pass necessary journal entries for the above transactions in the books of X Ltd.** [8 marks]

**Solution:**

**Concept:**

- In pro-rata allotment, shares allotted equal shares applied for multiplied by the allotment ratio. Excess application money is adjusted against the instalment specified in the question.
- On forfeiture, debit Share Capital with called-up capital; credit the unpaid instalments and Share Forfeiture with capital already received. Securities premium already received is not reversed.
- Reissue discount cannot exceed the forfeited amount attributable to the reissued shares. Transfer only the resulting surplus on reissued shares to Capital Reserve.

**Step 1:** Working Notes: calculate the pro-rata adjustment After rejecting applications for 1,00,000 shares, allotment is made among applicants for 7,00,000 shares. The allotment ratio is

$$\frac{5,00,000}{7,00,000} = \frac{5}{7}.$$

Out of application receipts of Rs 8,00,000, Rs 1,00,000 is refunded, Rs 5,00,000 is transferred to Share Capital and Rs 2,00,000 is adjusted against allotment. The second and final call per share is Rs $10$ − Rs $1$ − Rs $2$ − Rs $3$ = Rs $4$. Ashok holds 5,000 shares, so he applied for $5,000 \times 7/5 = 7,000$ shares. His application payment of Rs 7,000 includes Rs 2,000 excess, leaving allotment arrears of Rs $10,000$ − Rs $2,000$ = Rs $8,000$. Mohan also receives $7,000 \times 5/7 = 5,000$ shares, but pays the net allotment of Rs 8,000.

**Step 2:** Working Notes: calculate receipts and forfeited capital Allotment cash received is Rs $10,00,000$ − Rs $2,00,000$ − Rs $8,000$ = Rs $7,92,000$. Both shareholders fail to pay calls on a total of 10,000 shares. First-call arrears are Rs 30,000, so first-call cash is Rs 14,70,000. Final-call arrears are Rs 40,000, so final-call cash is Rs 19,60,000. Ashok has paid Rs 7,000 towards capital, including his application excess adjusted against allotment. Mohan has paid Rs $7,000$ + Rs $8,000$ = Rs $15,000$. Thus Share Forfeiture is credited with Rs 22,000. These figures also reconcile with called-up capital of Rs 1,00,000 less total arrears of Rs 78,000.

**Step 3:** Record application receipts, refund and allotment Journal of X Ltd.

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Bank A/c Dr.<br>To Share Application A/c<br>*(Being application money received on 8,00,000 shares)* | | 8,00,000 | <br>8,00,000 |
| | Share Application A/c Dr.<br>To Share Capital A/c<br>To Share Allotment A/c<br>To Bank A/c<br>*(Being application money adjusted and rejected applications refunded)* | | 8,00,000 | <br>5,00,000<br>2,00,000<br>1,00,000 |
| | Share Allotment A/c Dr.<br>To Share Capital A/c<br>*(Being allotment due on 5,00,000 shares)* | | 10,00,000 | <br>10,00,000 |
| | Bank A/c Dr.<br>To Share Allotment A/c<br>*(Being net allotment received except Ashok's Rs 8,000)* | | 7,92,000 | <br>7,92,000 |

**Step 4:** Record the first and final calls Journal of X Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share First Call A/c Dr.<br>To Share Capital A/c<br>*(Being first call due at Rs 3 per share)* | | 15,00,000 | <br>15,00,000 |
| | Bank A/c Dr.<br>To Share First Call A/c<br>*(Being first call received except Rs 30,000 from Ashok and Mohan)* | | 14,70,000 | <br>14,70,000 |
| | Share Second and Final Call A/c Dr.<br>To Share Capital A/c<br>*(Being final call due at Rs 4 per share)* | | 20,00,000 | <br>20,00,000 |
| | Bank A/c Dr.<br>To Share Second and Final Call A/c<br>*(Being final call received except Rs 40,000 from Ashok and Mohan)* | | 19,60,000 | <br>19,60,000 |

**Step 5:** Record forfeiture and reissue of shares The combined forfeiture entry clears all three unpaid instalments. Of the 8,000 shares reissued, 5,000 belong to Ashok and 3,000 to Mohan. Reissue receipts are $8,000 \times$ Rs $12 =$ Rs $96,000$, including a premium of $8,000 \times$ Rs $2 =$ Rs $16,000$.

Journal of X Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share Capital A/c Dr. | | 1,00,000 | |
| | To Share Allotment A/c | | | 8,000 |
| | To Share First Call A/c | | | 30,000 |
| | To Share Second and Final Call A/c | | | 40,000 |
| | To Share Forfeiture A/c | | | 22,000 |
| | *(Being 10,000 shares of Ashok and Mohan forfeited after the final call)* | | | |
| | Bank A/c Dr. | | 96,000 | |
| | To Share Capital A/c | | | 80,000 |
| | To Securities Premium Reserve A/c | | | 16,000 |
| | *(Being 8,000 forfeited shares reissued at Rs 12 fully paid)* | | | |

**Step 6:** Transfer the forfeiture surplus on reissued shares There is no reissue discount. The amount transferable is all Rs 7,000 forfeited from Ashok plus the proportion attributable to 3,000 of Mohan's 5,000 shares:

$$\text{Rs } 7,000 + \text{Rs } 15,000 \times \frac{3,000}{5,000} = \text{Rs } 16,000.$$

The balance Rs $22,000 -$ Rs $16,000 =$ Rs $6,000$ remains in Share Forfeiture for Mohan's 2,000 unreissued shares. The premium earned on reissue is kept separately in Securities Premium Reserve.

Journal of X Ltd. (continued)

| Date | Particulars | L.F. | Dr. (Rs) | Cr. (Rs) |
|---|---|---|---|---|
| | Share Forfeiture A/c Dr. | | 16,000 | |
| | To Capital Reserve A/c | | | 16,000 |
| | *(Being forfeiture surplus on the 8,000 reissued shares transferred)* | | | |

**Step 7:** Conclusion The forfeiture credit is Rs 22,000. Reissue results in securities premium of Rs 16,000 and a Capital Reserve transfer of Rs 16,000. Share Forfeiture retains Rs 6,000 for Mohan's 2,000 unreissued shares.

**Quick Tip to Solve:** Ashok holds 5,000 shares whereas Mohan applied for 7,000; both were allotted 5,000. For Capital Reserve, include all Ashok's paid capital and only three-fifths of Mohan's.

**17. On 31st March 2017, the Balance Sheet of Abhir and Divya, who were sharing profits in the ratio of 3 : 1 was as follows :**
**Balance Sheet of Abhir and Divya as on 31st March 2017**

| Liabilities | Amount (Rs) | Assets | Amount (Rs) |
|---|---|---|---|
| Creditors | 2,20,000 | Cash at Bank | 1,40,000 |
| Employees' Provident Fund | 1,00,000 | Debtors 6,50,000 | |
| Investment Fluctuation Fund | 1,00,000 | Less Provision for bad debts 50,000 | 6,00,000 |
| General Reserve | 1,20,000 | Stock | 3,00,000 |
| Capitals : | | Investments (market value Rs 4,40,000) | 5,00,000 |
| Abhir : 6,00,000 | | | |
| Divya : 4,00,000 | 10,00,000 | | |
| | 15,40,000 | | 15,40,000 |

**They decided to admit Vibhor on April 1, 2017 for 1/5th share.**

**(a) Vibhor shall bring Rs 80,000 as his share of goodwill premium.**

**(b) Stock was overvalued by Rs 20,000.**

**(c) A debtors whose dues of Rs 5,000 were written off as bad debts, paid Rs 4,000 in full settlement.**

**(d) Two months salary @ Rs 6,000 per month was outstanding.**

**(e) Vibhor was to bring in Capital to the extent of 1/5th of the total capital of the new firm.**

**Prepare Revaluation A/c, Partners' Capital A/c and the Balance Sheet of the reconstituted firm.**

[8 marks]

**Solution:**

**Concept:**

- Revaluation gains and losses before admission belong to the old partners in their old profit-sharing ratio, here Abhir : Divya $= 3:1$.
- Apply the investment fluctuation fund against the fall in investment value; distribute only the surplus fund to the old partners. Distribute the general reserve in the old ratio as well.
- Goodwill premium compensates sacrificing partners. In the absence of a different agreement, Abhir and Divya sacrifice in their old ratio. The new partner's capital is his agreed fraction of the total adjusted capital.

**Step 1:** Work out reserves, goodwill and revaluation adjustments **Working Notes**

Investments fall from Rs 5,00,000 to Rs 4,40,000, a reduction of Rs 60,000. Debit the Investment Fluctuation Fund for Rs 1,00,000, credit Investments for Rs 60,000 and credit the old partners' capital accounts for the remaining Rs 40,000: Abhir Rs 30,000 and Divya Rs 10,000. Consequently, this investment decline does not also enter Revaluation Account. General Reserve of Rs 1,20,000 is distributed as Rs 90,000 and Rs 30,000.

Vibhor brings goodwill premium of Rs 80,000, credited to Abhir and Divya in $3:1$, namely Rs 60,000 and Rs 20,000. No withdrawal of this premium is stated, so it remains in the business.

Stock decreases by Rs 20,000. Salary outstanding is $2 \times$ Rs $6,000 =$ Rs $12,000$. The Rs 4,000 recovered from a debtor whose debt was already written off increases bank and is a revaluation gain; it does not

increase the existing debtors balance. The unrecovered Rs 1,000 is not a fresh bad debt because the entire Rs 5,000 had already been written off.

$$\text{Revaluation loss} = 20,000 + 12,000 - 4,000 = \text{Rs } 28,000.$$

Abhir bears Rs 21,000 and Divya bears Rs 7,000.

**Step 2:** Prepare the Revaluation Account **Revaluation Account as on 1st April 2017**

| Dr. Particulars | Rs | Cr. Particulars | Rs |
|---|---|---|---|
| To Stock A/c | 20,000 | By Bank A/c (bad debts recovered) | 4,000 |
| To Outstanding Salary A/c | 12,000 | By Abhir's Capital A/c (loss) | 21,000 |
| | | By Divya's Capital A/c (loss) | 7,000 |
| **Total** | **32,000** | **Total** | **32,000** |

**Step 3:** Determine Vibhor's capital contribution The adjusted capitals of the old partners, after all reserves, goodwill and revaluation entries, are:

$$\begin{aligned} \text{Abhir} &= 6,00,000 + 90,000 + 30,000 + 60,000 - 21,000 \\ &= \text{Rs } 7,59,000, \\ \text{Divya} &= 4,00,000 + 30,000 + 10,000 + 20,000 - 7,000 \\ &= \text{Rs } 4,53,000. \end{aligned}$$

Their combined capital is Rs 12,12,000, which represents $4/5$ of the total new capital. If Vibhor's capital is $x$, then

$$x = \frac{12,12,000 + x}{5}, \qquad 4x = 12,12,000, \qquad x = \text{Rs } 3,03,000.$$

Total capital is therefore Rs 15,15,000; the contribution is exactly one-fifth of this amount.

**Step 4:** Prepare the partners' Capital Accounts **Partners' Capital Accounts**

| Dr. Particulars | Abhir Rs | Divya Rs | Vibhor Rs | Cr. Particulars | Abhir Rs | Divya Rs | Vibhor Rs |
|---|---|---|---|---|---|---|---|
| To Revaluation A/c | 21,000 | 7,000 | – | By Balance b/d | 6,00,000 | 4,00,000 | – |
| To Balance c/d | 7,59,000 | 4,53,000 | 3,03,000 | By General Reserve | 90,000 | 30,000 | – |
| | | | | By Investment Fluctuation Fund | 30,000 | 10,000 | – |
| | | | | By Premium for Goodwill | 60,000 | 20,000 | – |
| | | | | By Bank A/c | – | – | 3,03,000 |
| **Total** | **7,80,000** | **4,60,000** | **3,03,000** | **Total** | **7,80,000** | **4,60,000** | **3,03,000** |

**Step 5:** Prepare the reconstituted firm's Balance Sheet Bank balance becomes

$$\text{Rs } (1,40,000 + 4,000 + 80,000 + 3,03,000) = \text{Rs } 5,27,000.$$

The Employees' Provident Fund remains a liability; it is not a free reserve available for distribution.

Debtors and their existing provision remain unchanged.

**Balance Sheet of Abhir, Divya and Vibhor as on 1st April 2017**

| Liabilities | Amount (Rs) | Assets | Amount (Rs) |
|---|---|---|---|
| Creditors | 2,20,000 | Cash at Bank | 5,27,000 |
| Employees' Provident Fund | 1,00,000 | Debtors: Rs 6,50,000 | |
| Outstanding Salary | 12,000 | Less: Provision: Rs 50,000 | 6,00,000 |
| Partners' Capitals: | | Stock | 2,80,000 |
| Abhir | 7,59,000 | Investments | 4,40,000 |
| Divya | 4,53,000 | | |
| Vibhor | 3,03,000 | | |
| **Total** | **18,47,000** | **Total** | **18,47,000** |

**Step 6:** Conclusion Revaluation loss is Rs 28,000. Closing capitals are Abhir Rs 7,59,000, Divya Rs 4,53,000 and Vibhor Rs 3,03,000. The reconstituted Balance Sheet totals Rs 18,47,000 on each side.

**Quick Tip to Solve:** First absorb the Rs 60,000 investment loss in the fluctuation fund. For Vibhor's one-fifth share, divide the old partners' adjusted combined capital by four, not five.

OR

**17. Kavya, Manya and Navita were partners sharing profits as 50%, 30% and 20% respectively. On march 31, 2016, their Balance Sheet stood as follows :**

**Balance Sheet of Kavya, Manya and Navita as at March 31, 2016.**

| Liabilities | Amount (Rs) | Assets | Amount (Rs) |
|---|---|---|---|
| Creditors | 1,40,000 | Fixed Assets | 8,90,000 |
| General Reserve | 1,00,000 | Investments | 2,00,000 |
| Capitals : | | Stock | 1,30,000 |
| Kavya 6,00,000 | | Debtors 4,00,000 | |
| Manya 5,00,000 | | Less - Provision for bad debts 30,000 | 3,70,000 |
| Navita 4,00,000 | 15,00,000 | Bank | 1,50,000 |
| | 17,40,000 | | 17,40,000 |

**On the above date, Kavya retired and Manya and Navita agreed to continue the business on the following terms :**

**(a) Firm's goodwill was valued at Rs 60,000 and it was decided to adjust Kavya's share of goodwill in the capital accounts of continuing partners.**

**(b) There was a claim for workmen's compensation to the extent of Rs 4,000.**

**(c) Investments were revalued at Rs 2,13,000.**

**(d) Fixed Assets were to be depreciated by 10%.**

**(e) Kavya was to be paid Rs 20,000 through a bank draft and the balance was transferred to her loan account which will be paid in two equal annual instalments together with interest @ 10% p.a.**

**Prepare Revaluation A/c, Partner's Capital accounts and Kavya's Loan Account till it is finally paid.**

[8 marks]

**Solution:**

**Concept:**

- Revaluation profit or loss and accumulated reserves belong to all old partners in their old ratio. Here Kavya : Manya : Navita is $50 : 30 : 20 = 5 : 3 : 2$.
- The continuing partners compensate the retiring partner for her goodwill share in their gaining ratio. With no revised sharing agreement, Manya and Navita continue in $3 : 2$, their relative old ratio.
- Transfer the retiring partner's unpaid capital balance to her loan account. Interest is calculated on the outstanding loan principal; equal principal instalments produce decreasing total annual payments.

**Step 1:** Work out the goodwill and reserve adjustments **Working Notes**

Kavya retires on 31st March 2016. The General Reserve of Rs 1,00,000 is credited to Kavya, Manya and Navita as Rs 50,000, Rs 30,000 and Rs 20,000 respectively.

Manya and Navita's new shares are $3/5$ and $2/5$. Their gains are

$$\text{Manya} : \frac{3}{5} - \frac{3}{10} = \frac{3}{10}, \qquad \text{Navita} : \frac{2}{5} - \frac{2}{10} = \frac{2}{10}.$$

Thus the gaining ratio is $3 : 2$. Kavya's share of goodwill is Rs $60,000 \times 1/2 =$ Rs $30,000$. Debit Manya's Capital Account with Rs 18,000 and Navita's Capital Account with Rs 12,000, crediting Kavya's Capital Account with Rs 30,000. This directly adjusts goodwill through capitals without raising a goodwill asset.

**Step 2:** Prepare the Revaluation Account Investments increase by Rs $(2,13,000 - 2,00,000) =$ Rs $13,000$. Depreciation of fixed assets is $10\% \times$ Rs $8,90,000 =$ Rs $89,000$. Recognise the workmen's compensation claim of Rs 4,000 as a liability and a revaluation loss, since no corresponding reserve is shown.

$$\text{Net loss} = 89,000 + 4,000 - 13,000 = \text{Rs } 80,000.$$

Distribute this loss in $5 : 3 : 2$: Kavya Rs 40,000, Manya Rs 24,000 and Navita Rs 16,000.

**Revaluation Account as on 31st March 2016**

| Dr. Particulars | Rs | Cr. Particulars | Rs |
|---|---|---|---|
| To Fixed Assets A/c | 89,000 | By Investments A/c | 13,000 |
| To Workmen's Compensation Claim A/c | 4,000 | By Kavya's Capital A/c (loss) | 40,000 |
| | | By Manya's Capital A/c (loss) | 24,000 |
| | | By Navita's Capital A/c (loss) | 16,000 |
| **Total** | **93,000** | **Total** | **93,000** |

**Step 3:** Prepare the partners' Capital Accounts Kavya's amount due is

$$\text{Rs } (6,00,000 + 50,000 + 30,000 - 40,000) = \text{Rs } 6,40,000.$$

After the immediate payment of Rs 20,000 by bank draft, Rs 6,20,000 becomes her loan. The

continuing partners' closing capitals are

$$\text{Manya} = 5,00,000 + 30,000 - 24,000 - 18,000 = \text{Rs } 4,88,000,$$
$$\text{Navita} = 4,00,000 + 20,000 - 16,000 - 12,000 = \text{Rs } 3,92,000.$$

**Partners' Capital Accounts**

| **Dr.** Particulars | **Kavya** Rs | **Manya** Rs | **Navita** Rs | **Cr.** Particulars | **Kavya** Rs | **Manya** Rs | **Navita** Rs |
|---|---|---|---|---|---|---|---|
| To Revaluation A/c | 40,000 | 24,000 | 16,000 | By Balance b/d | 6,00,000 | 5,00,000 | 4,00,000 |
| To Kavya's Capital A/c | – | 18,000 | 12,000 | By General Reserve | 50,000 | 30,000 | 20,000 |
| To Bank A/c | 20,000 | – | – | By Manya's Capital A/c | 18,000 | – | – |
| To Kavya's Loan A/c | 6,20,000 | – | – | By Navita's Capital A/c | 12,000 | – | – |
| To Balance c/d | – | 4,88,000 | 3,92,000 | | | | |
| **Total** | **6,80,000** | **5,30,000** | **4,20,000** | **Total** | **6,80,000** | **5,30,000** | **4,20,000** |

**Step 4:** Calculate the annual loan repayments The principal is repayable in two equal annual instalments of Rs $6,20,000/2 = \text{Rs } 3,10,000$, with interest paid in addition. The first instalment falls due on 31st March 2017 and the second on 31st March 2018.

$$\text{First year's interest} = 6,20,000 \times 10\% = \text{Rs } 62,000,$$
$$\text{First payment} = 3,10,000 + 62,000 = \text{Rs } 3,72,000,$$
$$\text{Second year's interest} = 3,10,000 \times 10\% = \text{Rs } 31,000,$$
$$\text{Second payment} = 3,10,000 + 31,000 = \text{Rs } 3,41,000.$$

Credit interest to Kavya's Loan Account before debiting each payment. The second year's interest uses only the principal still unpaid after the first payment.

**Step 5:** Prepare Kavya's Loan Account until final settlement **Kavya's Loan Account**

| **Dr.** Date | Particulars | Rs | **Cr.** Date | Particulars | Rs |
|---|---|---|---|---|---|
| 31-03-2017 | To Bank A/c | 3,72,000 | 31-03-2016 | By Kavya's Capital A/c | 6,20,000 |
| 31-03-2017 | To Balance c/d | 3,10,000 | 31-03-2017 | By Interest on Loan A/c | 62,000 |
| | **Total** | **6,82,000** | | **Total** | **6,82,000** |
| 31-03-2018 | To Bank A/c | 3,41,000 | 01-04-2017 | By Balance b/d | 3,10,000 |
| | | | 31-03-2018 | By Interest on Loan A/c | 31,000 |
| | **Total** | **3,41,000** | | **Total** | **3,41,000** |

The account is fully settled on 31st March 2018; no balance is carried forward after the final payment.

**Step 6:** Conclusion Revaluation loss is Rs 80,000. Kavya is entitled to Rs 6,40,000, comprising Rs 20,000 paid immediately and a loan of Rs 6,20,000. Her loan is discharged by payments of Rs 3,72,000 on 31st March 2017 and Rs 3,41,000 on 31st March 2018. Manya's and Navita's closing capitals are Rs 4,88,000 and Rs 3,92,000.

**Quick Tip to Solve:** Split Kavya's loan principal equally first, then add 10 percent interest on the opening principal each year; do not divide principal plus both years' interest equally.

## Part B (20 marks)

*OPTION – I*

*Analysis of Financial Statements*

**18. 'Loans and advances granted' by a company will be considered, as which type of activity while preparing Cash Flow Statement.** [1 mark]

**Solution:**

**Concept:**

- Investing activities include cash advances and loans made to third parties by a non-financial company.
- The classification follows the nature of the transaction: granting a loan creates a recoverable financial asset, whereas taking a loan raises finance.

**Step 1:** Identify the direction of the loan The company grants the loans and advances, so it pays money to another party and acquires a right to receive repayment. It is the lender, not the borrower.

**Step 2:** Apply the cash-flow classification Such lending is an investing activity and the amount advanced is an investing cash outflow. Loans granted by a financial enterprise in its ordinary lending business would instead be operating activities; no such enterprise is specified here.

**Step 3:** Conclusion Loans and advances granted are classified as **investing activities**.

**Quick Tip to Solve:** Distinguish loans granted from loans taken: ordinary company lending is investing, while borrowing is financing.

**19. State the primary objective of preparing the Cash Flow Statement.** [1 mark]

**Solution:**

**Concept:**

- A Cash Flow Statement reports cash inflows and outflows during an accounting period under operating, investing and financing activities.
- Cash and cash equivalents at the end of the period differ from the opening balance by the net cash flow for that period.

**Step 1:** Identify the information provided The statement shows the sources from which cash and cash equivalents were received and the uses to which they were applied during the period.

**Step 2:** Relate the flows to the change in cash By classifying these receipts and payments, it explains the change between the opening and closing balances of cash and cash equivalents. This gives users information about actual cash movements, which can differ from accrual-based profit.

**Step 3:** Conclusion The primary objective is to provide information about the cash inflows and outflows during a period and thereby explain the change in cash and cash equivalents.

**Quick Tip to Solve:** For the primary objective, state sources and uses of cash during the period, then connect them to the opening-to-closing change.

**20(a). Under which major headings and sub-heading will the following items be shown in the Balance Sheet of a company as per Schedule III of Companies Act, 2013 ?**

**20(a)(i). Provision for employee benefits.** [4 marks total]

**Solution:**

**Concept:**

- A provision is a liability whose amount or timing is uncertain; a provision for employee benefits represents an obligation to employees.
- Schedule III groups provisions by their expected settlement period. The conventional classification of a provision for long-term employee benefits is under Non-current liabilities, as Long-term provisions.

**Step 1:** Identify the major heading Provision for employee benefits is shown under **Non-current liabilities** in the usual long-term classification used for this item. It is an obligation of the company, so it is not included in shareholders' funds or shown as an asset.

**Step 2:** Identify the sub-heading The sub-heading is **Long-term provisions**. If an employee-benefit obligation is specifically due for settlement in the short term, that portion is classified under Current liabilities as Short-term provisions. No such short-term portion is separately specified in the question.

**Step 3:** Conclusion Major heading: **Non-current liabilities**; sub-heading: **Long-term provisions**.

**Quick Tip to Solve:** Employee benefits create a provision; choose long-term or short-term provisions according to the settlement period.

**20(a)(ii). Calls in advance.**

**Solution:**

**Concept:**

- Calls in advance are amounts received from shareholders before the company has made the corresponding call on their shares.
- Receipt of cash does not by itself make the amount called-up share capital. Until the call becomes due, the company records the advance as a liability.

**Step 1:** Identify the major heading Calls in advance appear under **Current liabilities** in the company's Balance Sheet. The amount is a shareholder's advance against a future call, rather than a call already made by the company.

**Step 2:** Identify the sub-heading The appropriate sub-heading is **Other current liabilities**. Calls in advance are neither a provision for an uncertain obligation nor a trade payable arising from the purchase of goods or services. They must also be kept separate from the called-up share capital.

**Step 3:** Conclusion Major heading: **Current liabilities**; sub-heading: **Other current liabilities**.

**Quick Tip to Solve:** When a shareholder pays before a call is made, classify the receipt as calls in advance under Other current liabilities.

**20(b). State any two limitations of 'Analysis of Financial Statements'.**

**Solution:**

**Concept:**

- Financial statement analysis interprets the accounting information in financial statements to assess performance and financial position.
- Analysis inherits the limitations of its underlying statements. Figures expressed in money cannot, on their own, provide every fact needed to judge a business.

**Step 1:** Explain the limitation of historical information **Historical analysis:** Financial statements mainly report transactions and results of past periods. Consequently, their analysis describes past performance and does not necessarily predict future results. For example, a past profit trend may not continue after a change in demand or operating conditions.

**Step 2:** Explain the omission of qualitative information **Qualitative factors are ignored:** Financial statements generally record items measurable in monetary terms. Important factors such as the competence of management, employee morale and customer satisfaction are therefore not adequately reflected in their analysis. These factors can materially affect future performance even when the reported financial ratios appear satisfactory.

**Step 3:** Conclusion Two limitations are **reliance on historical information** and **omission of important qualitative factors**.

**Quick Tip to Solve:** Give two distinct limitations: past monetary figures cannot guarantee future results or capture management and employee quality.

**21(a). A company earns Gross profit of 25% on cost. For the year ended 31st March, 2017 its Gross Profit was Rs 5,00,000; Equity Share Capital of the company was Rs 10,00,000; Reserves and Surplus Rs 2,00,000; Long Term Loan Rs 3,00,000 and Non Current Assets were Rs 10,00,000.**

**Compute the 'Working capital turnover ratio' of the company.** [4 marks total]

**Solution:**

**Concept:**

- Working capital turnover ratio measures revenue from operations generated per rupee of working capital: Ratio = Revenue from operations/Working capital.
- Working capital equals current assets minus current liabilities. It can also be found as long-term funds minus non-current assets.
- When gross profit is stated as a percentage of cost, apply that percentage to cost of revenue from operations, not to sales.

**Step 1:** Calculate cost and revenue from operations Gross profit is 25% of cost. Therefore,

$$\text{Cost of revenue from operations} = \frac{5,00,000 \times 100}{25} = \text{Rs } 20,00,000.$$

Revenue from operations equals cost plus gross profit:

$$\text{Revenue from operations} = 20,00,000 + 5,00,000 = \text{Rs } 25,00,000.$$

**Step 2:** Determine the working capital Long-term funds comprise equity share capital, reserves and surplus, and the long-term loan. Deduct the non-current assets financed by those funds:

$$\begin{aligned}\text{Long-term funds} &= 10,00,000 + 2,00,000 + 3,00,000\\ &= \text{Rs } 15,00,000,\\ \text{Working capital} &= 15,00,000 - 10,00,000\\ &= \text{Rs } 5,00,000.\end{aligned}$$

This is the portion of long-term finance available to support net current assets.

**Step 3:** Divide revenue by working capital

$$\text{Working capital turnover ratio} = \frac{25,00,000}{5,00,000} = 5 \text{ times}.$$

Thus, each rupee of working capital supports Rs 5 of revenue from operations during the year. The numerator is revenue, not gross profit or cost.

**Step 4:** Conclusion The company's **working capital turnover ratio is 5 times**.

**Quick Tip to Solve:** For 25% gross profit on cost, sales are 125% of cost; find working capital from long-term funds less non-current assets.

**21(b). Y Ltd's profits after interest and tax was Rs 1,00,000. Its Current Assets were Rs 4,00,000; Current Liabilities Rs 2,00,000; Fixed Assets Rs 6,00,000 and 10% Long term debt Rs 4,00,000. The rate of tax was 20%.**

**Calculate 'Return on Investment' of Y Ltd.**

**Solution:**

**Concept:**

- Return on investment is ROI $= (\text{PBIT}/\text{CE}) \times 100$, where PBIT is profit before interest and tax and CE is capital employed.
- Capital employed is fixed assets plus working capital, where working capital equals current assets minus current liabilities.
- Profit after tax equals profit before tax multiplied by $(1 - \text{tax rate})$. Reverse tax first, then add back interest to obtain profit before interest and tax.

**Step 1:** Recover profit before tax Tax is 20% of profit before tax, so the profit after tax of Rs 1,00,000 represents 80% of profit before tax:

$$\text{Profit before tax} = \frac{1,00,000 \times 100}{80} = \text{Rs } 1,25,000.$$

Adding 20% of the after-tax profit would use the wrong base.

**Step 2:** Add back the borrowing cost Annual interest on the 10% long-term debt is

$$\text{Interest} = 4,00,000 \times \frac{10}{100} = \text{Rs } 40,000.$$

Therefore,

$$\text{Profit before interest and tax} = 1,25,000 + 40,000 = \text{Rs } 1,65,000.$$

Interest is added back because capital employed includes the funds provided by long-term lenders as well as owners.

**Step 3:** Determine capital employed and the return

$$\text{Working capital} = 4,00,000 - 2,00,000 = \text{Rs } 2,00,000,$$
$$\text{Capital employed} = 6,00,000 + 2,00,000 = \text{Rs } 8,00,000.$$

Do not deduct long-term debt from this capital employed: it is part of the long-term finance whose return is being measured.

$$\text{ROI} = \frac{1,65,000}{8,00,000} \times 100 = 20.625\%.$$

**Step 4:** Conclusion Y Ltd.'s **return on investment is 20.625%**, or approximately **20.63%**.

**Quick Tip to Solve:** Divide after-tax profit by 0.80, add Rs 40,000 interest, then divide by fixed assets plus net current assets.

**22. From the following information, prepare a Comparative Statement of Profit and Loss :**

| Particulars | 31st March, 2017 | 31st March, 2016 |
|---|---|---|
| Revenue from operations | Rs 24,00,000 | Rs 18,00,000 |
| Other incomes (% of revenue from operations) | 15% | 25% |
| Expenses (% of revenue from operations) | 60% | 50% |
| Tax rate | 40% | 40% |

[4 marks]

**Solution:**

**Concept:**

- A comparative statement shows corresponding income and expense figures for two years, together with their absolute and percentage changes. The earlier year, 2015–16, is the base year.
- Absolute change equals the current-year amount minus the previous-year amount. Percentage change equals $\frac{\text{Absolute change}}{\text{Previous-year amount}} \times 100$. A negative sign denotes a decrease.
- Total revenue equals revenue from operations plus other income. Profit before tax equals total revenue less expenses; profit after tax equals profit before tax less tax.

**Step 1:** Calculate other income and expenses **Working Notes:** Both percentages in the question

apply to revenue from operations for the respective year. Therefore, calculate each year's amounts separately; do not apply these percentages to total revenue.

$$\text{Other income, 2016–17} = \text{Rs } 24,00,000 \times 15\% = \text{Rs } 3,60,000,$$
$$\text{Other income, 2015–16} = \text{Rs } 18,00,000 \times 25\% = \text{Rs } 4,50,000,$$
$$\text{Expenses, 2016–17} = \text{Rs } 24,00,000 \times 60\% = \text{Rs } 14,40,000,$$
$$\text{Expenses, 2015–16} = \text{Rs } 18,00,000 \times 50\% = \text{Rs } 9,00,000.$$

Total revenue is consequently Rs 27,60,000 in 2016–17 and Rs 22,50,000 in 2015–16.

**Step 2:** Determine profit and tax for each year Deduct the calculated expenses from total revenue and apply the tax rate to profit before tax.

$$\text{PBT, 2016–17} = 27,60,000 - 14,40,000 = \text{Rs } 13,20,000,$$
$$\text{PBT, 2015–16} = 22,50,000 - 9,00,000 = \text{Rs } 13,50,000,$$
$$\text{Tax, 2016–17} = 13,20,000 \times 40\% = \text{Rs } 5,28,000,$$
$$\text{Tax, 2015–16} = 13,50,000 \times 40\% = \text{Rs } 5,40,000.$$

Subtracting tax gives profit after tax of Rs 7,92,000 and Rs 8,10,000 respectively. For example, the revenue-from-operations increase is Rs $24,00,000 - 18,00,000 = 6,00,000$, or $6,00,000/18,00,000 \times 100 = 33.33\%$.

**Step 3:** Prepare the comparative statement **Comparative Statement of Profit and Loss**

For the years ended 31st March, 2016 and 31st March, 2017

| Particulars | 2015–16 (Rs) | 2016–17 (Rs) | Change (Rs) | Change (%) |
|---|---|---|---|---|
| I. Revenue from operations | 18,00,000 | 24,00,000 | 6,00,000 | 33.33 |
| II. Other income | 4,50,000 | 3,60,000 | −90,000 | −20.00 |
| III. Total revenue (I + II) | 22,50,000 | 27,60,000 | 5,10,000 | 22.67 |
| IV. Expenses | 9,00,000 | 14,40,000 | 5,40,000 | 60.00 |
| V. Profit before tax (III – IV) | 13,50,000 | 13,20,000 | −30,000 | −2.22 |
| VI. Tax expense (40%) | 5,40,000 | 5,28,000 | −12,000 | −2.22 |
| VII. Profit after tax (V – VI) | 8,10,000 | 7,92,000 | −18,000 | −2.22 |

Percentage changes are rounded to two decimal places. For example, the change in profit after tax is $(-18,000/8,10,000) \times 100 = -2.22\%$.

**Step 4:** Conclusion Profit after tax decreased from **Rs 8,10,000** to **Rs 7,92,000**, a decrease of **Rs 18,000 (2.22%)**. Although revenue from operations increased by 33.33%, expenses increased by 60% and other income decreased by 20%, reducing the final profit.

**Quick Tip to Solve:** Use 2015–16 as the denominator for every percentage change, even though the question lists 2016–17 first. Compute other income and expenses on revenue from operations before calculating profit and tax.

**23. Following is the Balance Sheet of Mevanca Limited as at 31st March, 2017**

**Mevanca Ltd.**

**Balance Sheet as at 31st March, 2017**

| Particulars | Note No. | 31st March, 2017 (Rs) | 31st March, 2016 (Rs) |
|---|---|---|---|
| I Equity and Liabilities | | | |
| 1. Shareholder's Funds | | | |
| (a) Share Capital | | 3,00,000 | 1,00,000 |
| (b) Reserves and Surplus | 1 | 25,000 | 1,20,000 |
| 2. Non-Current Liabilities<br>Long-term Borrowings | 2 | 80,000 | 60,000 |
| 3. Current Liabilities | | | |
| (a) Trade Payables | | 6,000 | 20,000 |
| (b) Short-term Provisions | 3 | 68,000 | 70,000 |
| Total : | | 4,79,000 | 3,70,000 |
| II. Assets | | | |
| 1. Non-Current Assets<br>Fixed Assets | 4 | 3,36,000 | 1,92,000 |
| 2. Current Assets | | | |
| (a) Inventories | | 67,000 | 60,000 |
| (b) Trade Receivables | | 51,000 | 65,000 |
| (c) Cash and Cash Equivalents | | 25,000 | 49,000 |
| (d) Other Current Assets | | - | 4,000 |
| Total : | | 4,79,000 | 3,70,000 |

**Notes to Accounts**

| Particulars | 31 March, 2017 (Rs) | 31 March, 2016 (Rs) |
|---|---|---|
| 1. Reserves and Surplus<br>Surplus i.e., Balance in Statement of Profit & Loss | 25,000 | 1,20,000 |
| | 25,000 | 1,20,000 |
| 2. Long-term Borrowings<br>10% Long term Loan | 80,000 | 60,000 |
| | 80,000 | 60,000 |
| 3. Short-term Provisions<br>Provision for Tax | 68,000 | 70,000 |
| | 68,000 | 70,000 |
| 4. Fixed Assets<br>Machinery | 3,84,000 | 2,15,000 |
| Accumulated Depreciation | (48,000) | (23,000) |
| | 3,36,000 | 1,92,000 |

**Additional Information :**

**(i) Additional loan was taken on 1st July, 2016.**

**(ii) Tax of Rs 53,000 was paid during the year.**

**Prepare Cash Flow Statement.** [6 marks]

**Solution:**

**Concept:**

- Under the indirect method, operating cash flow starts with profit or loss before tax and adjusts for non-cash expenses, financing expenses and changes in operating working capital.
- For a non-financial company, purchase of machinery is an investing outflow; issue of shares, loan proceeds and interest paid are financing cash flows. Income tax paid is an operating outflow.
- An increase in an operating current asset uses cash, while a decrease releases cash. A decrease in an operating current liability uses cash. Cash itself and the tax provision are excluded from these working-capital adjustments.

**Step 1:** Calculate the tax provision and loss before tax **Working Notes** The tax provision moves from Rs 70,000 to Rs 68,000 after payment of Rs 53,000. Therefore, the current year's tax charge is:

$$\text{Tax charge} = 68,000 + 53,000 - 70,000 = \text{Rs } 51,000.$$

No dividend or transfer out of the surplus is stated. Thus, the decrease in the Statement of Profit and Loss balance represents the loss after tax:

$$\text{Loss after tax} = 1,20,000 - 25,000 = \text{Rs } 95,000,$$
$$\text{Loss before tax} = 95,000 - 51,000 = \text{Rs } 44,000.$$

Use Rs (44,000) as the starting figure for operating activities. The tax charge is used to obtain the pre-tax result; the actual tax payment is deducted separately later.

**Step 2:** Determine depreciation, machinery purchase and interest No disposal of machinery is given. The increase in accumulated depreciation is therefore the year's non-cash depreciation charge, and the increase in gross machinery is the purchase:

$$\text{Depreciation} = 48,000 - 23,000 = \text{Rs } 25,000,$$
$$\text{Machinery purchased} = 3,84,000 - 2,15,000 = \text{Rs } 1,69,000.$$

The opening loan of Rs 60,000 bears interest for twelve months. The additional Rs 20,000 was borrowed on 1 July 2016, so it bears interest for nine months to 31 March 2017:

$$\text{Interest} = 60,000 \times 10\% + 20,000 \times 10\% \times \frac{9}{12} = \text{Rs } 7,500.$$

With no outstanding interest stated, this is also interest paid. Add it back in operating activities and show its payment under financing activities.

**Step 3:** Prepare the cash flow statement Inventory rises by Rs 7,000; receivables fall by Rs 14,000; other current assets fall by Rs 4,000; and trade payables fall by Rs 14,000. Their net effect is an operating cash outflow of Rs 3,000. Share capital increases by Rs 2,00,000 and the loan increases by Rs 20,000.

**Mevanca Ltd.**
**Cash Flow Statement for the year ended 31 March 2017**

| Particulars | Rs | Rs |
|---|---|---|
| **A. Cash flows from operating activities** | | |
| Net loss before tax | | (44,000) |
| Add: Depreciation | 25,000 | |
| Add: Interest on long-term loan | 7,500 | 32,500 |
| Operating loss before working-capital changes | | (11,500) |
| Increase in inventories | (7,000) | |
| Decrease in trade receivables | 14,000 | |
| Decrease in other current assets | 4,000 | |
| Decrease in trade payables | (14,000) | (3,000) |
| Cash used in operations | | (14,500) |
| Less: Income tax paid | | (53,000) |
| **Net cash used in operating activities (A)** | | **(67,500)** |
| **B. Cash flows from investing activities** | | |
| Purchase of machinery | | (1,69,000) |
| **Net cash used in investing activities (B)** | | **(1,69,000)** |
| **C. Cash flows from financing activities** | | |
| Proceeds from issue of share capital | 2,00,000 | |
| Proceeds from long-term loan | 20,000 | |
| Interest paid | (7,500) | |
| **Net cash from financing activities (C)** | | **2,12,500** |
| Net decrease in cash and cash equivalents (A+B+C) | | (24,000) |
| Add: Opening cash and cash equivalents | | 49,000 |
| **Closing cash and cash equivalents** | | **25,000** |

**Step 4:** Reconcile the statement with the balance sheet The three activity totals give:

$$-67,500 - 1,69,000 + 2,12,500 = -24,000.$$

Adding this decrease to the opening cash and cash equivalents gives Rs $49,000 - 24,000 = 25,000$, exactly the closing balance reported in the balance sheet. The increase in net fixed assets is not used as the purchase amount because it already includes the effect of depreciation.

**Step 5:** Conclusion Net cash used in operating activities is **Rs 67,500**; net cash used in investing activities is **Rs 1,69,000**; and net cash from financing activities is **Rs 2,12,500**. Cash and cash equivalents decrease by **Rs 24,000** to **Rs 25,000**.

**Quick Tip to Solve:** Work out the tax charge from the provision movement, and charge interest on the additional loan for only nine months. Use gross machinery values to find purchases.

*OPTION – II*

*Computerised Accounting*

**18. What is meant by the term 'Front End' database ?** [1 mark]

**Solution:**

**Concept:**

- A database application separates the user interface from the storage of its underlying data.
- The front end provides the forms, queries and reports through which a user works with data held in the back end.

**Step 1:** Identify the user-facing component The front end is the part of the database application that the user sees and operates. For example, an accounting data-entry form allows a user to enter voucher details without directly working on the stored tables.

**Step 2:** Explain its connection with stored data It accepts user inputs and requests, communicates with the back-end database and displays the resulting information. Thus, forms for entering transactions and reports for viewing balances belong to the user interface.

**Step 3:** Conclusion A front-end database is the user-interface part of a database application through which users enter, retrieve and view data stored in the back end.

**Quick Tip to Solve:** Associate front end with the forms and reports the user operates; associate back end with the stored data.

**19. Why is 'Report Wizard' a favourable tool for designers using MS Access ?** [1 mark]

**Solution:**

**Concept:**

- A report presents database information in an organised, readable form suitable for viewing or printing.
- Report Wizard is a guided facility in MS Access that builds a report from choices made by the designer.

**Step 1:** Identify the guided choices The wizard asks the designer to select the source table or query, the fields required, and suitable grouping, sorting and layout options. These prompts make report creation straightforward even without detailed design experience.

**Step 2:** State the practical advantage MS Access then generates the report automatically from those selections. This saves the time and effort of placing and formatting every field manually, while the generated report can still be modified to meet the user's needs.

**Step 3:** Conclusion Report Wizard is favourable because it provides step-by-step guidance and automatically creates an organised report quickly, with little manual design work.

**Quick Tip to Solve:** Link the wizard's guided selection of fields and layout to its main benefit: faster, easier report creation.

**20. What is meant by composite attribute ? How is it different from simple attribute ?** [4 marks]

**Solution:**

**Concept:**

- An attribute is a property used to describe an entity, such as the name or address of an employee.
- Classification as simple or composite depends on whether the attribute can be divided into smaller meaningful components in the database design.

**Step 1:** Explain a composite attribute A composite attribute is an attribute that can be subdivided into two or more meaningful component attributes. Each component describes a part of the original property and can be used separately when required. For example, an employee's Name can be divided into First Name, Middle Name and Last Name. Similarly, Address can be divided into House Number, Street, City, State and PIN Code.

**Step 2:** Explain a simple attribute A simple attribute is an attribute that cannot be further divided into smaller meaningful components for the purpose of the database. It is treated as one indivisible or atomic value. For example, Employee Number is normally stored and used as a single identifying value. Splitting its digits into separate fields would not provide distinct useful attributes in that design.

**Step 3:** Distinguish the two attributes The main difference is divisibility: a composite attribute has meaningful sub-attributes, whereas a simple attribute has none in the chosen database design. Thus, Name may be a composite attribute while First Name is a simple component of it. This distinction is useful when deciding which information needs to be accessed separately: an address divided into components permits the City field to be searched independently, while a simple attribute is handled as a whole.

**Step 4:** Conclusion A composite attribute can be split into meaningful component attributes, such as Address into City, State and other parts. A simple attribute is indivisible for the database's purpose, such as Employee Number.

**Quick Tip to Solve:** Test whether splitting the value produces separately useful properties. Name into First Name and Last Name is composite; merely splitting a code into digits does not make it composite.

**21. State any four requirements which should be considered before making an investing decision to choose between 'Desktop database' or 'Server database'.** [4 marks]

**Solution:**

**Concept:**

- A desktop database is generally suitable for an individual or a small workgroup, while a server database manages shared data centrally for a larger number of users.
- The investment decision should match the organisation's present and expected requirements for users, processing capacity, data protection and expenditure.

**Step 1:** Estimate the number of simultaneous users Determine how many users will access the database and how many will work on it at the same time. A desktop database may meet the needs of one user or a small group. A server database is preferable when many users must simultaneously

share and update accounting records, because it provides stronger central control over concurrent access.

**Step 2:** Assess the volume of data and transactions Estimate the amount of data to be stored, the frequency of transaction processing and the likely growth of the business. A small database with a light workload may be handled by a desktop system. Large volumes of records and frequent updates require greater processing capacity, scalability and reliable performance, favouring a server database.

**Step 3:** Identify security and reliability requirements Consider the sensitivity of accounting information, the access rights different users need, and the importance of backup and recovery. Where confidential records need detailed access restrictions and dependable recovery after failure, the stronger administration and control facilities of a server database are particularly useful. The required level of protection should guide the choice.

**Step 4:** Determine the available investment budget Compare the total cost with the funds available. Include software licences, hardware, installation, maintenance, training and database administration. Desktop databases usually involve lower initial and operating costs. A server system requires a larger investment and skilled administration, which should be justified by the scale and needs of the organisation.

**Step 5:** Conclusion Four requirements to consider are the number of simultaneous users, the volume and growth of data and transactions, the required security and reliability, and the available budget for purchase and operation.

**Quick Tip to Solve:** Organise the answer around users, workload, security and cost; connect each requirement to why a desktop or server database would be suitable.

**22. Explain the terms 'Password Security' and 'Data Vault'.** [4 marks]

**Solution:**

**Concept:**

- Accounting data must be protected against unauthorised access, disclosure and alteration because it contains confidential financial information.
- Password security controls access to the accounting system; a data vault protects the stored data through encryption.

**Step 1:** Explain password security Password security means restricting access to computerised accounting records by requiring a valid password. A password is a confidential sequence of characters known to an authorised user. The software verifies the password, usually together with the user's identity, before allowing access to the company's data.

The administrator can give different users different access rights. For example, a data-entry operator may be permitted to enter vouchers, while only an authorised manager may alter sensitive records or view restricted reports. Thus, the password helps prevent an unauthorised person from opening or using the accounting system. Passwords should be kept confidential, difficult to guess and changed periodically; sharing a password weakens this protection.

**Step 2:** Explain a data vault A data vault is a facility that safeguards accounting data by storing it in

an encrypted, or coded, form. Encryption transforms readable information into an unintelligible form, so that a person obtaining the stored files cannot readily read the company's accounts.

The correct vault password or decryption key is needed to unlock the protected data and make it readable for authorised use. It therefore protects the confidentiality of the data itself, including against unauthorised inspection of copied files. The vault password must be kept securely because losing it may make the encrypted data inaccessible. A data vault is a security facility, while a backup is a separate copy used for recovery after data loss; maintaining a vault does not remove the need for backups.

**Step 3:** Conclusion Password security restricts entry and access to the accounting system. A data vault encrypts stored accounting data so that only authorised persons with the required password or key can read it.

**Quick Tip to Solve:** Remember the distinction: a password checks who may enter; a data vault codes the stored data so that an unauthorised reader cannot understand it.

**23. Yamaha industries purchased an embossing machine for Rs 4,35,000. They paid Rs 45,000 as installation and transport expenses. Assuming that the salvage value of machine at the end of 5 years is Rs 2,00,000, calculate depreciation by Straight Line Method & its Rate, using formulas in MS excel.** [6 marks]

**Solution:**

**Concept:**

- Asset cost includes purchase price and the installation and transport expenditure incurred to bring the asset to its working condition.
- Under the Straight Line Method, annual depreciation equals $(C - S)/n$, where $C$ is capitalised cost, $S$ is salvage value and $n$ is useful life in years.
- The annual depreciation rate on original cost is $(\text{annual depreciation}/C) \times 100$. Excel's `SLN(cost,salvage,life)` returns depreciation for one period.

**Step 1:** Calculate the capitalised cost Installation and transport are necessary to make the embossing machine ready for use, so they are added to its purchase price rather than treated as a separate annual expense.

$$C = 4,35,000 + 45,000 = \text{Rs } 4,80,000.$$

The residual value at the end of five years is Rs 2,00,000. Therefore, only the balance of the machine's cost is depreciated over its useful life:

$$C - S = 4,80,000 - 2,00,000 = \text{Rs } 2,80,000.$$

**Step 2:** Set up the worksheet and depreciation formula Enter the following worksheet data. Numeric entries in column B are numbers; the commas shown here are display formatting.

| Row | Column A: Description | Column B: Value |
|---|---|---|
| 1 | Purchase price (Rs) | 4,35,000 |
| 2 | Installation and transport (Rs) | 45,000 |
| 3 | Total capitalised cost (Rs) | `=SUM(B1:B2)` |
| 4 | Salvage value (Rs) | 2,00,000 |
| 5 | Useful life (years) | 5 |
| 6 | Annual depreciation (Rs) | `=SLN(B3,B4,B5)` |
| 7 | Annual rate (percentage format) | `=B6/B3` |

Cell B3 returns 4,80,000. In B6, `=SLN(B3,B4,B5)` or the arithmetic formula `=(B3-B4)/B5` calculates the same annual charge:

$$D = \frac{4,80,000 - 2,00,000}{5} = \frac{2,80,000}{5} = \text{Rs } 56,000.$$

Because useful life is entered in years, the result is depreciation per year. Straight line depreciation remains the same in each of the five years.

**Step 3:** Calculate the depreciation rate in Excel Divide annual depreciation by the full capitalised cost, including installation and transport. In B7 enter `=B6/B3` and apply Percentage format with two decimal places. The formula returns 0.1166667, displayed as $11.67\%$.

$$r = \frac{56,000}{4,80,000} \times 100 = 11\frac{2}{3}\% \text{ per annum.}$$

Alternatively, `=B6/B3*100` in a cell with Number format returns 11.6667; do not also apply Percentage format to that result. Dividing by the depreciable amount of Rs 2,80,000 would give 20%, but that is not the annual rate on original cost asked for here.

**Step 4:** Check the end-of-life carrying amount Total depreciation over the five-year life is $56,000 \times 5 =$ Rs $2,80,000$. Thus the closing carrying amount is

$$4,80,000 - 2,80,000 = \text{Rs } 2,00,000,$$

which equals the given salvage value. This check confirms that both the cost base and the annual charge have been used consistently.

**Step 5:** Conclusion Annual straight line depreciation is **Rs 56,000**, calculated with `=SLN(B3,B4,B5)`. Its rate on capitalised cost is $\boxed{11\frac{2}{3}\%}$ per annum, approximately $11.67\%$, calculated with `=B6/B3` in Percentage format.

**Quick Tip to Solve:** Add installation and transport to cost before using SLN. For the rate, divide the SLN result by total cost, and apply Percentage format without multiplying by 100 again.