CBSE Class 12 Accountancy Question Paper 2017 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. What is meant by 'Hidden Goodwill' ? [1 mark]

Solution:

Concept:

- Goodwill is the value of the reputation and other advantages that enable a firm to earn profits above the normal return.
- Hidden goodwill is inferred from an agreed valuation or a capital arrangement rather than being expressly stated.

Step 1: Identify the implied value When a new partner brings capital for an agreed share of profits, that contribution may imply the total capitalised value of the firm.

Step 2: Compare with net capital The excess of this implied total value over the actual combined capital of the partners is treated as hidden goodwill. Thus its amount is calculated indirectly from the information given.

Step 3: Conclusion Hidden goodwill is goodwill whose amount is not stated directly but is inferred from the capital or valuation arrangements of the firm.

Quick Tip to Solve: For an admission problem, infer total firm value from the incoming partner's capital and share, then compare it with actual total capital.

2. Akash, Naveen and Zaid are partners sharing profits in the ratio of 3:2:2. Zaid died on 1st September, 2016. The total amount owed by the firm to his executors was Rs 60,000. The firm decided to pay him in three equal annual instalments carrying interest @6% p.a. beginning with 1st September, 2017. Pass the journal entry for recording the above transaction on the date of Zaid's death. [1 mark]

Solution:

Concept:

- The amount due to a deceased partner is payable to the executor. If payment is deferred, it is transferred from the deceased partner's capital account to the executor's loan account.
- Interest is charged for the period for which the amount remains outstanding; future interest is not recorded on the date of death.

Step 1: Identify the liability on 1st September, 2016 The total amount due to Zaid's executors is Rs 60,000. Since the firm will pay this amount in future annual instalments, it becomes a loan payable to his executors. No instalment is paid on the date of death.

Step 2: Record the transfer Journal of the Firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-9-2016	Zaid's Capital A/c Dr.		60,000	
	To Zaid's Executor's Loan A/c			60,000
	(Being the amount due to Zaid's executors transferred to their loan account, repayable in three equal annual instalments with interest at 6% p.a.)			

The annual principal instalment will be $60,000/3 = \text{Rs } 20,000$, but it first falls due on 1st September, 2017. Interest accrues subsequently and is therefore excluded from this entry.

Step 3: Conclusion Debit Zaid's Capital Account and credit Zaid's Executor's Loan Account by Rs 60,000 on 1st September, 2016.

Quick Tip to Solve: Use the date asked: on death transfer the amount owed to the executor's loan; record interest only as time subsequently elapses.

3. Differentiate between dissolution of partnership and dissolution of a partnership firm on the basis of 'continuity of business'. [1 mark]

Solution:

Concept:

- A partnership is the relationship among partners, whereas the firm is the business organisation carried on by them.
- A change in the relationship can occur without closing the business; ending the firm terminates its business.

Step 1: Dissolution of partnership The existing partnership agreement ends or changes, but the business can continue under a reconstituted partnership. For example, the remaining partners may continue the business after a partner retires.

Step 2: Dissolution of partnership firm The business of the firm is discontinued and its affairs are wound up. Assets are realised and liabilities settled to close the business, rather than continuing it under a revised agreement.

Step 3: Conclusion On dissolution of partnership, business may continue; on dissolution of the partnership firm, business ceases.

Quick Tip to Solve: For this comparison, focus on whether the business continues, rather than merely whether the old partnership agreement ends.

4. Does the change in profit sharing ratio result into dissolution of the partnership firm ? Give reason in support of your answer. [1 mark]

Solution:

Concept:

- A change in the profit-sharing ratio is a reconstitution of the partnership: it changes the agreement among the partners.
- Dissolution of the firm means closure of its business and winding up its affairs.

Step 1: Identify what changes The partners agree to distribute future profits and losses in a revised ratio. Their mutual rights change, so the old partnership arrangement is replaced by a new arrangement.

Step 2: Check continuity of the firm The same business continues with its assets and liabilities under the revised agreement. A ratio change does not require the firm to stop trading or realise all its assets and settle its liabilities.

Step 3: Conclusion No. A change in the profit-sharing ratio results in reconstitution of the partnership, while the firm continues its business; it does not dissolve the firm.

Quick Tip to Solve: Distinguish a change in partners' mutual agreement from winding up the business when explaining a ratio change.

5. State the ratio in which the partners share the gain or loss on revaluation of assets and liabilities. [1 mark]

Solution:

Concept:

- Revaluation adjusts the recorded values of assets and liabilities at the time of reconstitution.
- The resulting gain or loss belongs to the partners who bore the risks and earned the profits before the reconstitution.

Step 1: Identify the period to which the change relates The increase or decrease in the value of existing assets and liabilities has arisen while the old partnership agreement operated. It is therefore attributable to the old partners.

Step 2: Choose the applicable ratio Transfer the gain or loss on revaluation to the old partners' capital accounts in their old profit-sharing ratio. The new ratio governs future profits, so it is not used for this adjustment.

Step 3: Conclusion The partners share the gain or loss on revaluation of assets and liabilities in their old profit-sharing ratio.

Quick Tip to Solve: Connect revaluation to past ownership: use the old ratio, reserving the new ratio for profits earned after reconstitution.

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

Solution:

Concept:

- A company may raise share capital by offering shares to a selected group of investors.
- The distinguishing feature of private placement is that the offer is directed to identified persons rather than opened to the public generally.

Step 1: Identify the recipients Under private placement, the company selects particular persons or a group of investors to whom it offers its shares. The recipients may include institutional investors or other identified investors.

Step 2: Explain the nature of the issue The company issues or allots shares to those selected investors through a private offer. Since there is no general invitation to the public to subscribe, it differs from a public issue of shares.

Step 3: Conclusion Private placement of shares means an issue or allotment of shares by a company to a selected group of identified persons through a private offer, instead of offering them to the public.

Quick Tip to Solve: In a definition of private placement, mention both selected investors and the absence of a general public invitation.

7. The total capital of the firm of Saurabh, Mohit and Nikhil was Rs 1,00,000. The net profits for the last 3 years were : 2013-14 Rs 40,000; 2014-15 Rs 46,000 and 2015-16 Rs 52,000. There was an abnormal loss of Rs 3,000 in 2014-15. Goodwill of the firm was to be valued at 2 years purchase of the average profits of last three years. Calculate the goodwill of the firm. [3 marks]

Solution:

Concept:

- Goodwill under the average profits method equals normal average annual profit multiplied by the agreed number of years' purchase.
- An abnormal loss is non-recurring. Add it back to the reported profit of the affected year to obtain the maintainable profit; ordinary recurring expenses remain deducted.

Step 1: Adjust the profit of 2014-15 The abnormal loss of Rs 3,000 reduced the reported profit for 2014-15. Since it is not expected to recur, it must be added back before averaging:

$$\text{Adjusted profit for 2014-15} = 46,000 + 3,000 = \text{Rs } 49,000.$$

The profits of 2013-14 and 2015-16 need no adjustment and remain Rs 40,000 and Rs 52,000 respectively. Deducting the abnormal loss again would understate the normal profit.

Step 2: Calculate normal average profit All three years have equal weight because the question

specifies the average profits method without any weights. Therefore,

$$\begin{aligned}\text{Total adjusted profits} &= 40,000 + 49,000 + 52,000\\ &= \text{Rs } 1,41,000,\\ \text{Average annual profit} &= \frac{1,41,000}{3} = \text{Rs } 47,000.\end{aligned}$$

The firm's total capital of Rs 1,00,000 is not used: this is neither the super-profit method nor the capitalisation method.

Step 3: Apply two years purchase The agreed purchase factor is two, so

$$\text{Goodwill} = 47,000 \times 2 = \text{Rs } 94,000.$$

This values the benefit of the firm's normal earnings for two years, using the corrected historical average.

Step 4: Conclusion The goodwill of Saurabh, Mohit and Nikhil's firm is $\boxed{\text{Rs } 94,000}$.

Quick Tip to Solve: Add back the abnormal loss in its own year before averaging; capital is irrelevant to this method.

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8. Sico Ltd. took over the assets of Rs 4,80,000 and liabilities of Rs 80,000 of Mittal Ltd. for a consideration of Rs 3,20,000. Rs 20,000 were paid by an acceptance in favour of Mittal Ltd. payable after 3 months and the balance by issue of fully paid up 8% Preference Shares of Rs 100 each at a premium of 50%. Pass the necessary journal entries for the above transactions in the books of Sico Ltd. [3 marks]

Solution:

Concept:

- Net assets acquired equal assets less liabilities. When net assets exceed purchase consideration, the difference is credited to Capital Reserve.
- Preference shares issued at a premium settle the vendor at their issue price. Face value is credited to Preference Share Capital and the premium to Securities Premium Reserve.

Step 1: Calculate capital reserve and shares issued

$$\begin{aligned}\text{Net assets} &= 4,80,000 - 80,000 = \text{Rs } 4,00,000,\\ \text{Capital reserve} &= 4,00,000 - 3,20,000 = \text{Rs } 80,000,\\ \text{Balance payable in shares} &= 3,20,000 - 20,000 = \text{Rs } 3,00,000,\\ \text{Issue price per share} &= 100 + 50 = \text{Rs } 150,\\ \text{Number of shares} &= 3,00,000/150 = 2,000.\end{aligned}$$

Thus the share capital credit is Rs 2,00,000 and the securities premium credit is Rs 1,00,000. The 8% describes the preference dividend rate; it does not change the issue price.

Step 2: Record the purchase and settlement Journal of Sico Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Sundry Assets A/c Dr.		4,80,000	
	To Sundry Liabilities A/c			80,000
	To Mittal Ltd.			3,20,000
	To Capital Reserve A/c			80,000
	(Being assets and liabilities taken over and excess net assets credited to capital reserve)			
	Mittal Ltd. Dr.		3,20,000	
	To Bills Payable A/c			20,000
	To 8% Preference Share Capital A/c			2,00,000
	To Securities Premium Reserve A/c			1,00,000
	(Being consideration settled by a three-month acceptance and 2,000 fully paid preference shares issued at 50% premium)			

The acceptance creates a bill payable rather than an immediate bank payment. The first entry balances at Rs 4,80,000 on each side, and the settlement entry balances at Rs 3,20,000 on each side.

Step 3: Conclusion Capital reserve is Rs 80,000; Sico Ltd. issues 2,000 fully paid 8% preference shares and accepts a bill for Rs 20,000.

Quick Tip to Solve: Divide the share settlement by Rs 150, then split the credit between Rs 100 capital and Rs 50 premium per share.

9. Kansa Ltd. offered 32,000 equity shares of Rs 100 each to the public at a premium of Rs 20 per share. The amount was payable as : Rs 20 on application; Rs 40 (including premium) on allotment; and the balance on first and final call. 30,000 shares were subscribed by the public.

All the money was duly received except from a shareholder holding 4,000 shares who failed to pay the first and final call money. His shares were forfeited. Show 'Share Capital' in the Balance Sheet of Kansa Ltd. Also prepare 'Notes to Accounts'. [3 marks]

Solution:

Concept:

- Share capital includes subscribed fully paid shares and the capital amount received on forfeited shares, until those shares are reissued. Securities premium is not share capital.
- After forfeiture, the forfeited shares are excluded from subscribed capital. The amount forfeited comprises only the capital instalments actually received on them.

Step 1: Find the paid-up capital and forfeited amount The allotment amount of Rs 40 includes Rs 20 premium, so its capital component is Rs 20. The first and final call is therefore

$$100 - 20 - 20 = \text{Rs } 60 \text{ per share.}$$

The defaulting shareholder paid Rs 40 of capital per share (Rs 20 application plus Rs 20 allotment

capital). Premium of Rs 20 was also received but is excluded from the forfeited capital amount.

$$\begin{aligned}\text{Fully paid shares remaining} &= 30,000 - 4,000 = 26,000,\\ \text{Fully paid share capital} &= 26,000 \times 100 = \text{Rs } 26,00,000,\\ \text{Amount originally paid on forfeited shares} &= 4,000 \times 40\\ &= \text{Rs } 1,60,000.\end{aligned}$$

No calls in arrears remain against the forfeited shares after their forfeiture.

Step 2: Present the balance sheet extract Kansa Ltd. — Balance Sheet (extract)

Particulars	Note No.	Amount (Rs)
I. Equity and Liabilities		
1. Shareholders' Funds		
(a) Share Capital	1	27,60,000

Notes to Accounts — Note 1: Share Capital

Particulars	Amount (Rs)
Issued capital 32,000 equity shares of Rs 100 each	32,00,000
Subscribed and fully paid-up capital 26,000 equity shares of Rs 100 each Add: Forfeited shares (amount originally paid up on 4,000 shares)	26,00,000 1,60,000
Total share capital	27,60,000

Authorised capital is unspecified. Premium is shown separately under reserves and surplus.

Step 3: Conclusion Share Capital under Shareholders' Funds is $\boxed{\text{Rs } 27,60,000}$, including Rs 1,60,000 paid on forfeited shares.

Quick Tip to Solve: Exclude the premium from forfeited capital: only Rs 20 application plus Rs 20 allotment capital was paid per forfeited share.

10. Farhan, Hina and Dolly are partners in a firm sharing profits in the ratio of 5 : 3 : 2. On 1st April, 2016 the capitals of the partners were : Rs 5,00,000; Rs 3,00,000 and Rs 2,00,000 respectively. The firm closes its books on 31st March every year. Dolly died on 5th April, 2016.

On that date :

(a) Goodwill of the firm was valued at Rs 30,000; and

(b) Dolly's share of profit till the date of her death was calculated as Rs 200.

Prepare Dolly's Capital A/c to be rendered to her executors. [3 marks]

Solution:

Concept:

- A deceased partner's capital account is credited with the opening capital, her share of goodwill and profit earned up to death. The final amount is transferred to her executor's account.
- Goodwill entitlement equals total goodwill multiplied by the deceased partner's old profit share. Continuing partners compensate her in their gaining ratio; when no new ratio is given, they

continue in their existing relative ratio.

Step 1: Calculate goodwill compensation Dolly's old share is $2/10$. Hence her share of goodwill is

$$\text{Rs } 30,000 \times \frac{2}{10} = \text{Rs } 6,000.$$

Farhan and Hina continue in the relative ratio $5:3$, so their gains are $1/8$ and $3/40$, respectively, giving a gaining ratio of $5:3$. Their capital accounts are therefore debited by Rs 3,750 and Rs 2,250, and Dolly's capital account is credited by Rs 6,000. Goodwill need not be raised in the books.

Step 2: Prepare the account rendered to the executors Dolly's share of profit is already given as Rs 200, so no further time apportionment is necessary. The capital balance at 1st April is brought forward, and the credits arising at death are added before transferring the entire amount due.

Dolly's Capital Account

Dr.	Particulars	Amount (Rs)	Particulars	Amount (Rs)	Cr.
	To Dolly's Executor's A/c	2,06,200	By Balance b/d	2,00,000	
			By Farhan's Capital A/c	3,750	
			By Hina's Capital A/c	2,250	
			By Profit and Loss Suspense A/c	200	
	Total	2,06,200	Total	2,06,200	

The transfer closes Dolly's capital account; the executor's account carries the liability until payment. No drawings, interest on capital or other adjustment is stated, so no such amount is introduced.

Step 3: Conclusion The amount payable to Dolly's executors is Rs $2,00,000 + \text{Rs } 6,000 + \text{Rs } 200 =$ $\boxed{\text{Rs } 2,06,200}$.

Quick Tip to Solve: Use the given profit figure directly, and add goodwill using the deceased partner's old share before transferring the balance to the executor.

11. Bhavya and Naman were partners in a firm carrying on a tiffin service in Hyderabad. Bhavya noticed that a lot of food is left at the end of the day. To avoid wastage she suggested that it be distributed to the needy; Naman wanted that it should be mixed with the food being served the next day. Naman then gave a proposal that if his share in the profit is increased, he will not mind free distribution of left over food. Bhavya happily agreed. So, they decided to change their profit sharing ratio to 1 : 2 with immediate effect. On that date revaluation of assets and reassessment of liabilities was carried out that resulted into a gain of Rs 18,000. On that date the goodwill of the firm was valued at Rs 1,20,000.

(a) Pass necessary journal entries for the above in the books of the firm.

(b) State any two values highlighted in the above para. [4 marks]

Solution:

Concept:

- When the partnership agreement is silent about the old profit-sharing ratio, profits are shared equally. Revaluation gain belongs to partners in their old ratio.
- Goodwill adjustment compensates a sacrificing partner: sacrifice equals old share minus new share. The gaining partner is debited and the sacrificing partner is credited with the compensation; goodwill is not raised merely because it has been valued.

Step 1: Determine the old ratio and change in shares No old ratio is specified, so Bhavya and Naman share equally, i.e. $1:1$. Their new shares are $1/3$ and $2/3$.

$$\text{Bhavya's sacrifice} = \frac{1}{2} - \frac{1}{3} = \frac{1}{6},$$
$$\text{Naman's gain} = \frac{2}{3} - \frac{1}{2} = \frac{1}{6}.$$

Naman must therefore compensate Bhavya by Rs $1,20,000 \times 1/6 =$ Rs $20,000$. The revaluation gain of Rs 18,000 is distributed equally: Rs 9,000 to each partner. Using the new ratio for this gain would incorrectly allocate a gain that arose before the ratio changed.

Step 2: Pass the adjustment entries Journal of the Firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Revaluation A/c Dr. To Bhavya's Capital A/c To Naman's Capital A/c (Being revaluation gain transferred in the old equal ratio)		18,000	 9,000 9,000
	Naman's Capital A/c Dr. To Bhavya's Capital A/c (Being goodwill compensation for Bhavya's sacrifice of one-sixth share)		20,000	 20,000

The net capital effect is a credit of Rs 29,000 to Bhavya and a net debit of Rs 11,000 to Naman. Together these changes increase total partners' capital by Rs 18,000, agreeing with the revaluation gain; the goodwill adjustment only redistributes capital.

Step 3: State two values highlighted (i) **Compassion and social responsibility:** Bhavya proposes distributing usable surplus food to needy people, showing concern for their welfare.

(ii) **Avoidance of wastage and responsible use of resources:** Her proposal puts surplus food to useful immediate consumption instead of discarding it. These values relate directly to the actions described in the question.

Step 4: Conclusion Revaluation gain is credited Rs 9,000 each to Bhavya and Naman. For goodwill, debit Naman's Capital A/c and credit Bhavya's Capital A/c by Rs 20,000. The values include compassion and avoidance of food wastage.

Quick Tip to Solve: If no old ratio is stated, start with equal shares; distribute revaluation in that ratio and adjust goodwill only for the change in share.

12. Cemto Ltd. forfeited 6,000 shares of Rs 10 each issued at a premium of Rs 2 per share for the non-payment of final call of Rs 3 per share. 300 of the forfeited shares were reissued for Rs 8 per share as fully paid up.

Pass necessary journal entries for the forfeiture and re-issue of shares. Also prepare share forfeited account. [4 marks]

Solution:

Concept:

- On forfeiture, debit called-up share capital; credit the unpaid call and the capital already received to Share Forfeiture.
- Reissue discount is charged to Share Forfeiture. Only the surplus belonging to shares actually reissued is transferred to Capital Reserve.

Step 1: Calculate the amounts forfeited The final call is the only unpaid amount. Thus the full nominal capital called up on 6,000 shares is $6,000 \times 10 = \text{Rs } 60,000$, while final call unpaid is $6,000 \times 3 = \text{Rs } 18,000$. Capital money already received is $6,000 \times (10 - 3) = \text{Rs } 42,000$. The issue premium was received earlier; Securities Premium is therefore not reversed on forfeiture. Only capital receipts enter Share Forfeiture Account.

Step 2: Record forfeiture and reissue Journal of Cemto Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Capital A/c Dr.		60,000	
	To Share Final Call A/c			18,000
	To Share Forfeiture A/c			42,000
	(Being 6,000 shares forfeited for unpaid final call)			
	Bank A/c Dr.		2,400	
	Share Forfeiture A/c Dr.		600	
	To Share Capital A/c			3,000
	(Being 300 shares reissued at Rs 8 as fully paid)			
	Share Forfeiture A/c Dr.		1,500	
	To Capital Reserve A/c			1,500
	(Being surplus on reissued shares transferred)			

Step 3: Determine capital profit and prepare the account The forfeiture attributable to the 300 reissued shares is $300 \times 7 = \text{Rs } 2,100$. The discount allowed on reissue is $300 \times (10 - 8) = \text{Rs } 600$, within that available amount. Hence the realised capital profit is $2,100 - 600 = \text{Rs } 1,500$. The balance

relating to 5,700 shares not yet reissued stays in Share Forfeiture Account: $5,700 \times 7 = \text{Rs } 39,900$.

Share Forfeiture Account in the books of Cemto Ltd.

Dr.	Particulars	Amount (Rs)	Particulars	Amount (Rs)	Cr.
	To Share Capital A/c	600	By Share Capital A/c	42,000	
	To Capital Reserve A/c	1,500			
	To Balance c/d	39,900			
	Total	42,000	Total	42,000	
			By Balance b/d	39,900	

Step 4: Conclusion Capital Reserve is credited with Rs 1,500; the credit balance of Share Forfeiture Account is Rs 39,900.

Quick Tip to Solve: Exclude premium already received from forfeiture capital receipts, and release profit only for the 300 shares reissued.

13. (a) Journalise the following transaction on issue of 11% debentures :

Winona Ltd. issued Rs 80,000, 11% debentures of Rs 100 each at a premium of 5% redeemable at a premium of 10%.

(b) Journalise the following transactions for redemption of debentures :

(i) Hevkel Ltd. redeemed Rs 1,00,000, 13% debentures of Rs 100 each at 110% by converting them into equity shares of Rs 50 each issued at a premium of 10%.

(ii) Anglec Ltd. purchased its own 420, 11% Debentures of Rs 1,000 each @ Rs 1,002 per debenture for immediate cancellation.

Ignore entries for Debenture Redemption Reserve, Debenture Redemption Investments and Interest.

[6 marks]

Solution:

Concept:

- Debentures are credited at face value; issue premium is credited separately to Securities Premium and redemption premium is provided as a liability at issue.
- For conversion, divide the total redemption amount due by the issue price per equity share, including its premium.
- On immediate cancellation, compare purchase consideration with the nominal liability extinguished; excess consideration is a loss.

Step 1: (a) Issue of debentures by Winona Ltd. The nominal amount is Rs 80,000, so the number of debentures is $80,000/100 = 800$. Issue premium is $80,000 \times 5\% = \text{Rs } 4,000$, giving bank proceeds of Rs 84,000. Redemption premium is $80,000 \times 10\% = \text{Rs } 8,000$. This is a loss on issue and is recognised when the debentures are issued, together with the corresponding liability for premium payable on redemption.

Journal of Winona Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		84,000	
	Loss on Issue of Debentures A/c Dr.		8,000	
	To 11% Debentures A/c			80,000
	To Securities Premium A/c			4,000
	To Premium on Redemption of Debentures A/c			8,000
	(Being debentures issued at 5% premium, redeemable at 10% premium)			

Step 2: (b)(i) Redemption by conversion: Hevkel Ltd. The amount due to debentureholders is $1,00,000 \times 110\% =$ Rs $1,10,000$. Each equity share is issued for $50 + 10\% \times 50 =$ Rs 55. The number of shares required is therefore $1,10,000/55 = 2,000$. Their nominal capital is $2,000 \times 50 =$ Rs $1,00,000$ and securities premium is $2,000 \times 5 =$ Rs $10,000$. Redemption premium is debited to its existing liability account when the debentures become due; it must not be omitted merely because the consideration is shares.

Journal of Hevkel Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	13% Debentures A/c Dr.		1,00,000	
	Premium on Redemption of Debentures A/c Dr.		10,000	
	To Debentureholders A/c			1,10,000
	(Being debentures made due at 110%)			
	Debentureholders A/c Dr.		1,10,000	
	To Equity Share Capital A/c			1,00,000
	To Securities Premium A/c			10,000
	(Being 2,000 equity shares issued at Rs 55 in settlement)			

Step 3: (b)(ii) Purchase and immediate cancellation: Anglec Ltd. The face value cancelled is $420 \times 1,000 =$ Rs $4,20,000$. Purchase consideration is $420 \times 1,002 =$ Rs $4,20,840$. Since the consideration exceeds face value by $4,20,840 - 4,20,000 =$ Rs 840, cancellation produces a loss. The interest rate does not affect this calculation because interest entries are expressly excluded. Immediate cancellation permits the direct entry below, combining purchase and cancellation without retaining an Own Debentures balance.

Journal of Anglec Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	11% Debentures A/c Dr.		4,20,000	
	Loss on Cancellation of Own Debentures A/c Dr.		840	
	To Bank A/c			4,20,840
	(Being 420 own debentures purchased at Rs 1,002 each and immediately cancelled)			

Step 4: Conclusion Winona: bank Rs 84,000 and loss on issue Rs 8,000. Hevkel: issue 2,000 equity shares. Anglec: loss on cancellation Rs 840.

Quick Tip to Solve: Use the redemption value for conversion and the full share issue price as divisor; compare own-debenture cost with face value for cancellation.

14. Give the necessary journal entries for the following transactions on dissolution of the firm of Anita and Ravi on 31st March 2016, after the various assets (other than cash) and the third party liabilities have been transferred to Realisation Account. They shared profits and losses in the ratio 3 : 2.

(a) Ravi was to get a remuneration of Rs 23,000 for completing the dissolution process. He also agreed to bear realization expenses. Realisation expenses of Rs 10,000 were paid by Ravi from the firm's cash.

(b) Amitesh, an old customer whose account for Rs 60,000 was written off as bad debt in the previous year, paid 90%.

(c) Creditors of Rs 40,000, accepted furniture valued at Rs 38,000 in full settlement of their claim.

(d) Land and Building was sold for Rs 3,00,000 through a broker who charged 2% commission.

(e) There were 500 shares of Rs 40 each in Vision Ltd., acquired at a cost of Rs 22,000 and had been written off completely from the books. These shares are now valued at Rs 50 each and divided among the partners in their profit sharing ratio.

(f) Profit on realization was Rs 45,000. [6 marks]

Solution:

Concept:

- After assets and third-party liabilities have been transferred, cash realised is credited to Realisation Account and payments chargeable to the firm are debited to it.
- A partner bearing dissolution expenses is personally liable for them. If the firm pays those expenses, debit that partner's Capital Account; remuneration payable is separately credited to the partner.
- An unrecorded asset taken over by partners is credited to Realisation Account at its agreed value. Realisation profit is distributed in the old profit-sharing ratio, here $3:2$.

Step 1: (a) Remuneration and expenses borne by Ravi Journal of Anita and Ravi (31st March 2016). Ravi is entitled to Rs 23,000 regardless of the Rs 10,000 expenses he agreed to bear. Since the latter were paid using firm cash, the firm recovers that amount through a debit to his capital.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Realisation A/c Dr.		23,000	
	To Ravi's Capital A/c			23,000
	(Being remuneration due to Ravi for dissolution)			
31-3-2016	Ravi's Capital A/c Dr.		10,000	
	To Cash A/c			10,000
	(Being expenses borne by Ravi paid from firm cash)			

Step 2: (b) Recovery of bad debt The amount recovered is $60,000 \times 90/100 = \text{Rs } 54,000$. The customer balance was written off in the previous year, so there is no existing debtor account to credit; the recovery is a realisation receipt.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Cash A/c Dr.		54,000	
	To Realisation A/c			54,000
	(Being previously written-off debt recovered)			

Step 3: (c) Furniture accepted by creditors No journal entry is required. Both furniture and

creditors have already been transferred to Realisation Account. Settlement of a transferred liability by a transferred asset requires no further entry, even though their stated values differ by Rs 2,000. Recording a separate gain would duplicate the effect already included in Realisation Account.

Step 4: (d) Sale of land and building through a broker Brokerage on this sale is $3,00,000 \times 2/100 =$ Rs $6,000$, leaving net proceeds of Rs 2,94,000. Record the sale and the specific brokerage charge separately as follows (equivalently, one compound entry may record the net receipt). The expense arrangement in (a) is recorded there.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Cash A/c Dr.		3,00,000	
	To Realisation A/c			3,00,000
	(Being land and building sold through broker)			
31-3-2016	Realisation A/c Dr.		6,000	
	To Cash A/c			6,000
	(Being brokerage paid on sale)			

Step 5: (e) Distribution of unrecorded shares The shares have no remaining book value. Their agreed takeover value is $500 \times 50 =$ Rs $25,000$; the historical cost and face value are irrelevant to this entry. Anita takes $500 \times 3/5 = 300$ shares worth Rs 15,000 and Ravi takes 200 shares worth Rs 10,000. Debit their capitals because assets are withdrawn by them.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Anita's Capital A/c Dr.		15,000	
	Ravi's Capital A/c Dr.		10,000	
	To Realisation A/c			25,000
	(Being unrecorded shares taken over by partners)			

Step 6: (f) Transfer realisation profit The given final realisation profit is Rs 45,000. It is transferred in the old profit-sharing ratio: Anita $= 45,000 \times 3/5 =$ Rs $27,000$, Ravi $= 45,000 \times 2/5 =$ Rs $18,000$. This closes the credit balance in Realisation Account; do not recompute the stated final profit from the selected transactions.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Realisation A/c Dr.		45,000	
	To Anita's Capital A/c			27,000
	To Ravi's Capital A/c			18,000
	(Being realisation profit transferred in ratio 3:2)			

Step 7: Conclusion The entries above record the dissolution transactions. Anita and Ravi receive realisation profit of Rs 27,000 and Rs 18,000 respectively.

Quick Tip to Solve: When a partner bears expenses but uses firm cash, debit the partner's capital; do not charge the same expense again to Realisation.

15. Mudit and Uday are partners in a firm sharing profits in the ratio 2 : 3. Their capital accounts as on April 1, 2015 showed balances of Rs 70,000 and Rs 60,000 respectively. The drawings of Mudit and Uday during the year 2015-2016 were Rs 16,000 and Rs 12,000 respectively. Both the amounts were withdrawn on 1st January 2016. It was subsequently found that the following items had been omitted while preparing the final accounts for the year ended 31st March 2016.

(a) Interest on capitals @ 6% p.a.;

(b) Interest on drawings @ 6% p.a.;

(c) Mudit was entitled to a commission of Rs 4,000 for the whole year.

Showing you workings clearly pass a rectifying entry in the books of the firm. [6 marks]

Solution:

Concept:

- An omitted appropriation changes both the amount due directly to a partner and the divisible profit. The net effect is adjusted through partners' Capital Accounts.
- Interest on capital is calculated on opening capital for the year. Interest on drawings runs from the withdrawal date to the year end.
- The net omitted charge against divisible profit is shared in the profit-sharing ratio $2 : 3$. No cash moves when a rectifying entry corrects partners' balances.

Step 1: Calculate omitted interest and commission The capitals given are opening balances on 1st April 2015, so interest is due for the full year:

$$\text{Mudit: } 70,000 \times 6\% = \text{Rs } 4,200,$$
$$\text{Uday: } 60,000 \times 6\% = \text{Rs } 3,600.$$

Both drawings were made on 1st January 2016 and remained withdrawn for three months up to 31st March 2016. Hence interest on drawings is

$$\text{Mudit: } 16,000 \times \frac{6}{100} \times \frac{3}{12} = \text{Rs } 240,$$
$$\text{Uday: } 12,000 \times \frac{6}{100} \times \frac{3}{12} = \text{Rs } 180.$$

Mudit is also entitled to the full stated commission of Rs 4,000. It is a fixed amount; no percentage-of-profit calculation is required.

Step 2: Find the effect on divisible profit Interest on capital and commission reduce the profit available for distribution, while interest on drawings increases it. The net omitted appropriation is

$$4,200 + 3,600 + 4,000 - 240 - 180 = \text{Rs } 11,380.$$

Because these adjustments were omitted when accounts were prepared, this amount was distributed as profit in excess. Reduce the partners' previously credited profit shares by

$$\text{Mudit: } 11,380 \times \frac{2}{5} = \text{Rs } 4,552, \qquad \text{Uday: } 11,380 \times \frac{3}{5} = \text{Rs } 6,828.$$

The ratio applies to the net change in divisible profit, not to the individual interest or commission

entitlements.

Step 3: Prepare the adjustment working Combine each partner's direct entitlement with the correction to profit already shared. Credits increase the partner's capital and debits reduce it.

Particulars	Mudit (Rs)	Uday (Rs)
Interest on capital: credit	4,200	3,600
Commission: credit	4,000	–
Interest on drawings: debit	(240)	(180)
Net direct entitlement: credit	7,960	3,420
Excess profit already credited: debit	(4,552)	(6,828)
Net adjustment	3,408 credit	3,408 debit

The debit and credit must agree. Mudit's net entitlement is Rs 7,960 less Rs 4,552, which gives Rs 3,408; Uday's net debit is Rs 6,828 less Rs 3,420, also Rs 3,408.

Step 4: Pass the rectifying journal entry Journal of the firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2016	Uday's Capital A/c Dr.		3,408	
	To Mudit's Capital A/c			3,408
	(Being omitted interest and commission adjusted through capitals)			

Only the net capital transfer is necessary: reopening Profit and Loss Appropriation Account would give the same result but introduces unnecessary intermediate entries.

Step 5: Conclusion Uday's Capital Account Dr. Rs 3,408; To Mudit's Capital Account Rs 3,408.

Quick Tip to Solve: First total the net omitted appropriations, then subtract each partner's profit-share reduction from that partner's direct net entitlement.

16. Benolac Paints Ltd. invited application for issuing 1,20,000 equity shares of Rs 10 each at a premium of Rs 2 per share. The amount was payable as follows :

On application - Rs 3 per share (including premium Rs 1)

On allotment - Rs 3 per share.

On first and final call - Rs 6 per share (including premium Rs 1)

Applications for 1,40,000 shares were received. Applications for 10,000 shares were rejected and pro-rata allotment was made to the remaining applicants. Over payments on application were adjusted towards sums due on allotment. All calls were made and were duly received except allotment and final call on 6,000 shares allotted to Sharvi. These shares were forfeited. Afterwards, half of the forfeited shares were re-issued for Rs 33,000 as fully paid up.

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

Solution:

Concept:

- Application money is divided between share capital and premium. Excess application money of successful applicants reduces their allotment liability.
- On forfeiture, debit called-up capital and reverse only premium that was due but never received.

Share forfeiture records capital money already received.

- Only the forfeiture surplus belonging to shares actually re-issued is transferred to capital reserve.

Step 1: Compute application adjustment and Sharvi's default The successful applicants applied for $1,30,000$ shares and received $1,20,000$, so the application-to-allotment ratio is $13:12$. Excess application money is $10,000 \times 3 =$ Rs $30,000$; a separate Rs 30,000 is refunded on rejected applications. Sharvi applied for $6,000 \times 13/12 = 6,500$ shares. Her excess application money is $500 \times 3 =$ Rs $1,500$. Hence her unpaid allotment is $18,000 - 1,500 =$ Rs $16,500$, and total allotment cash is $3,60,000 - 30,000 - 16,500 =$ Rs $3,13,500$.

Step 2: Record application and allotment Journal of Benolac Paints Ltd. (application and allotment)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		4,20,000	
	To Share Application A/c			4,20,000
	(Being application money received on 1,40,000 shares)			
	Share Application A/c Dr.		4,20,000	
	To Share Capital A/c			2,40,000
	To Securities Premium A/c			1,20,000
	To Share Allotment A/c			30,000
	To Bank A/c			30,000
	(Being application money adjusted, excess credited to allotment and rejected applications refunded)			
	Share Allotment A/c Dr.		3,60,000	
	To Share Capital A/c			3,60,000
	(Being allotment money due on 1,20,000 shares)			
	Bank A/c Dr.		3,13,500	
	To Share Allotment A/c			3,13,500
	(Being allotment money received except the net amount due from Sharvi)			

Step 3: Calculate forfeiture and the re-issue surplus Sharvi paid Rs 19,500 on application. Of this, Rs 6,000 is received premium; the remaining Rs 13,500 is capital received, including the Rs 1,500 adjusted to allotment. The call includes Rs 5 capital and Rs 1 premium per share. Thus unpaid call premium is Rs 6,000 and unpaid call money is Rs 36,000. Half the forfeited shares means 3,000 shares; their fully paid capital is Rs 30,000, so re-issue proceeds of Rs 33,000 include Rs 3,000 premium. The related forfeiture surplus is $13,500 \times 3,000/6,000 =$ Rs $6,750$.

Step 4: Record call, forfeiture and re-issue Journal of Benolac Paints Ltd. (call and subsequent entries)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First and Final Call A/c Dr.		7,20,000	
	To Share Capital A/c			6,00,000
	To Securities Premium A/c			1,20,000
	(Being first and final call due, including premium of Rs 1 per share)			
	Bank A/c Dr.		6,84,000	
	To Share First and Final Call A/c			6,84,000
	(Being call received except on Sharvi's 6,000 shares)			
	Share Capital A/c Dr.		60,000	
	Securities Premium A/c Dr.		6,000	
	To Share Allotment A/c			16,500
	To Share First and Final Call A/c			36,000
	To Share Forfeiture A/c			13,500
	(Being 6,000 shares forfeited and unpaid call premium reversed)			
	Bank A/c Dr.		33,000	
	To Share Capital A/c			30,000
	To Securities Premium A/c			3,000
	(Being 3,000 forfeited shares re-issued as fully paid at Rs 11 each)			
	Share Forfeiture A/c Dr.		6,750	
	To Capital Reserve A/c			6,750
	(Being forfeiture surplus relating to the re-issued shares transferred to capital reserve)			

Step 5: Conclusion Capital reserve is credited with Rs 6,750. The remaining Rs 6,750 stays in Share Forfeiture A/c for the 3,000 shares not yet re-issued. Re-issue premium is Rs 3,000.

Quick Tip to Solve: For Sharvi, separate received application premium from capital before calculating forfeiture; reverse only the unpaid premium in the final call.

OR

16. Bayson Ltd. invited applications for issuing 54,000 shares of Rs 100 each payable as follows :

Rs 50 per share on application

Rs 10 per share on allotment

Balance on first and final call.

Applications were received for 80,000 shares. Full allotment was made to the applicants of 14,000 shares. The remaining applicants were allotted 40,000 shares on pro-rata basis. Excess money received with application was adjusted towards sums due on allotment and call.

Vibhor, holding 1,200 shares, who belonged to the category of applicants to whom full allotment was made, paid the call money at the time of allotment. Vidur, who belonged to the category of applicants to whom shares were allotted on pro-rata basis did not pay anything after application on his 400 shares. Vidur's shares were forfeited after the first and final call. All the forfeited shares were later on re-issued at Rs 110 per share as fully paid up.

Pass the necessary journal entries in the books of Bayson Ltd. for the above transactions by opening calls in arrears and calls in advance account wherever necessary. [8 marks]

Solution:

Concept:

- Excess application money is first adjusted to allotment, then carried as calls in advance until the call becomes due.
- Calls in arrears records only the unpaid amount still outstanding after adjusting money already received.
- Forfeiture credits capital actually received; re-issue above face value creates securities premium and permits the related forfeiture surplus to be transferred to capital reserve.

Step 1: Work out category-wise application adjustments Full allotment applicants receive 14,000 shares and the remaining applicants apply for $80,000 - 14,000 = 66,000$ shares against 40,000 allotted. Their ratio is $66,000 : 40,000 = 33 : 20$. Total application receipt is $80,000 \times 50 =$ Rs $40,00,000$, while application capital is $54,000 \times 50 =$ Rs $27,00,000$. Excess Rs 13,00,000 belongs wholly to the pro-rata category. Adjust its allotment of $40,000 \times 10 =$ Rs $4,00,000$, leaving Rs 9,00,000 as calls in advance. The full-allotment category pays Rs 1,40,000 on allotment; Vibhor additionally pays $1,200 \times 40 =$ Rs $48,000$.

Step 2: Record application and allotment Journal of Bayson Ltd. (application and allotment)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		40,00,000	
	To Share Application A/c			40,00,000
	(Being application money received on 80,000 shares)			
	Share Application A/c Dr.		40,00,000	
	To Share Capital A/c			27,00,000
	To Share Allotment A/c			4,00,000
	To Calls in Advance A/c			9,00,000
	(Being application capital credited and excess adjusted towards allotment and call)			
	Share Allotment A/c Dr.		5,40,000	
	To Share Capital A/c			5,40,000
	(Being allotment money due)			
	Bank A/c Dr.		1,88,000	
	To Share Allotment A/c			1,40,000
	To Calls in Advance A/c			48,000
	(Being balance allotment received together with Vibhor's advance call money)			

Step 3: Determine Vidur's arrears and call receipt Vidur applied for $400 \times 33/20 = 660$ shares and paid $660 \times 50 =$ Rs $33,000$. His application capital is Rs 20,000, leaving Rs 13,000 excess. Of this, Rs 4,000 meets allotment and Rs 9,000 meets part of his Rs 16,000 call. Therefore his unpaid call is Rs 7,000; there is no allotment arrear. Total call due is $54,000 \times 40 =$ Rs $21,60,000$. Calls in advance available are $9,00,000 + 48,000 =$ Rs $9,48,000$. Cash received is therefore $21,60,000 - 9,48,000 - 7,000 =$ Rs $12,05,000$. On forfeiture, the Rs 33,000 already received on Vidurś shares becomes the forfeiture credit.

Step 4: Record call, forfeiture and re-issue Journal of Bayson Ltd. (call and subsequent entries)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First and Final Call A/c Dr.		21,60,000	
	To Share Capital A/c			21,60,000
	(Being first and final call of Rs 40 per share made due)			
	Calls in Advance A/c Dr.		9,48,000	
	Bank A/c Dr.		12,05,000	
	Calls in Arrears A/c Dr.		7,000	
	To Share First and Final Call A/c			21,60,000
	(Being advance call money adjusted, balance collected and Vidur's default recorded)			
	Share Capital A/c Dr.		40,000	
	To Calls in Arrears A/c			7,000
	To Share Forfeiture A/c			33,000
	(Being Vidur's 400 fully called shares forfeited)			
	Bank A/c Dr.		44,000	
	To Share Capital A/c			40,000
	To Securities Premium A/c			4,000
	(Being all 400 forfeited shares re-issued at Rs 110 as fully paid)			
	Share Forfeiture A/c Dr.		33,000	
	To Capital Reserve A/c			33,000
	(Being entire forfeiture surplus transferred after re-issue of all forfeited shares)			

Step 5: Conclusion Vidurś calls in arrears are Rs 7,000. Re-issue creates securities premium of Rs 4,000, and the whole Rs 33,000 forfeiture surplus is transferred to capital reserve.

Quick Tip to Solve: Vidurś excess application money covers his entire allotment and Rs 9,000 of his call; calculate the remaining default only after both adjustments.

17. Qadir and Rishab are partners sharing profits in the ratio of 3 : 2. Their Balance Sheet as at 31st March, 2016 is given below :

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Qadir's Capital	11,40,000	Land & Building	5,60,000
Rishab's Capital	7,00,000	Plant & Machinery	6,00,000
Workmen's Compensation Reserve	60,000	Stock	1,60,000
Creditors	1,00,000	Debtors 6,00,000 Less Provision 20,000	5,80,000
		Bank	1,00,000
	20,00,000		20,00,000

Qadir and Rishab decides to admit Sapna as a new partner from 1st April, 2016. Their new profit sharing ratio was 3 : 2 : 5. Sapna brought in Rs 6,00,000 as her capital and her share of goodwill premium in cash.

(a) Sapna's share of goodwill premium was valued at Rs 30,000.

(b) Plant and Machinery be valued at 125%.

(c) Creditors were unrecorded to the extent of Rs 30,000.

(d) Claim on account of workmen compensation was Rs 40,000.

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

Solution:

Concept:

- On admission, revaluation profit and the distributable portion of an existing reserve belong to the old partners in their old profit-sharing ratio.
- Goodwill premium compensates the sacrificing partners. A workmen compensation claim is retained as a liability; only the excess reserve is distributed.

Step 1: Compute sacrifice and goodwill The old ratio is $3:2$, while the new ratio is $3:2:5$. Qadir sacrifices $3/5 - 3/10 = 3/10$ and Rishab sacrifices $2/5 - 2/10 = 2/10$, giving a sacrificing ratio of $3:2$. Sapna brings capital of Rs 6,00,000 plus goodwill premium of Rs 30,000. Thus the premium is credited to Qadir by Rs 18,000 and Rishab by Rs 12,000. No goodwill asset is raised.

Step 2: Revalue assets and liabilities Plant and Machinery becomes $6,00,000 \times 125/100 =$ Rs $7,50,000$, an increase of Rs 1,50,000. Unrecorded creditors of Rs 30,000 are recognised. Revaluation profit is therefore Rs 1,20,000, shared as Rs 72,000 and Rs 48,000.

Revaluation Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Creditors	30,000	By Plant and Machinery	1,50,000
To Qadir's Capital (profit)	72,000		
To Rishab's Capital (profit)	48,000		
Total	1,50,000	Total	1,50,000

Step 3: Distribute the reserve and prepare capital accounts The reserve of Rs 60,000 covers the claim of Rs 40,000. Its excess of Rs 20,000 is credited to Qadir and Rishab in ratio $3:2$, namely Rs 12,000 and Rs 8,000. The claim remains payable and is not also charged to revaluation. Capital balances are obtained by adding these credits and the goodwill and revaluation credits to opening capitals.

Qadir's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Balance c/d	12,42,000	By Balance b/d	11,40,000
		By Bank (capital)	–
		By Goodwill premium	18,000
		By W.C. Reserve	12,000
		By Revaluation	72,000
Total	12,42,000	Total	12,42,000

Rishab's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Balance c/d	7,68,000	By Balance b/d	7,00,000
		By Bank (capital)	–
		By Goodwill premium	12,000
		By W.C. Reserve	8,000
		By Revaluation	48,000
Total	7,68,000	Total	7,68,000

Sapna's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Balance c/d	6,00,000	By Balance b/d	–
		By Bank (capital)	6,00,000
		By Goodwill premium	–
		By W.C. Reserve	–
		By Revaluation	–
Total	6,00,000	Total	6,00,000

Step 4: Prepare the reconstituted balance sheet Bank increases by the entire cash introduced: $1,00,000 + 6,00,000 + 30,000 =$ Rs $7,30,000$. Creditors become Rs 1,30,000; the debtors provision is unchanged.

Balance Sheet as at 1st April, 2016

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Qadir's Capital	12,42,000	Land and Building	5,60,000
Rishab's Capital	7,68,000	Plant and Machinery	7,50,000
Sapna's Capital	6,00,000	Stock	1,60,000
Creditors	1,30,000	Debtors (net)	5,80,000
Workmen's compensation claim	40,000	Bank	7,30,000
Total	27,80,000	Total	27,80,000

Step 5: Conclusion The revaluation profit is Rs 1,20,000. Closing capitals are Qadir Rs 12,42,000, Rishab Rs 7,68,000 and Sapna Rs 6,00,000; the Balance Sheet totals Rs 27,80,000.

Quick Tip to Solve: Deduct the compensation claim from its reserve first; distribute only the excess, avoiding a second charge to revaluation.

OR

17. Kanika, Disha and Kabir were partners sharing profits in the ratio of 2 : 1 : 1. On 31-3-2016, their Balance Sheet was as under :

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Trade creditors	53,000	Bank	60,000
Employees' Provident Fund	47,000	Debtors	60,000
Kanika's capital	2,00,000	Stock	1,00,000
Disha's capital	1,00,000	Fixed assets	2,40,000
Kabir's capital	80,000	Profit & Loss A/c.	20,000
	4,80,000		4,80,000

Kanika retired on 1-4-2016. For this purpose, the following adjustments were agreed upon :

(a) Goodwill of the firm was valued at 2 years' purchase of average profits of three completed years preceding the date of retirement. The profits for the year : 2013-14 were Rs 1,00,000 and for 2014-15 were Rs 1,30,000.

(b) Fixed assets were to be increased to Rs 3,00,000.

(c) Stock was to be valued at 120%.

(d) The amount payable to Kanika was transferred to her loan account.

Prepare Revaluation Account, Capital Accounts of the partners and the Balance Sheet of the reconstituted firm.

[8 marks]

Solution:

Concept:

- The retiring partner shares revaluation profit and existing accumulated losses in the old ratio. The debit balance of Profit and Loss Account is an accumulated loss.
- The continuing partners compensate the retiring partner for her share of goodwill in their gaining ratio. Transfer the final amount due to the retiring partner to her loan account when it is not paid.

Step 1: Calculate goodwill and gaining ratio The Balance Sheet shows a debit balance of Profit and Loss Account of Rs 20,000. With no other profit information for 2015-16, this is the loss for the immediately preceding completed year. Hence average profit is

$$(1,00,000 + 1,30,000 - 20,000)/3 = \text{Rs } 70,000.$$

Goodwill is $70,000 \times 2 = \text{Rs } 1,40,000$. Kanika has a half share, so her goodwill entitlement is Rs 70,000. Disha and Kabir continue in their relative old ratio $1:1$; each gains $1/2 - 1/4 = 1/4$. Each capital is debited by Rs 35,000 and Kanika is credited by Rs 70,000. No goodwill asset remains.

Step 2: Prepare the Revaluation Account Fixed assets increase from Rs 2,40,000 to Rs 3,00,000: a gain of Rs 60,000. Stock becomes $1,00,000 \times 120/100 = \text{Rs } 1,20,000$: a gain of Rs 20,000. Total revaluation profit of Rs 80,000 is credited in ratio $2:1:1$, as Rs 40,000, Rs 20,000 and Rs 20,000 respectively.

Revaluation Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Kanika's Capital	40,000	By Fixed assets	60,000
To Disha's Capital	20,000	By Stock	20,000
To Kabir's Capital	20,000		
Total	80,000	Total	80,000

Step 3: Adjust partners capital accounts The accumulated debit balance of Rs 20,000 is debited to the three capitals in ratio $2:1:1$: Rs 10,000, Rs 5,000 and Rs 5,000. Kanika is therefore entitled to $2,00,000 - 10,000 + 40,000 + 70,000 = \text{Rs } 3,00,000$, which is transferred to her Loan Account. Disha retains Rs 80,000 and Kabir Rs 60,000 after their goodwill adjustments.

Kanika's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Profit and Loss A/c	10,000	By Balance b/d	2,00,000
To Loan A/c	3,00,000	By Revaluation	40,000
		By Disha and Kabir (goodwill)	70,000
Total	3,10,000	Total	3,10,000

Disha's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Profit and Loss A/c	5,000	By Balance b/d	1,00,000
To Kanika's Capital	35,000	By Revaluation	20,000
To Balance c/d	80,000		
Total	1,20,000	Total	1,20,000

Kabir's Capital Account (amounts in Rs)

Dr. Particulars	Amount	Particulars	Amount Cr.
To Profit and Loss A/c	5,000	By Balance b/d	80,000
To Kanika's Capital	35,000	By Revaluation	20,000
To Balance c/d	60,000		
Total	1,00,000	Total	1,00,000

Step 4: Prepare the reconstituted balance sheet There is no cash payment to Kanika, so bank remains Rs 60,000. The Profit and Loss debit balance has been written off against capitals and is no longer shown as an asset. Employees Provident Fund remains a liability in full.

Balance Sheet as at 1st April, 2016

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Trade creditors	53,000	Bank	60,000
Employees' Provident Fund	47,000	Debtors	60,000
Kanika's Loan	3,00,000	Stock	1,20,000
Disha's Capital	80,000	Fixed assets	3,00,000
Kabir's Capital	60,000		
Total	5,40,000	Total	5,40,000

Step 5: Conclusion Revaluation profit is Rs 80,000; Kanika Loan Account is credited by Rs 3,00,000. Disha and Kabir have capitals of Rs 80,000 and Rs 60,000. The Balance Sheet totals Rs 5,40,000.

Quick Tip to Solve: Include the debit Profit and Loss balance as a loss when averaging the three years, and also write it off against old capitals.

Part B (20 marks)

Option – I

18. What is meant by 'Cash Equivalents' ? [1 mark]

Solution:

Concept:

- Cash equivalents are investments held to meet short-term cash commitments rather than for investment purposes.
- Liquidity, ready convertibility into a known amount of cash and insignificant risk of value changes distinguish them from ordinary investments.

Step 1: Identify the essential characteristics A cash equivalent is a short-term, highly liquid investment readily convertible into a known amount of cash and subject to an insignificant risk of changes in value. All these conditions must be satisfied together.

Step 2: Apply the maturity criterion Such investments normally have a short maturity of three months or less from the date of acquisition. An investment does not qualify merely because it can be sold easily: its cash realisation must also be sufficiently certain.

Step 3: Conclusion Cash equivalents are short-term, highly liquid investments readily convertible into known amounts of cash and subject to insignificant risk of changes in value, normally having a maturity of three months or less from acquisition.

Quick Tip to Solve: Remember the three tests together: short term, known cash amount and insignificant value risk.

19. Give any one example of an activity, which is an investing activity for every type of enterprise.

[1 mark]

Solution:

Concept:

- Investing activities include acquisition and disposal of long-term assets and other investments that are not cash equivalents.
- The use of an asset in the business determines classification: a tangible fixed asset is acquired for long-term use.

Step 1: Choose an activity common to all enterprises Consider a cash payment to purchase machinery for use as a tangible fixed asset in the enterprise. This acquires a long-term productive resource rather than meeting an ordinary operating expense.

Step 2: Classify the cash payment The cash payment for purchase of such machinery is an investing cash outflow for every type of enterprise, including a financial enterprise. It is not a financing activity because it does not change owners' capital or borrowings.

Step 3: Conclusion Cash payment for the purchase of machinery for use as a fixed asset is an investing activity for every type of enterprise.

Quick Tip to Solve: Use purchase of a tangible fixed asset; interest or dividend classification can differ for financial enterprises.

20. (a) Classify the following items under Major Head and Sub-Head (if any) in the Balance Sheet of a company as per Schedule III of the Companies Act, 2013 :

(i) Income received in advance and

(ii) Capital Advances.

(b) State any two limitations of 'Analysis of Financial Statements'. [4 marks]

Solution:

Concept:

- Schedule III groups liabilities and assets into current and non-current categories, with appropriate sub-heads.
- Financial statement analysis interprets recorded accounting information; its usefulness is limited by the nature and reliability of that information.

Step 1: (a)(i) Classify income received in advance Income received in advance is a liability because cash has been received before the related income has been earned. In the normal case it belongs under Current Liabilities, with the sub-head Other Current Liabilities. It is not revenue earned for the current period.

Item	Major Head	Sub-Head
Income received in advance	Current Liabilities	Other Current Liabilities

Step 2: (a)(ii) Classify capital advances Capital advances are amounts paid towards acquisition of fixed assets before the assets are supplied or the acquisition is completed. Under the Schedule III classification applicable to this paper, they are non-current assets shown under Long-term Loans and Advances. They are not trade advances for inventory.

Item	Major Head	Sub-Head
Capital advances	Non-current Assets	Long-term Loans and Advances

Step 3: (b) Limitation 1: price-level changes are ignored Financial statements generally use historical costs. Changes in the purchasing power of money are not adjusted for. Consequently, comparisons between different years may reflect inflation as well as actual changes in business performance. For example, a rise in sales value need not mean a proportionate rise in the quantity sold.

Step 4: (b) Limitation 2: qualitative factors are ignored Financial statement analysis mainly uses monetary information recorded in accounts. Important qualitative factors such as employee skill, management efficiency and customer satisfaction are not adequately shown. Therefore, numerical ratios and trends alone cannot give a complete assessment of the enterprise or its future prospects.

Step 5: Conclusion Income received in advance: Current Liabilities – Other Current Liabilities. Capital advances: Non-current Assets – Long-term Loans and Advances. Two limitations are ignoring price-level changes and ignoring qualitative factors.

Quick Tip to Solve: Distinguish an advance paid for a fixed asset from income received before it is earned: the former is an asset and the latter a liability.

21. (a) The net profit after interest and tax of a company was Rs 1,20,000; Rate of income tax is 40%. The company has 10% debentures of Rs 1,00,000. Calculate interest coverage ratio.

(b) From the following information related to a company calculate inventory turnover ratio : Opening inventory Rs 20,000; Closing inventory Rs 22,000; Purchases Rs 80,000; Wages Rs 9,000; Carriage outwards Rs 2,000; Returns outwards Rs 1,000; Revenue from operations Rs 80,000; Carriage inwards Rs 4,000; Rent Rs 5,000. [4 marks]

Solution:

Concept:

- Interest coverage ratio measures the number of times profit before interest and tax (EBIT) covers interest on long-term debt: Interest coverage ratio $=$ EBIT/Interest.
- Inventory turnover ratio compares cost of revenue from operations with average inventory. Average inventory is half the sum of opening and closing inventories; only costs of bringing goods to saleable condition enter the numerator.

Step 1: (a) Recover profit before tax and calculate interest The net profit of Rs 1,20,000 is after both interest and income tax. As tax is 40% of profit before tax, the given profit represents 60% of profit before tax. Hence,

$$\text{Profit before tax} = \frac{1,20,000 \times 100}{60} = \text{Rs } 2,00,000.$$

Annual interest on debentures is $1,00,000 \times 10/100 = \text{Rs } 10,000$. This interest has already been

deducted in arriving at profit before tax, so it must be added back to obtain EBIT.

Step 2: (a) Calculate the interest coverage ratio

$$\text{EBIT} = 2,00,000 + 10,000 = \text{Rs } 2,10,000,$$
$$\text{Interest coverage ratio} = \frac{2,10,000}{10,000} = 21 \text{ times}.$$

Thus, the company's earnings before interest and tax cover its debenture interest 21 times. Using profit after tax directly would understate the earnings available to meet interest.

Step 3: (b) Calculate cost of revenue from operations Net purchases are $80,000 - 1,000 = \text{Rs } 79,000$. Wages and carriage inwards are direct costs and are included. Carriage outwards is a selling expense and rent is treated as an indirect expense, so neither is included in the cost of goods sold.

$$\begin{aligned}\text{Cost of revenue from operations} &= 20,000 + 79,000 + 9,000 + 4,000 - 22,000 \\ &= \text{Rs } 90,000.\end{aligned}$$

Revenue from operations of Rs 80,000 is the sales figure; it is not the numerator of the inventory turnover ratio.

Step 4: (b) Calculate average inventory and turnover

$$\text{Average inventory} = \frac{20,000 + 22,000}{2} = \text{Rs } 21,000,$$
$$\text{Inventory turnover ratio} = \frac{90,000}{21,000} = 4.2857 \approx 4.29 \text{ times}.$$

The use of an average recognises that inventory is held throughout the accounting period, while the numerator represents the cost of goods sold over that entire period.

Step 5: Conclusion (a) Interest coverage ratio is $\boxed{21 \text{ times}}$. (b) Inventory turnover ratio is $\boxed{4.29 \text{ times (approximately)}}$.

Quick Tip to Solve: First gross up after-tax profit by dividing by 60%; for inventory turnover, deduct purchase returns and include carriage inwards, but exclude carriage outwards.

22. From the following Statement of Profit and Loss of Sun Ltd., for the years ended 31st March, 2015 and 2016, prepare a Common Size Statement :

Particulars	Note No.	2015-16 Amount (Rs)	2014-15 Amount (Rs)
Revenue from operations		30,00,000	20,00,000
Expenses		12,00,000	10,00,000
Other incomes		3,60,000	4,00,000
Income Tax		50%	40%

[4 marks]

Solution:

Concept:

- In a common size Statement of Profit and Loss, revenue from operations is taken as 100% for each year. Each other amount is expressed as a percentage of that same year's revenue from operations.
- Profit before tax equals total income less expenses. Income tax is calculated on profit before tax at the applicable rate, and profit after tax is the balance remaining after this deduction.

Step 1: Calculate profits and tax for both years For 2015-16, total income is $30,00,000 + 3,60,000 =$ Rs $33,60,000$. Deducting expenses of Rs 12,00,000 gives profit before tax of Rs 21,60,000. Income tax at 50% is Rs 10,80,000, leaving profit after tax of Rs 10,80,000.

For 2014-15, total income is $20,00,000 + 4,00,000 =$ Rs $24,00,000$. Deducting expenses of Rs 10,00,000 gives profit before tax of Rs 14,00,000. Income tax at 40% is Rs 5,60,000, leaving profit after tax of Rs 8,40,000. The printed tax rates are applied to profit before tax, rather than to revenue.

Step 2: Express each item as a percentage of revenue Use the following formula:

$$\text{Common size percentage} = \frac{\text{Item amount}}{\text{Revenue from operations}} \times 100.$$

For example, expenses for 2015-16 are $12,00,000/30,00,000 \times 100 = 40\%$, while other income for 2014-15 is $4,00,000/20,00,000 \times 100 = 20\%$. The two years have separate denominators; total income is not the base.

Step 3: Prepare the common size statement **Sun Ltd. — Common Size Statement of Profit and Loss**

For the years ended 31st March, 2016 and 31st March, 2015

Particulars	2015-16		2014-15	
	Amount (Rs)	%	Amount (Rs)	%
Revenue from operations	30,00,000	100	20,00,000	100
Other income	3,60,000	12	4,00,000	20
Total income	33,60,000	112	24,00,000	120
Less: Expenses	12,00,000	40	10,00,000	50
Profit before tax	21,60,000	72	14,00,000	70
Less: Income tax	10,80,000	36	5,60,000	28
Profit after tax	10,80,000	36	8,40,000	42

Check: total-income percentage less expense percentage equals the profit-before-tax percentage in each year. Deducting the tax percentage then gives the profit-after-tax percentage. Although profit after tax rose in rupees, its proportion of revenue declined from 42% to 36%.

Step 4: Conclusion The common size statement shows profit before tax at 72% and 70%, and profit after tax at 36% and 42%, of revenue from operations for 2015-16 and 2014-15 respectively.

Quick Tip to Solve: Keep revenue from operations at 100% in both years; calculate tax on profit before tax before converting the tax amount into a revenue-based percentage.

23. Calculate Cash Flows from Investing Activities from the following information :

Particulars	31st March 2015 (Rs)	31st March 2014 (Rs)
Investments in shares of Miko Ltd.	18,00,000	8,00,000
12% Long term Investments	1,50,000	5,00,000
Plant and Machinery	6,00,000	4,00,000
Goodwill	1,20,000	40,000

Additional information :

(i) 9% dividend was received from Miko Ltd.

(ii) A machine costing Rs 50,000 (depreciation provided thereon Rs 15,000) was sold for Rs 40,000. Depreciation charged during the year was Rs 55,000. [6 marks]

Solution:

Concept:

- Investing activities include acquisition and disposal of fixed assets and investments, together with interest and dividends received by a non-financial enterprise.
- For a depreciable asset, closing carrying amount equals opening carrying amount plus purchases less carrying amount disposed of less depreciation for the year.
- The cash received on sale is included in investing cash flows; depreciation and profit on sale are not separate investing cash flows.

Step 1: Calculate cash received from investments The increase in Miko Ltd. shares represents an investment purchase of Rs $(18,00,000 - 8,00,000) = \text{Rs } 10,00,000$. Dividend received is calculated on the opening investment:

$$\text{Dividend} = 8,00,000 \times \frac{9}{100} = \text{Rs } 72,000.$$

The decrease in long-term investments gives sale proceeds of Rs $(5,00,000 - 1,50,000) = \text{Rs } 3,50,000$. As no different sale value or purchase is specified, this decrease is treated as the cash realised. Interest received on the opening long-term investment is

$$\text{Interest} = 5,00,000 \times \frac{12}{100} = \text{Rs } 60,000.$$

Step 2: Determine machinery purchases and goodwill acquired The machine sold had a carrying amount of Rs $(50,000 - 15,000) = \text{Rs } 35,000$. Its sale proceeds are Rs 40,000, giving a profit of Rs 5,000. Use the carrying amount, rather than the sale proceeds, when reconciling the machinery

balance:

$$6,00,000 = 4,00,000 + \text{Purchases} - 35,000 - 55,000,$$

$$\text{Purchases} = \text{Rs } 2,90,000.$$

The goodwill acquired is Rs $(1,20,000 - 40,000) =$ Rs $80,000$. Depreciation is non-cash; the profit on disposal does not create an additional receipt beyond the actual Rs 40,000 sale proceeds.

Step 3: Prepare the investing activities section Cash Flow Statement (Extract) for the year ended 31st March, 2015

Particulars	Amount (Rs)
Cash flows from investing activities	
Sale of 12% long-term investments	3,50,000
Sale of machinery	40,000
Dividend received	72,000
Interest received	60,000
Total cash inflows	5,22,000
Purchase of shares in Miko Ltd.	(10,00,000)
Purchase of plant and machinery	(2,90,000)
Purchase of goodwill	(80,000)
Total cash outflows	(13,70,000)
Net cash used in investing activities	**(8,48,000)**

Thus the investing section combines Rs 5,22,000 of cash receipts with Rs 13,70,000 of cash payments; brackets identify the outflows.

Step 4: Conclusion Net cash flow from investing activities is $\boxed{\text{Rs } (8,48,000)}$, i.e. a net cash outflow of Rs 8,48,000.

Quick Tip to Solve: Reconcile machinery using the sold asset's carrying amount, then include its actual sale proceeds separately in investing cash flows.

Option – II

18. What is meant by 'Block Code' ? [1 mark]

Solution:

Concept:

- Block coding allocates a separate range of code numbers to each broad class of accounts.
- Individual accounts within a class receive numbers from its allotted block.

Step 1: Explain the coding method A block code reserves a continuous group or range of numbers for one category of accounts. Every account belonging to that category is assigned a number within that range, so its broad classification can be identified from its code.

Step 2: Illustrate the classification For example, codes 100–199 may be reserved for assets and 200–299 for liabilities. Cash could then have code 101 and machinery code 102; both belong to the asset block. The ranges are illustrative and are fixed by the organisation.

Step 3: Conclusion A block code is a coding system in which a block or range of numbers is allotted to each class of accounts and individual accounts are coded within that block.

Quick Tip to Solve: Remember block as a reserved range: the range identifies the class and the number identifies the account.

19. What facility is provided by a 'Query' ? [1 mark]

Solution:

Concept:

- A query requests specified information from data stored in a database.
- Selection conditions determine which records and fields appear in the query result.

Step 1: State the facility A query provides the facility to retrieve and display the required information from one or more database tables according to specified criteria. It allows the user to obtain relevant information without manually searching every stored record.

Step 2: Connect it with accounting use For example, a query can retrieve the names and balances of debtors whose outstanding balance exceeds a specified amount. The user selects the required fields and states the condition, and the database returns the matching records as useful information.

Step 3: Conclusion A query enables retrieval of specific information from one or more database tables on the basis of specified conditions.

Quick Tip to Solve: In a query answer, mention both retrieval of information and the criteria used to select it.

20. State any two advantages and any two limitations of computerized accounting system. [4 marks]

Solution:

Concept:

- A computerised accounting system processes transactions through accounting software and stores the resulting records electronically.
- Its advantages arise from automatic processing, while its limitations include implementation requirements and risks to stored data.

Step 1: Advantage 1: Speed Computers process a large number of accounting transactions rapidly. Once a transaction is correctly entered, the software can post it to the relevant accounts and update balances and reports automatically. Thus, preparing a trial balance or financial report takes much less time than repeated manual posting and calculation. This helps management obtain accounting information promptly for decisions.

Step 2: Advantage 2: Accuracy The system performs arithmetic calculations and postings according to its programmed instructions, reducing calculation and posting errors associated with manual work. For example, an amount entered in a voucher can update the relevant ledger accounts without being copied separately into each record. This accuracy depends on correct input and appropriate software settings; the computer cannot make incorrect source data correct by itself.

Step 3: Limitation 1: Cost of training Employees need training to operate the accounting software, enter vouchers correctly, use its controls and generate reports. Training involves expenditure and time, and further training may be necessary when the software changes. Staff unfamiliar with the system may make entry or operating mistakes, so purchasing the software alone is insufficient for effective use.

Step 4: Limitation 2: Data corruption and loss Accounting records may be corrupted or lost because of a virus, hardware failure or an accidental deletion. Such a loss can interrupt accounting work and make the records temporarily unavailable. Regular backups and suitable protection are therefore necessary to preserve records and restore them when required.

Step 5: Conclusion Two advantages are speed and accuracy. Two limitations are the cost of training and the risk of data corruption or loss.

Quick Tip to Solve: State two benefits and two limitations separately, and explain how each affects accounting work.

21. Explain any two generic considerations before sourcing an accounting software. [4 marks]

Solution:

Concept:

- Before sourcing accounting software, an organisation should assess whether it suits its accounting needs and whether its total cost is justified by the expected benefits.
- Generic considerations apply to the selection decision regardless of the particular software supplier.

Step 1: Flexibility Flexibility means the software's ability to accommodate changes in the organisation's accounting requirements. Before selection, the business should examine whether it permits suitable changes in the chart of accounts, the format of reports and the handling of transactions. It should also consider whether the system can cope with an increase in the number of users or the volume of transactions as the business grows.

For example, a business planning to open additional branches should consider whether the software can support its expanded operations and produce the required reports. Software that meets only the present, narrow requirements may become unsuitable when the business changes. A flexible package reduces the need to replace the entire system merely because the reporting or operating requirements develop.

Step 2: Cost and benefit analysis The organisation should compare the total cost of acquiring and operating the software with the benefits expected from its use. Cost includes the purchase or licence price and related expenditure on suitable hardware, installation, staff training, maintenance and upgrades. The purchase price alone therefore does not show the full financial commitment.

Benefits may include faster processing, timely reports, reduced repetitive work and improved accuracy of routine calculations. The package should offer benefits that justify its overall cost within the organisation's budget. An expensive system with facilities the business will not use may be uneconomical, while a cheaper system that cannot meet essential accounting needs may also be a poor choice.

Step 3: Conclusion Two generic considerations are flexibility to meet changing accounting needs and cost-benefit analysis of the complete system.

Quick Tip to Solve: For each consideration, state its meaning and explain what the organisation should check before purchase.

22. Give the names of two commonly available DBMS software and explain any three advantages of DBMS. [4 marks]

Solution:

Concept:

- A Database Management System (DBMS) is software used to define, create, store, retrieve and maintain an organised database.
- A DBMS manages common data centrally so that authorised users and applications can use reliable information without maintaining separate, inconsistent copies.

Step 1: Two commonly available DBMS packages Two examples are Microsoft Access and Oracle. Both provide facilities to organise data in related tables, retrieve required information through queries and control access to the stored data. A spreadsheet application is not the appropriate example here because the question specifically asks for database management software.

Step 2: Advantage 1: Reduced data redundancy and inconsistency Data redundancy means unnecessary duplication of the same data in different files. A DBMS allows common information to be stored once and used by different applications. For example, a customer's address can be kept in a customer table instead of being separately maintained in every sales record. Updating the common record reduces the risk of different applications showing different addresses. Thus, controlled duplication saves storage and improves consistency.

Step 3: Advantage 2: Sharing of data A database can be accessed by different authorised users and departments according to their needs. For example, the sales department may use customer records to prepare invoices while the accounts department uses the same records to follow up outstanding balances. Common data need not be recreated for each user. The DBMS coordinates access, making shared information available for different tasks while preserving its integrity.

Step 4: Advantage 3: Improved data security A DBMS supports access controls through user accounts, passwords and permissions. Different users can be given different rights, such as viewing records, entering transactions or modifying master data. For instance, a clerk may enter sales transactions while only an authorised supervisor can alter customer credit limits. Restricting access helps prevent unauthorised disclosure, alteration or deletion of accounting information.

Step 5: Conclusion Microsoft Access and Oracle are two DBMS packages. Three advantages of DBMS are reduced data redundancy and inconsistency, sharing of data among authorised users, and improved security through controlled access.

Quick Tip to Solve: Name two actual DBMS packages, then explain each advantage with its effect on a shared accounting database.

23. Explain various elements of Charts/Graphs. [6 marks]

Solution:

Concept:

- A chart or graph presents numerical data visually so that comparisons, patterns and trends can be understood easily.
- A chart combines a plotting region, titles, axes, data series and explanatory features. Each element helps the reader identify what is measured and interpret its value correctly.

Step 1: Chart area and plot area The chart area is the entire area occupied by the chart, including its title, plot area, legend and other chart elements. The plot area is the region within the axes where the actual data are plotted, such as the area containing the columns in a column chart. Thus, the plot area forms part of the larger chart area.

Step 2: Chart title and axis titles The chart title states the subject of the chart, for example, Monthly Sales for 2017. Axis titles describe what each axis represents and, where necessary, give the units. For example, the horizontal axis title may be Month and the vertical axis title may be Sales (Rs). Clear titles allow the reader to understand both the subject and the quantities being compared.

Step 3: Category axis, value axis and scale In a typical column or line chart, the horizontal X-axis is the category axis: it shows categories such as months, products or departments. The vertical Y-axis is the value axis: it shows the numerical values measured for those categories. Tick marks and their labels indicate positions on the scale. A suitable scale makes magnitudes and differences readable. In an XY scatter chart, both axes represent numerical values; in a pie chart, axes are not used.

Step 4: Data points and data series A data point represents one individual value plotted on the chart, for example, January sales. It may appear as a column, a point on a line or a slice of a pie. A data series is a collection of related data points, such as the sales figures of one product for all months. A chart may contain more than one series to compare related sets of values, for example, monthly sales of two products.

Step 5: Legend and data labels The legend is a key that identifies the colours, patterns or symbols assigned to the different data series. For example, it may show that blue columns represent Product A and red columns represent Product B. Data labels provide information next to individual data points, such as their values, category names or percentages. They help the reader obtain precise information without estimating every value from the axis scale.

Step 6: Gridlines Gridlines are reference lines extending across the plot area from positions on the axes. Major gridlines correspond to the major scale divisions; minor gridlines, if displayed, show intermediate divisions. They help the reader align a plotted point or column with the value scale and compare values more accurately. They should support readability without obscuring the plotted data.

Step 7: Conclusion The principal chart elements are the chart area, plot area, chart title, axis titles, axes and scale, data points, data series, legend, data labels and gridlines. Together they identify the data, show its magnitude and make comparisons clear.

Quick Tip to Solve: Explain the chart from outside to inside: whole chart, plotting region, titles and axes, then data, legend, labels and gridlines.