CBSE Class 12 Accountancy Question Paper 2019 with Solution PDF-Set 67-1-1

Question Paper with Solutions

Conducted by the Central Board of Secondary Education (CBSE)

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

General Instructions

(i) This question paper contains **two** parts **A** and **B**.

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

(iii) Part **B** has **two** options : Analysis of Financial Statements and 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)

ACCOUNTANCY

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

1. Atul and Neera were partners in a firm sharing profits in the ratio of 3 : 2. They admitted Mitali as a new partner. Goodwill of the firm was valued at Rs 2,00,000. Mitali brings her share of goodwill premium of Rs 20,000 in cash, which is entirely credited to Atul's Capital Account. Calculate the new profit sharing ratio. [1 mark]

Solution:

Concept:

- Goodwill premium compensates the old partners in their sacrificing ratio.
- New share = old share minus sacrificed share; the incoming partner's share equals premium divided by total goodwill.

Step 1: Find Mitali's share Mitali's share of profit is $20,000/2,00,000 = 1/10$. Since her entire premium is credited to Atul, Atul alone sacrifices this share; Neera makes no sacrifice.

Step 2: Calculate the revised shares Atul's new share is $3/5 - 1/10 = 1/2$. Neera retains $2/5$, and Mitali receives $1/10$. Expressing all shares with denominator 10 gives $5/10 : 4/10 : 1/10$; these shares sum to one.

Step 3: Conclusion The new profit sharing ratio of Atul, Neera and Mitali is $\boxed{5:4:1}$.

Quick Tip to Solve: Credit of the entire premium to one partner identifies the sole sacrificing partner.

2. What is meant by 'Issued Capital ? [1 mark]

Solution:

Concept:

- Authorised capital is the maximum share capital permitted by the memorandum.
- Issued capital identifies the part of authorised capital offered for subscription.

Step 1: Identify the offered portion A company need not offer its entire authorised capital for subscription. The portion which it actually issues or offers for subscription is called issued capital.

Step 2: Distinguish issue from subscription The definition concerns shares offered, irrespective of whether all those shares are subscribed. Subscribed capital refers to the part actually taken up by subscribers.

Step 3: Conclusion Issued capital is that part of the authorised share capital which is issued or offered for subscription.

Quick Tip to Solve: Remember: authorised is the permitted ceiling; issued is the portion offered.

OR

2. What is meant by 'Employees Stock Option Plan' ? [1 mark]

Solution:

Concept:

- An employee stock option gives an employee a right to acquire shares under a company scheme.
- The exercise price and exercise period are specified in advance.

Step 1: Explain the option Under an Employees Stock Option Plan, the company grants eligible employees a right to purchase or subscribe for its shares at a predetermined price during a specified period.

Step 2: Explain its purpose This right is an option: the employee may exercise it subject to the scheme conditions. It links employee rewards with ownership of the company and is commonly used to motivate and retain employees.

Step 3: Conclusion An Employees Stock Option Plan gives employees the right to buy company shares at a predetermined price within a specified period.

Quick Tip to Solve: In an ESOP definition, include employees, the right to shares, price and time.

3. Differentiate between Dissolution of Partnership and Dissolution of a Partnership Firm on the basis of 'Court's Intervention.' [1 mark]

Solution:

Concept:

- Dissolution of partnership changes the existing relationship among partners while the firm may continue.
- Dissolution of the firm ends the partnership business and may be ordered by a court.

Step 1: Consider dissolution of partnership On the stated basis, dissolution of partnership takes place without court intervention, for example when partners agree to change their relationship on admission or retirement while the firm continues.

Step 2: Consider dissolution of the firm Dissolution of a partnership firm may take place with court intervention: a court can order dissolution on legally recognised grounds. It can also occur without court intervention by agreement or otherwise.

Step 3: Conclusion Dissolution of partnership: without court intervention. Dissolution of a partnership firm: may occur with court intervention.

Quick Tip to Solve: Use "may" for court intervention in firm dissolution; it is not compulsory in every case.

4. What is meant by 'Gaining Ratio' on retirement of a partner ? [1 mark]

Solution:

Concept:

- Continuing partners may acquire the share of the retiring partner.
- A partner's gain is New share − Old share.

Step 1: Determine individual gains For each continuing partner, subtract the old share of profit from the new share after retirement. A positive difference represents the additional share acquired by that partner.

Step 2: Form the ratio Compare the gains of the continuing partners and reduce them to a ratio. This ratio governs compensation for the retiring partner's goodwill because it identifies the benefit received by each continuing partner.

Step 3: Conclusion Gaining ratio is the ratio in which the continuing partners acquire the retiring partner's share of profits.

Quick Tip to Solve: For a gain always subtract old share from new share, in that order.

OR

4. P, Q and R were partners in a firm. On 31st March, 2018 R retired. The amount payable to R Rs 2,17,000 was transferred to his loan account. R agreed to receive interest on this amount as per the provisions of Partnership Act, 1932. State the rate at which interest will be paid to R. [1 mark]

Solution:

Concept:

- An unpaid amount due to a retiring partner may be transferred to a loan account.
- The applicable statutory interest rate in the absence of an agreed rate is 6% per annum.

Step 1: Identify the applicable rate R agrees to receive interest according to the provisions of the Partnership Act, 1932. No different contractual rate is stated, so the statutory rate applies to the unpaid balance.

Step 2: Apply it to the loan The amount transferred to R's loan account is Rs 2,17,000. Interest on that outstanding loan is payable at 6% per annum; the amount of the loan does not change this rate.

Step 3: Conclusion R will receive interest at $\boxed{6\% \text{ per annum}}$.

Quick Tip to Solve: A retiring partner's unpaid balance earns 6 percent annually when the statutory rate applies.

5. Chhavi and Neha were partners in a firm sharing profits and losses equally. Chhavi withdrew a fixed amount at the beginning of each quarter. Interest on drawings is charged @ 6% p.a. At the end of the year, interest on Chhavi's drawings amounted to Rs 900. Pass necessary journal entry for charging interest on drawings. [1 mark]

Solution:

Concept:

- Interest on drawings is charged to the partner who withdrew funds.
- The partner's capital account is debited and Interest on Drawings Account is credited.

Step 1: Identify the charge The question already gives interest on Chhavi's drawings as Rs 900. Thus the quarterly drawing amount need not be found. Chhavi bears the whole charge; equal profit sharing does not divide this debit between the partners.

Step 2: Record the journal entry Journal of Chhavi and Neha

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Chhavi's Capital A/c Dr.		900	
	To Interest on Drawings A/c			900
	(Being interest on Chhavi's drawings charged)			

Interest on Drawings Account is subsequently transferred to Profit and Loss Appropriation Account.

Step 3: Conclusion Debit Chhavi's Capital Account and credit Interest on Drawings Account with Rs 900.

Quick Tip to Solve: When interest is already stated, journalise that amount without calculating quarterly drawings.

6. How are Specific donations treated while preparing final accounts of a 'Not-For-Profit Organisation' ?

[1 mark]

Solution:

Concept:

- A specific donation is received for a stated purpose and is restricted to that purpose.
- Such receipts are credited to the relevant specific fund rather than general income.

Step 1: Classify the donation A donation earmarked for a specific purpose, such as a building fund, is treated as a capital receipt. It is added to the corresponding specific fund shown on the liabilities side of the Balance Sheet.

Step 2: Present it in final accounts It is not credited as ordinary income in the Income and Expenditure Account. Related expenditure is adjusted against the specific fund according to its purpose, leaving the unutilised balance in that fund.

Step 3: Conclusion Specific donations are capital receipts added to the relevant specific fund on the liabilities side of the Balance Sheet.

Quick Tip to Solve: The donor's specified purpose signals a separate fund rather than unrestricted income.

OR

6. State the basis of accounting of preparing 'Income and Expenditure Account' of a Not-For-Profit Organisation. [1 mark]

Solution:

Concept:

- The accrual basis recognises income when earned and expenses when incurred.
- The Income and Expenditure Account determines the surplus or deficit for the accounting period.

Step 1: Identify the basis The Income and Expenditure Account is prepared on the accrual basis of accounting. It includes revenue income earned and revenue expenses incurred during the current accounting period, regardless of cash receipt or payment.

Step 2: Explain the period adjustments Outstanding expenses and accrued income are included for the current period. Prepaid expenses and income received in advance are excluded from current-period charges or income. Capital receipts and capital payments do not form ordinary revenue items.

Step 3: Conclusion The Income and Expenditure Account is prepared on the accrual basis of accounting.

Quick Tip to Solve: Match income and expenditure to the period to which they belong, rather than cash movement.

7. The capital of the firm of Anuj and Benu is Rs 10,00,000 and the market rate of interest is 15%. Annual salary to the partners is Rs 60,000 each. The profit for the last three years were Rs 3,00,000, Rs 3,60,000 and Rs 4,20,000. Goodwill of the firm is to be valued on the basis of two years purchase of last three years average super profits. Calculate the goodwill of the firm. [3 marks]

Solution:

Concept:

- Goodwill is the value of the firm's ability to earn more than the normal return on its capital. Under the super profit method, goodwill equals average super profit multiplied by the agreed years' purchase.
- Normal profit is capital employed multiplied by the normal rate of return. Partners' salaries must be deducted from the average reported profit to find the maintainable profit available as return on capital.

Step 1: Calculate average profit and partners' salaries The three annual profits have equal weight. Therefore,

$$\text{Average profit} = \frac{3,00,000 + 3,60,000 + 4,20,000}{3} = \text{Rs } 3,60,000.$$

There are two partners, Anuj and Benu, each entitled to an annual salary of Rs 60,000. The total annual salary is therefore Rs 1,20,000. The adjusted average profit is

$$\text{Rs } 3,60,000 - \text{Rs } 1,20,000 = \text{Rs } 2,40,000.$$

The salary is a charge for the partners' services and must be allowed before measuring the excess return on capital.

Step 2: Calculate normal profit, super profit and goodwill At the market rate of interest of 15%, the normal annual return on capital is

$$\text{Normal profit} = 10,00,000 \times \frac{15}{100} = \text{Rs } 1,50,000.$$

The average super profit is the adjusted average profit less this normal return:

$$\text{Average super profit} = 2,40,000 - 1,50,000 = \text{Rs } 90,000.$$

For two years' purchase, the valuation is

$$\text{Goodwill} = 90,000 \times 2 = \text{Rs } 1,80,000.$$

As capital, interest rate and salary are unchanged for all three years, adjusting the average profit gives the same result as first computing each year's super profit and then averaging it.

Step 3: Conclusion The goodwill of Anuj and Benu's firm is $\boxed{\text{Rs } 1,80,000}$.

Quick Tip to Solve: Deduct the salaries of both partners before comparing average profit with the normal return on capital.

8. How the following items for the year ended 31st March, 2018 will be presented in the financial statements of Aisko Club :

Particulars	Debit Amount (Rs)	Credit Amount (Rs)
Tournament Fund	–	1,50,000
Tournament Fund Investments	1,50,000	–
Income from Tournament Fund Investments	–	18,000
Tournament Expenses	12,000	–

Additional Information :

Interest Accrued on Tournament Fund Investments Rs 6,000 [3 marks]

Solution:

Concept:

- A tournament fund is a specific purpose fund. Income from its investments and related accrued interest are added to that fund, while tournament expenses are deducted from it.
- Accrued interest is recognised even though it has not yet been received. It increases both the specific fund and the assets shown in the Balance Sheet.

Step 1: Determine the closing tournament fund Investment income for the year includes both the income already recorded and the interest accrued:

$$\text{Total fund income} = 18,000 + 6,000 = \text{Rs } 24,000.$$

The tournament expenses of Rs 12,000 are charged against the specific fund. Consequently,

$$\text{Closing fund} = 1,50,000 + 24,000 - 12,000 = \text{Rs } 1,62,000.$$

Because the fund is sufficient to meet the entire expense, no tournament expense or tournament investment income is transferred to the general Income and Expenditure Account. Both belong to this earmarked fund.

Step 2: Present the financial statement extracts Balance Sheet of Aisko Club as at 31st March, 2018 (extract)

Liabilities	Rs	Assets	Rs
Tournament Fund	1,50,000	Tournament Fund	
Add: Investment income	18,000	Investments	1,50,000
Add: Accrued interest	6,000	Interest accrued	
Subtotal	1,74,000	on fund investments	6,000
Less: Tournament expenses	(12,000)		
Closing Tournament Fund	1,62,000		

This is an extract: unrelated assets and liabilities are omitted, so its two sides need not total to the same amount. The fund investments remain at Rs 1,50,000; accrued interest is shown separately as an asset rather than being added to the cost of those investments. The Income and Expenditure Account has no entry for these tournament fund items.

Step 3: Conclusion Show the Tournament Fund at Rs 1,62,000 on the liabilities side, investments at Rs 1,50,000 and accrued interest at Rs 6,000 on the assets side.

Quick Tip to Solve: For a specific fund, add accrued investment income to the fund and also show it separately as an asset.

9. Garvit Ltd. invited applications for issuing 3,000, 11% Debentures of Rs 100 each at a discount of 6%. The full amount was payable on application. Applications were received for 3,600 debentures. Applications for 600 debentures were rejected and the application money was refunded. Debentures were allotted to the remaining applicants. Pass the necessary journal entries for the above transactions in the books of Garvit Ltd. [3 marks]

Solution:

Concept:

- Debentures issued at a discount are credited at their face value. The difference between face value and issue proceeds is debited to Discount on Issue of Debentures Account.
- Application money relating to rejected applications is refunded. Only the money for accepted applications is transferred to the debenture account on allotment.

Step 1: Calculate application receipts, refund and discount The full issue price is payable on application. The discount per debenture is $100 \times 6\% = \text{Rs } 6$, so each applicant pays Rs 94 per

debenture.

$$\text{Money received} = 3,600 \times 94 = \text{Rs } 3,38,400,$$
$$\text{Refund for rejected applications} = 600 \times 94 = \text{Rs } 56,400,$$
$$\text{Money retained} = 3,000 \times 94 = \text{Rs } 2,82,000,$$
$$\text{Discount on issue} = 3,000 \times 6 = \text{Rs } 18,000.$$

The 11% rate is the coupon rate and does not determine the issue price. No interest entry is required for these issue transactions.

Step 2: Record the necessary journal entries Journal of Garvit Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Debenture Application A/c (Being application money received for 3,600 debentures at Rs 94 each)		3,38,400	3,38,400
	Debenture Application A/c Dr. To Bank A/c (Being money refunded on 600 rejected applications)		56,400	56,400
	Debenture Application A/c Dr. Discount on Issue of Debentures A/c Dr. To 11% Debentures A/c (Being 3,000 debentures of Rs 100 allotted at a discount of 6%)		2,82,000 18,000	3,00,000

The Debenture Application Account closes because its receipt credit of Rs 3,38,400 equals the refund debit of Rs 56,400 plus the allotment transfer debit of Rs 2,82,000.

Step 3: Conclusion The company records Rs 3,00,000 as 11% Debentures, Rs 18,000 as discount on issue, and refunds Rs 56,400 to rejected applicants.

Quick Tip to Solve: Compute every receipt and refund using the issue price of Rs 94, but credit debentures at face value.

OR

9. On 1st April 2015, P Ltd. Issued 6,000 12% Debentures of Rs 100 each at par redeemable at a premium of 7%. The Debentures were to be redeemed at the end of third year. Prepare Loss on issue of 12% Debentures Account. [3 marks]

Solution:

Concept:

- When debentures are issued at par but redeemed at a premium, the redemption premium is a loss on issue. The loss is debited on issue and written off over the period for which the debentures remain outstanding.
- Where the entire issue remains outstanding until a single redemption date, an equal amount of loss is written off in each year of its life.

Step 1: Calculate the loss and its annual write-off The face value of the issue is

$$6,000 \times \text{Rs } 100 = \text{Rs } 6,00,000.$$

There is no discount because the issue is at par. However, redemption at a premium of 7% creates a loss on issue of

$$6,00,000 \times \frac{7}{100} = \text{Rs } 42,000.$$

The debentures are issued on 1st April, 2015 and redeemed at the end of the third year, on 31st March, 2018. Since the whole issue remains outstanding for three years, the annual write-off is

$$\frac{42,000}{3} = \text{Rs } 14,000.$$

The 12% coupon determines interest on the debt; it does not enter the calculation of the premium or the loss on issue.

Step 2: Prepare the Loss on Issue Account Loss on Issue of 12% Debentures Account in the books of P Ltd.

Dr. Particulars	Amount (Rs)	Particulars Cr.	Amount (Rs)
2015, Apr. 1		2016, Mar. 31	
To Premium on Redemption of Debentures A/c	42,000	By Statement of Profit and Loss	14,000
		By Balance c/d	28,000
Total	42,000	Total	42,000
2016, Apr. 1		2017, Mar. 31	
To Balance b/d	28,000	By Statement of Profit and Loss	14,000
		By Balance c/d	14,000
Total	28,000	Total	28,000
2017, Apr. 1		2018, Mar. 31	
To Balance b/d	14,000	By Statement of Profit and Loss	14,000
Total	14,000	Total	14,000

The debit balance carried forward falls from Rs 28,000 to Rs 14,000 and then to nil. Thus the entire loss is charged to the Statement of Profit and Loss before redemption.

Step 3: Conclusion Loss on issue is Rs 42,000, written off at Rs 14,000 each year ending 31st March, 2016, 2017 and 2018.

Quick Tip to Solve: Use the redemption premium to calculate the loss; divide it equally because all debentures remain outstanding for three years.

10. Unilink Ltd. had outstanding Rs 12,00,000, 9% debentures on 1st April, 2014 redeemable at a premium of 8% in two equal annual instalments starting from 31st March, 2018. The company had a balance of Rs 3,00,000 in Debenture Redemption Reserve on 31st March, 2017. Pass the necessary journal entries for redemption of debentures in the books of Unilink Ltd. for the year ended 31st March, 2018. [3 marks]

Solution:

Concept:

- The annual instalment is half the face value outstanding: Rs $12,00,000/2 =$ Rs $6,00,000$. The redemption premium is calculated on the face value redeemed.
- Under the rules applicable to this question, DRR must equal 25% of the total debenture issue, while investment in specified securities is 15% of the debentures falling due during the year.

Step 1: Check reserve and compute the required investment Required DRR is $25\% \times$ Rs $12,00,000 =$ Rs $3,00,000$. The existing reserve already equals this amount, so no further transfer from Surplus in Statement of Profit and Loss is needed. The DRR remains in place because the second instalment is still outstanding. Investment required by 30th April, 2017 is $15\% \times$ Rs $6,00,000 =$ Rs $90,000$. The first instalment carries premium of $8\% \times$ Rs $6,00,000 =$ Rs $48,000$; hence the amount payable is Rs 6,48,000. The 9% coupon rate does not enter this redemption calculation.

Step 2: Record investment and its realisation Journal of Unilink Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
30-4-2017	Debenture Redemption Investment A/c Dr.		90,000	
	To Bank A/c			90,000
	(Being the required investment made for debentures due for redemption)			
31-3-2018	Bank A/c Dr.		90,000	
	To Debenture Redemption Investment A/c			90,000
	(Being the investment realised at its book value)			

No separate investment income or change in its value is specified.

Step 3: Record the first instalment becoming due and its payment Journal of Unilink Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	9% Debentures A/c Dr.		6,00,000	
	Premium on Redemption of Debentures A/c Dr.		48,000	
	To Debentureholders A/c			6,48,000
	(Being the first instalment due at an 8% redemption premium)			
31-3-2018	Debentureholders A/c Dr.		6,48,000	
	To Bank A/c			6,48,000
	(Being the amount due paid to debentureholders)			

The premium liability, provided when the debentures were issued, is used when redemption becomes due. Interest entries are outside the requested redemption entries.

Step 4: Conclusion The first instalment of Rs 6,00,000 is redeemed for Rs 6,48,000. No additional DRR is required; Rs 6,00,000 face value of debentures remains outstanding.

Quick Tip to Solve: Compute DRI on the instalment due, but check DRR against the total issue before transferring anything.

11. Ankit, Bobby and Kartik were partners in a firm sharing profits in the ratio 4 : 3 : 3. The firm was dissolved on 31-3-2018. Pass the necessary Journal entries for the following transactions after various assets (other than cash and bank) and third party liabilities had been transferred to Realisation Account :

(i) The firm had stock of Rs 80,000. Ankit took over 50% of the stock at a discount of 20% while the remaining stock was sold off at a profit of 30% on cost.

(ii) A liability under a suit for damages included in creditors was settled at Rs 32,000 as against only Rs 13,000 provided in the books. Total creditors of the firm were Rs 50,000.

(iii) Bobby's sister's loan of Rs 20,000 was paid off along with interest of Rs 2,000.

(iv) Kartik's Loan of Rs 12,000 was settled at Rs 12,500. [4 marks]

Solution:

Concept:

- Once non-cash assets and outside liabilities have been transferred to Realisation Account, receipts from their disposal are credited to Realisation and payments to outside creditors are debited to Realisation.
- A partner taking over an asset is debited through the capital account. A partner's own loan remains separate; any settlement excess over its book amount is a realisation loss.

Step 1: (i) Record stock taken over and stock sold Ankit takes stock costing $50\% \times$ Rs $80,000 =$ Rs $40,000$. Its agreed value is Rs $40,000 \times 80\% =$ Rs $32,000$. The other half is sold for Rs $40,000 \times 130\% =$ Rs $52,000$. Since stock has already been transferred, do not credit Stock Account again.

Journal of the firm (31-3-2018)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	Ankit's Capital A/c Dr.		32,000	
	To Realisation A/c			32,000
	(Being half the stock taken over at a discount of 20%)			
31-3-2018	Bank A/c Dr.		52,000	
	To Realisation A/c			52,000
	(Being the remaining stock sold at a profit of 30% on cost)			

Step 2: (ii) Settle creditors including the damages claim The total book creditors of Rs 50,000 include the provision of Rs 13,000. Other creditors are therefore Rs 37,000. Add the actual damages payment of Rs 32,000: the total settlement is Rs $37,000 +$ Rs $32,000 =$ Rs $69,000$. The higher claim produces an additional realisation loss of Rs 19,000, automatically captured by the following payment entry.

Journal of the firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	Realisation A/c Dr.		69,000	
	To Bank A/c			69,000
	(Being creditors including the damages claim settled)			

Step 3: (iii) Pay Bobby's sister's loan and interest Bobby's sister is an outside lender. Her loan has already been transferred with third party liabilities, so payment of the principal and the additional interest both pass through Realisation Account. Total payment is Rs $20,000 +$ Rs $2,000 =$ Rs $22,000$.

Journal of the firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	Realisation A/c Dr.		22,000	
	To Bank A/c			22,000
	(Being Bobby's sister's loan paid together with interest)			

Step 4: (iv) Settle Kartik's own loan Kartik is a partner, so his own loan was not part of the transfer of third party liabilities. Debit his Loan Account with its book balance of Rs 12,000; debit Realisation with the excess settlement of Rs 500. The Bank credit must equal the actual payment of Rs 12,500.

Journal of the firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31-3-2018	Kartik's Loan A/c Dr.		12,000	
	Realisation A/c Dr.		500	
	To Bank A/c			12,500
	(Being Kartik's loan settled at Rs 500 above its book balance)			

Step 5: Conclusion Ankit is debited Rs 32,000; stock-sale receipts are Rs 52,000. Payments are Rs 69,000 for creditors, Rs 22,000 for the sister's loan with interest, and Rs 12,500 for Kartik's loan settlement.

Quick Tip to Solve: Distinguish a partner's own loan from a relative's loan: only the former remains outside the transfer to Realisation.

12. Radhika, Bani and Chitra were partners in a firm sharing profits and losses in the ratio of 2 : 3 : 1. With effect from 1st April, 2018 they decided to share future profits and losses in the ratio of 3 : 2 : 1. On that date their Balance Sheet showed a debit balance of Rs 24,000 in Profit and Loss Account and a balance of Rs 1,44,000 in General Reserve. It was also agreed that :

(a) The goodwill of the firm be valued at Rs 1,80,000.

(b) The Land (having book value of Rs 3,00,000) will be valued at Rs 4,80,000.

Pass the necessary journal entries for the above changes. [4 marks]

Solution:

Concept:

- Accumulated reserves and losses belong to the old partners in their old profit-sharing ratio, here $2:3:1$. A debit Profit and Loss balance is a loss.
- Goodwill compensation is paid by a gaining partner to a sacrificing partner: adjustment equals the goodwill value multiplied by the gain or sacrifice.
- Revaluation profit is credited in the old ratio. An increase in an asset is debited to that asset and credited to Revaluation Account.

Step 1: Calculate the change in shares Old shares of Radhika, Bani and Chitra are $2/6, 3/6, 1/6$, while new shares are $3/6, 2/6, 1/6$. Thus Radhika gains $1/6$, Bani sacrifices $1/6$, and Chitra has no change. The compensation payable by Radhika to Bani is Rs $1,80,000 \times 1/6 =$ Rs $30,000$. Goodwill need not be raised in the books: the direct capital adjustment records the compensation.

Step 2: Distribute accumulated balances and record goodwill Journal of the Firm (1 April 2018)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2018	General Reserve A/c Dr. To Radhika's Capital A/c To Bani's Capital A/c To Chitra's Capital A/c (Being reserve distributed in the old ratio 2:3:1)		1,44,000	 48,000 72,000 24,000
1-4-2018	Radhika's Capital A/c Dr. Bani's Capital A/c Dr. Chitra's Capital A/c Dr. To Profit and Loss A/c (Being accumulated loss transferred in the old ratio)		8,000 12,000 4,000	 24,000
1-4-2018	Radhika's Capital A/c Dr. To Bani's Capital A/c (Being goodwill compensation for the change in shares)		30,000	 30,000

Step 3: Record and distribute the land appreciation Increase in land value $=$ Rs $4,80,000 -$ Rs $3,00,000 =$ Rs $1,80,000$. The resulting profit belongs to the old partners: Radhika Rs 60,000, Bani Rs 90,000 and Chitra Rs 30,000.

Journal of the Firm (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1-4-2018	Land A/c Dr. To Revaluation A/c (Being land increased to its agreed value)		1,80,000	 1,80,000
1-4-2018	Revaluation A/c Dr. To Radhika's Capital A/c To Bani's Capital A/c To Chitra's Capital A/c (Being revaluation profit transferred in the old ratio)		1,80,000	 60,000 90,000 30,000

Step 4: Conclusion The required entries distribute the reserve and loss in $2:3:1$, transfer Rs 30,000 from Radhika to Bani for goodwill, and record land at Rs 4,80,000. Net capital increases are Rs 70,000, Rs 1,80,000 and Rs 50,000 respectively.

Quick Tip to Solve: Use old shares for past balances and revaluation; use only the change in shares for goodwill compensation.

13. From the following Receipts and Payments Account and additional information, prepare Income and Expenditure Account and Balance Sheet of Sears Club, Noida as on March 31, 2018.

Receipts and Payments Account of Sears Club for the year ended 31-3-2018

Receipts	Amount (Rs)	Payments	Amount (Rs)
To Balance b/d	20,000	By Stationery	23,400
To Subscriptions:		By 12% Investments	8,000
2016-17: Rs 40,000		By Electricity expenses	10,600
2017-18: Rs 94,000		By Expenses on lectures	30,000
2018-19: Rs 7,200	1,41,200	By Sports equipment	59,000
To Donations for building	40,000	By Books	40,000
To Interest on investments	800	By Balance c/d	50,000
To Government grant	17,400		
To Sale of old furniture (Book value Rs 4,000)	1,600		
Total	2,21,000	Total	2,21,000

Additional Information:

(i) The club has 200 members each paying an annual subscription of Rs 1,000. Rs 60,000 were in arrears for last year and 25 members paid in advance in the last year for the current year.

(ii) Stock of stationery on 1-4-2017 was Rs 3,000 and on 31-3-2018 was Rs 4,000. [6 marks]

Solution:

Concept:

- Income and Expenditure Account records revenue income and expenditure on the accrual basis. Capital receipts and asset purchases appear in the Balance Sheet.
- Annual subscription income equals the number of members multiplied by the annual subscription. Outstanding subscriptions are assets; subscriptions received in advance are liabilities.
- Opening capital fund equals opening assets less opening outside liabilities. A specific building donation forms a separate building fund.

Step 1: Determine subscription income and receivables Subscriptions earned for 2017-18 are $200 \times \text{Rs } 1,000 = \text{Rs } 2,00,000$. Opening advance for the current year is $25 \times \text{Rs } 1,000 = \text{Rs } 25,000$. Therefore outstanding subscriptions for the current year are

$$\text{Rs } 2,00,000 - \text{Rs } 94,000 - \text{Rs } 25,000 = \text{Rs } 81,000.$$

Of the previous year's arrears of Rs 60,000, Rs 40,000 was collected; Rs 20,000 remains recoverable. Total closing subscriptions outstanding are therefore Rs 1,01,000. The Rs 7,200 received for 2018-19 remains a liability and is excluded from this year's income.

Step 2: Calculate stationery consumed, loss and opening capital Stationery consumed equals opening stock plus purchases less closing stock:

$$\text{Rs } 3,000 + \text{Rs } 23,400 - \text{Rs } 4,000 = \text{Rs } 22,400.$$

Loss on sale of old furniture equals book value less sale proceeds:

$$\text{Rs } 4,000 - \text{Rs } 1,600 = \text{Rs } 2,400.$$

The furniture sold had an opening book value of Rs 4,000. Opening assets are cash Rs 20,000, subscriptions outstanding Rs 60,000, stationery Rs 3,000 and furniture Rs 4,000. Deduct opening subscription advance Rs 25,000:

$$\text{Opening capital fund} = \text{Rs } 87,000 - \text{Rs } 25,000 = \text{Rs } 62,000.$$

The investment purchase, sports equipment and books are capital expenditure. The unrestricted government grant is revenue income; the specific building donation is capitalised. The stated interest receipt is credited as income: no investment holding period or additional accrued interest is supplied.

Step 3: Prepare the Income and Expenditure Account Sears Club, Noida

Income and Expenditure Account for the year ended 31 March 2018

Expenditure	Amount (Rs)	Income	Amount (Rs)
To Stationery consumed	22,400	By Subscriptions	2,00,000
To Electricity expenses	10,600	By Interest on investments	800
To Expenses on lectures	30,000	By Government grant	17,400
To Loss on sale of furniture	2,400		
To Surplus transferred to capital fund	1,52,800		
Total	2,18,200	Total	2,18,200

Revenue expenditure before surplus is Rs 65,400; hence the excess of income over expenditure is Rs 2,18,200 less Rs 65,400.

Step 4: Prepare the closing Balance Sheet Sears Club, Noida

Balance Sheet as at 31 March 2018

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Capital fund: opening	62,000	Sports equipment	59,000
Add: surplus	1,52,800	Books	40,000
Closing capital fund	2,14,800	12% Investments	8,000
Building fund	40,000	Stationery stock	4,000
Subscriptions received in advance	7,200	Subscriptions outstanding:	
		Previous year	20,000
		Current year	81,000
		Cash/bank balance	50,000
Total	2,62,000	Total	2,62,000

The first two capital-fund rows are workings for the closing subtotal; only Rs 2,14,800 enters the liabilities total. No furniture remains from the stated furniture balance after its sale.

Step 5: Conclusion The club earns a surplus of Rs 1,52,800. Its closing capital fund is Rs 2,14,800, and the Balance Sheet totals Rs 2,62,000 on each side.

Quick Tip to Solve: Calculate subscriptions from members first; keep last-year arrears and next-year advances out of current income.

14. Giriija, Yatin and Zubin were partners sharing profits in the ratio 5 : 3 : 2. Zubin died on 1st August, 2015. Amount due to Zubin's executor after all adjustments was Rs 90,300. The executor was paid Rs 10,300 in cash immediately and the balance in two equal annual instalments with interest @ 6% p.a. starting from 31st March, 2017. Accounts are closed on 31st March each year.

Prepare Zubin's Executors Account till he is finally paid. [6 marks]

Solution:

Concept:

- The amount payable after all adjustments is transferred from the deceased partner's capital account to the executor's account. Subsequent interest is an expense of the firm and increases the amount payable.
- Equal instalments of principal are calculated on the unpaid principal; interest is paid in addition. Interest accrued at an intervening year-end is kept distinct from principal, since no compounding is stipulated.

Step 1: Determine principal and the payment dates Zubin's executor is initially entitled to Rs 90,300. After the immediate cash payment of Rs 10,300 on 1 August 2015, the unpaid principal is Rs 80,000. Hence each of the two annual principal instalments is $80,000/2 = \text{Rs } 40,000$. The payments fall on 31 March 2017 and 31 March 2018. The old profit-sharing ratio is not required because the amount due has already been determined after all adjustments.

Step 2: Calculate interest for each accounting year Interest from 1 August 2015 to 31 March 2016 is for eight months:

$$80,000 \times \frac{6}{100} \times \frac{8}{12} = \text{Rs } 3,200.$$

No principal is repaid during 2016–17, so that year's interest is $80,000 \times 6\% = \text{Rs } 4,800$. Thus the first payment includes principal Rs 40,000 and accumulated simple interest Rs 8,000, giving Rs 48,000. After this payment, principal outstanding is Rs 40,000. Interest for 2017–18 is therefore $40,000 \times 6\% = \text{Rs } 2,400$, and the final payment is Rs 42,400.

Step 3: Prepare the executor's account Zubin's Executor's Account (Amounts in Rs)

Dr.	Particulars	Amount	Particulars	Amount	Cr.
	2015 Aug. 1: To Cash	10,300	2015 Aug. 1: By Zubin's Capital	90,300	
	2016 Mar. 31: To Balance c/d	83,200	2016 Mar. 31: By Interest	3,200	
	Total	93,500	Total	93,500	
	2017 Mar. 31: To Bank	48,000	2016 Apr. 1: By Balance b/d	83,200	
	2017 Mar. 31: To Balance c/d	40,000	2017 Mar. 31: By Interest	4,800	
	Total	88,000	Total	88,000	
	2018 Mar. 31: To Bank	42,400	2017 Apr. 1: By Balance b/d	40,000	
			2018 Mar. 31: By Interest	2,400	
	Total	42,400	Total	42,400	

The balance brought down on 1 April 2016 comprises principal Rs 80,000 and accrued interest Rs 3,200. The following year's interest is charged on the principal Rs 80,000. After the final payment there is no amount outstanding.

Step 4: Conclusion The executor receives Rs 10,300 immediately, Rs 48,000 on 31 March 2017 and Rs 42,400 on 31 March 2018. Total interest is Rs 10,400 and the account is finally settled on 31 March 2018.

Quick Tip to Solve: Keep the eight-month interest accrued before the first full year separate from the Rs 80,000 principal when calculating simple interest.

15. Sonu and Rajat started a partnership firm on April 1, 2017. They contributed Rs 8,00,000 and Rs 6,00,000 respectively as their capitals and decided to share profits and losses in the ratio of 3 : 2. The partnership deed provided that Sonu was to be paid a salary of Rs 20,000 per month and Rajat a commission of 5% on turnover. It also provided that interest on capital be allowed @ 8% p.a. Sonu withdrew Rs 20,000 on 1st December, 2017 and Rajat withdrew Rs 5,000 at the end of each month. Interest on drawings was charged @ 6% p.a. The net profit as per Profit and Loss Account for the year ended 31st March, 2018 was Rs 4,89,950. The turnover of the firm for the year ended 31st March, 2018 amounted to Rs 20,00,000. Pass necessary journal entries for the above transactions in the books of Sonu and Rajat. [6 marks]

Solution:

Concept:

- Salary, commission and interest on capital are appropriations of profit under the partnership deed. Interest on drawings is credited to Profit and Loss Appropriation Account and debited to the respective partners.
- Interest on a single drawing is calculated for its actual outstanding period. Equal drawings at each month-end remain outstanding for an average of $5\frac{1}{2}$ months over a full year. The residual profit is shared in the agreed ratio $3 : 2$.

Step 1: Calculate the deed-based appropriations Sonu's annual salary is $20,000 \times 12 = \text{Rs } 2,40,000$. Rajat's commission on turnover is $20,00,000 \times 5\% = \text{Rs } 1,00,000$. Their capitals were invested for the entire financial year, so interest on capital is Rs 64,000 for Sonu and Rs 48,000 for Rajat. Total interest on capital is Rs 1,12,000.

Step 2: Calculate interest on drawings and distributable profit Sonu's drawing on 1 December remains outstanding for four months. Therefore his interest is $20,000 \times 6\% \times 4/12 = \text{Rs } 400$. Rajat's total drawings are $5,000 \times 12 = \text{Rs } 60,000$; because they occur at each month-end, interest is $60,000 \times 6\% \times 5.5/12 = \text{Rs } 1,650$.

$$\begin{aligned}\text{Profit available} &= 4,89,950 + 400 + 1,650 = 4,92,000,\\ \text{Residual profit} &= 4,92,000 - 2,40,000 - 1,00,000 - 1,12,000\\ &= \text{Rs } 40,000.\end{aligned}$$

Sonu's share is Rs 24,000 and Rajat's share is Rs 16,000. The whole available profit is thereby appropriated.

Step 3: Record capital and drawings Journal of Sonu and Rajat (Amounts in Rs)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
1 Apr. 2017	Bank A/c Dr.		14,00,000	
	To Sonu's Capital A/c			8,00,000
	To Rajat's Capital A/c			6,00,000
	(Being initial capitals introduced)			
1 Dec. 2017	Sonu's Drawings A/c Dr.		20,000	
	To Bank A/c			20,000
	(Being cash withdrawn by Sonu)			
2017–18	Rajat's Drawings A/c Dr.		60,000	
	To Bank A/c			60,000
	(Being Rs 5,000 withdrawn at each month-end, summarised)			

Step 4: Transfer profit and record appropriations Journal (continued); all entries dated 31 March 2018

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Profit and Loss A/c Dr.		4,89,950	
	To Profit and Loss Appropriation A/c			4,89,950
	(Being net profit transferred for appropriation)			
	Sonu's Capital A/c Dr.		400	
	Rajat's Capital A/c Dr.		1,650	
	To Profit and Loss Appropriation A/c			2,050
	(Being interest on drawings charged)			
	Profit and Loss Appropriation A/c Dr.		1,12,000	
	To Sonu's Capital A/c			64,000
	To Rajat's Capital A/c			48,000
	(Being interest on capital allowed at 8% p.a.)			
	Profit and Loss Appropriation A/c Dr.		2,40,000	
	To Sonu's Capital A/c			2,40,000
	(Being annual salary allowed to Sonu)			
	Profit and Loss Appropriation A/c Dr.		1,00,000	
	To Rajat's Capital A/c			1,00,000
	(Being Rajat's commission at 5% of turnover)			
	Profit and Loss Appropriation A/c Dr.		40,000	
	To Sonu's Capital A/c			24,000
	To Rajat's Capital A/c			16,000
	(Being residual profit distributed in ratio 3:2)			

Step 5: Close the drawings accounts Journal (continued); dated 31 March 2018

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Sonu's Capital A/c Dr.		20,000	
	Rajat's Capital A/c Dr.		60,000	
	To Sonu's Drawings A/c			20,000
	To Rajat's Drawings A/c			60,000
	(Being drawings transferred to capitals)			

These entries use fluctuating capital accounts because the deed does not specify fixed capitals. Each journal entry has equal debit and credit totals.

Step 6: Conclusion Interest on drawings is Rs 400 for Sonu and Rs 1,650 for Rajat. After salary, commission and interest on capital, the remaining profit of Rs 40,000 is credited to Sonu and Rajat in amounts of Rs 24,000 and Rs 16,000 respectively.

Quick Tip to Solve: For equal month-end drawings use 5.5 months, and add interest on drawings to net profit before deducting the deed-based appropriations.

OR

15. Jay, Vijay and Karan were partners of an architect firm sharing profits in the ratio of 2 : 2 : 1. Their partnership deed provided the following :

(i) A monthly salary of Rs 15,000 each to Jay and Vijay.

(ii) Karan was guaranteed a profit of Rs 5,00,000 and Jay guaranteed that he will earn an annual fee of Rs 2,00,000. Any deficiency arising because of guarantee to Karan will be borne by Jay and Vijay in the ratio of 3 : 2.

During the year ended 31st March, 2018 Jay earned fee of Rs 1,75,000 and the profits of the firm amounted to Rs 15,00,000.

Showing your workings clearly prepare Profit and Loss Appropriation Account and the Capital Account of Jay, Vijay and Karan for the year ended 31st March, 2018. [6 marks]

Solution:

Concept:

- A partner who guarantees fee income must compensate the firm for the shortfall. This compensation increases the profit available for appropriation and is debited to that partner's capital account.
- Annual partner salary equals monthly salary multiplied by 12. After salaries, divide residual profit in the agreed ratio and transfer the guaranteed partner's deficiency from the guaranteeing partners in their agreed ratio.

Step 1: Determine adjusted profit and salaries Jay's fee deficiency is Rs $2,00,000 - 1,75,000 = 25,000$. Thus adjusted profit is Rs $15,00,000 + 25,000 = 15,25,000$. Jay and Vijay each receive salary of Rs $15,000 \times 12 = 1,80,000$. The residue available for profit sharing is Rs $15,25,000 - 3,60,000 = 11,65,000$.

Step 2: Calculate the guarantee adjustment Divide Rs 11,65,000 in the ratio $2 : 2 : 1$: Jay Rs 4,66,000, Vijay Rs 4,66,000 and Karan Rs 2,33,000. Karan's deficiency is Rs $5,00,000 - 2,33,000 = 2,67,000$. Jay bears Rs $2,67,000 \times 3/5 = 1,60,200$, and Vijay bears Rs $2,67,000 \times 2/5 = 1,06,800$. Final profit shares are therefore Jay Rs 3,05,800, Vijay Rs 3,59,200 and Karan Rs 5,00,000. Their sum is Rs 11,65,000.

Step 3: Prepare the appropriation account Profit and Loss Appropriation Account for the year ended 31 March 2018

Dr. Particulars	Amount (Rs)	Particulars Cr.	Amount (Rs)
To Salary: Jay	1,80,000	By Profit and Loss A/c	15,00,000
To Salary: Vijay	1,80,000	By Jay's Capital A/c	25,000
To Profit: Jay	3,05,800	(Fee deficiency)	
To Profit: Vijay	3,59,200		
To Profit: Karan	5,00,000		
Total	15,25,000	Total	15,25,000

Step 4: Prepare partners capital accounts Partners' Capital Accounts for the year ended 31 March 2018

Dr. Particulars	Jay Rs	Vijay Rs	Karan Rs	Particulars Cr.	Jay Rs	Vijay Rs	Karan Rs
To P&L Appropriation	25,000	–	–	By Salary	1,80,000	1,80,000	–
To Balance c/d	4,60,800	5,39,200	5,00,000	By Profit share	3,05,800	3,59,200	5,00,000
Total	4,85,800	5,39,200	5,00,000	Total	4,85,800	5,39,200	5,00,000

Opening capitals are not supplied; the balances above represent the net increases from the stated transactions. Any existing opening capital would be added to the respective balance. Jay's fee compensation is a separate debit, whereas the guarantee adjustment is already included in the final profit shares.

Step 5: Conclusion Karan receives the guaranteed Rs 5,00,000. Net capital increases are Jay Rs 4,60,800, Vijay Rs 5,39,200 and Karan Rs 5,00,000.

Quick Tip to Solve: Add the fee deficiency before appropriation; charge it separately to Jay so that it is not counted twice.

16. DF Ltd. invited applications for issuing 50,000 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 (including premium Rs 1)

On First call : Rs 3 per share

On Second and Final Call : Balance amount

Application for 70,000 shares were received. Allotment was made on the following basis.

Applications for 5,000 shares – Full

Applications for 50,000 shares – 90%

Balance of the applications were rejected. Rs 1,11,000 were received on account of allotment. The amount of allotment due from the shareholders to whom shares were allotted on prorata basis was fully received. A few shareholders to whom shares were allotted in full, failed to pay the allotment money. Rs 1,20,000 were received on first call. Directors decided to forfeit those shares on which allotment and call money was due. Half of the forfeited shares were re-issued @ Rs 8 per share fully paid up. Final call was not made.

Pass the necessary journal entries for the above transactions in the book of DF Ltd. [8 marks]

Solution:

Concept:

- On pro-rata allotment, excess application money is transferred to Share Allotment Account. The cash payable on allotment is the allotment amount due less this transfer; the amounts must also reconcile separately for each group of applicants.
- Forfeiture requires identifiable defaulting shares and the capital received on those shares. Premium that was due but not received is cancelled on forfeiture. Reissue profit depends on the forfeiture balance attributable to the particular shares reissued.
- A numerical result cannot be inferred from contradictory data. Here the printed allotment receipt must be tested against the expressly stated full payment by the pro-rata group before determining forfeiture or Capital Reserve.

Step 1: Determine the application allocation The company receives Rs $70,000 \times 3 = 2,10,000$. It allots 5,000 shares in full and $50,000 \times 90\% = 45,000$ shares to the pro-rata group, so the total allotment is 50,000 shares. The applications rejected are $70,000 - 5,000 - 50,000 = 15,000$, requiring a refund of Rs 45,000.

For the pro-rata group, application money received is Rs 1,50,000, whereas the application amount on the 45,000 shares allotted is Rs 1,35,000. The excess Rs 15,000 is adjusted against allotment. The capital and premium components of application money on all allotted shares are respectively Rs $50,000 \times 2 = 1,00,000$ and Rs $50,000 \times 1 = 50,000$.

Step 2: Test the printed allotment receipt The 45,000 pro-rata shares carry allotment dues of Rs $45,000 \times 3 = 1,35,000$. After adjusting their excess application money, their cash payable is

$$1,35,000 - 15,000 = 1,20,000 \text{ rupees.}$$

The question expressly states that this group's allotment dues were fully received. Thus total allotment cash must be at least Rs 1,20,000, even if none of the fully allotted shareholders pays anything. The printed total of Rs 1,11,000 is Rs 9,000 below this minimum.

Equivalently, total allotment due is Rs 1,50,000. The stated receipt implies arrears of Rs $1,50,000 - 15,000 - 1,11,000 = 24,000$, or $24,000/3 = 8,000$ fully allotted shares. Only 5,000 shares were allotted in full, carrying maximum possible allotment arrears of Rs 15,000. Hence the printed conditions cannot all be true. No numerical correction is supplied or assumed.

Step 3: Record the application and allotment amounts The following entries show the amounts supported by the application terms and the stated cash receipt. Recording that receipt does not remove the contradiction demonstrated above.

Journal of DF Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		2,10,000	
	To Share Application A/c			2,10,000
	(Being application money received on 70,000 shares)			

	Share Application A/c Dr.	2,10,000	
	To Share Capital A/c		1,00,000
	To Securities Premium A/c		50,000
	To Share Allotment A/c		15,000
	To Bank A/c		45,000
	(Being applications allocated, surplus adjusted and rejected applications refunded)		
	Share Allotment A/c Dr.	1,50,000	
	To Share Capital A/c		1,00,000
	To Securities Premium A/c		50,000
	(Being allotment including premium due)		
	Bank A/c Dr.	1,11,000	
	To Share Allotment A/c		1,11,000
	(Being allotment cash recorded at the printed amount)		

The resulting debit balance of Share Allotment Account is Rs 24,000. It is an arithmetic consequence of the printed cash figure, not evidence that 8,000 fully allotted shares actually existed.

Step 4: Record the first call and identify why later entries cannot be determined The first call is Rs 3 per allotted share, giving Rs $50,000 \times 3 = 1,50,000$ due. The stated cash receipt is Rs 1,20,000, leaving Rs 30,000 unpaid, equivalent to 10,000 shares at Rs 3 each.

Journal of DF Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First Call A/c Dr.		1,50,000	
	To Share Capital A/c			1,50,000
	(Being first call of Rs 3 per share due)			
	Bank A/c Dr.		1,20,000	
	To Share First Call A/c			1,20,000
	(Being first-call money received as stated)			

Called-up nominal capital is Rs $2 + 2 + 3 = 7$ per share; Rs 3 nominal capital remains uncalled. However, the inconsistent allotment information prevents identification of a possible set of allotment defaulters and the capital received on the shares to be forfeited. First-call arrears alone do not resolve that contradiction or identify the overlap with allotment defaults.

Consequently, a consistent numerical forfeiture entry, number of shares reissued, reissue entry and transfer to Capital Reserve cannot be completed from all the printed conditions. In particular, it is invalid to assume 8,000 fully allotted defaulting shares or to take half an aggregate forfeiture balance without establishing the shares involved. No final-call entry is passed because the final call was not made.

Step 5: Conclusion The printed data are internally inconsistent: the fully paying pro-rata group alone must remit Rs 1,20,000 on allotment, exceeding the stated total Rs 1,11,000. The application, allotment and first-call entries above record the supported terms and stated amounts, but no consistent numerical forfeiture, reissue or Capital Reserve can be determined without clarification of the conflicting allotment information. The final call was not made.

Quick Tip to Solve: Reconcile the pro-rata group's allotment cash first: Rs 1,35,000 due less Rs 15,000 excess application already requires Rs 1,20,000.

OR

16. EF Ltd. invited applications for issuing 80,000 equity shares of Rs 50 each at a premium of 20%. The amount was payable as follows :

On Application : Rs 20 per share (including premium Rs 5)

On Allotment : Rs 15 per share (including premium Rs 5)

On First Call : Rs 15 per share

On Second and Final call : Balance amount

Applications for 1,20,000 shares were received. Applications for 20,000 shares were rejected and pro-rata allotment was made to the remaining applicants.

Seema, holding 4,000 shares failed to pay the allotment money. Afterwards the first call was made. Seema paid allotment money along with the first call. Sahaj who had applied for 2,500 shares failed to pay the first call money. Sahaj's shares were forfeited and subsequently reissued to Geeta for Rs 60 per share, Rs 50 per share paid up. Final call was not made.

Pass necessary journal entries for the above transactions in the books of EF Ltd. by opening calls-in-arrears account.

[8 marks]

Solution:

Concept:

- Application premium is credited to Securities Premium; only the face-value component is credited to Share Capital. Excess application money is adjusted against allotment.
- Calls-in-Arrears records amounts due but unpaid. Forfeiture credits only capital actually received; a reissue surplus is Securities Premium, while forfeiture relating to reissued shares becomes Capital Reserve.

Step 1: Determine pro-rata allotment and the unpaid amounts The eligible applications are $1,20,000 - 20,000 = 1,00,000$, against which 80,000 shares are allotted. Thus allotment : application is $4:5$. Application receipts are Rs 24,00,000; refund is Rs 4,00,000; application due on allotted shares is Rs 16,00,000, comprising capital Rs 12,00,000 and premium Rs 4,00,000. The remaining Rs 4,00,000 is adjusted against allotment.

Seema applied for $4,000 \times 5/4 = 5,000$ shares. Her excess application money is $1,000 \times 20 =$ Rs $20,000$, so her unpaid allotment is $4,000 \times 15 - 20,000 =$ Rs $40,000$. Sahaj receives $2,500 \times 4/5 = 2,000$ shares and defaults on first call of $2,000 \times 15 =$ Rs $30,000$. The second call would be Rs 10 per share, but is not made.

Step 2: Record application and allotment Journal of EF Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		24,00,000	
	To Share Application A/c			24,00,000
	(Being application money received on 1,20,000 shares)			

	Share Application A/c Dr.	24,00,000	
	To Share Capital A/c		12,00,000
	To Securities Premium A/c		4,00,000
	To Share Allotment A/c		4,00,000
	To Bank A/c		4,00,000
	(Being applications allotted, excess adjusted and rejected applications refunded)		
	Share Allotment A/c Dr.	12,00,000	
	To Share Capital A/c		8,00,000
	To Securities Premium A/c		4,00,000
	(Being allotment due on 80,000 shares)		
	Bank A/c Dr.	7,60,000	
	Calls-in-Arrears A/c Dr.	40,000	
	To Share Allotment A/c		8,00,000
	(Being allotment balance received except Seema's arrears)		

Step 3: Record first call and recovery of arrears Journal of EF Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First Call A/c Dr.		12,00,000	
	To Share Capital A/c			12,00,000
	(Being first call of Rs 15 per share due)			
	Bank A/c Dr.		12,10,000	
	Calls-in-Arrears A/c Dr.		30,000	
	To Share First Call A/c			12,00,000
	To Calls-in-Arrears A/c			40,000
	(Being first call received except Sahaj's default and Seema's allotment arrears recovered)			

Bank receives $12,00,000 - 30,000 + 40,000 =$ Rs $12,10,000$. Seema has now paid every amount called; only Sahaj is subject to forfeiture.

Step 4: Record forfeiture, reissue and capital reserve Sahaj's called-up capital is $2,000 \times (15+10+15) =$ Rs $80,000$. Capital received is $2,000 \times 25 =$ Rs $50,000$; the full original premium has been received. On reissue, the shares become fully paid at Rs 50, so capital credited is Rs 1,00,000; the excess Rs 20,000 is premium.

Journal of EF Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Capital A/c Dr.		80,000	
	To Calls-in-Arrears A/c			30,000
	To Share Forfeiture A/c			50,000
	(Being Sahaj's 2,000 shares forfeited for first-call default)			
	Bank A/c Dr.		1,20,000	
	To Share Capital A/c			1,00,000
	To Securities Premium A/c			20,000
	(Being 2,000 shares reissued to Geeta at Rs 60, fully paid)			

Share Forfeiture A/c Dr.		50,000	
To Capital Reserve A/c			50,000
(Being forfeiture surplus on all reissued shares transferred)			

Step 5: Conclusion Calls-in-Arrears closes after recovery from Seema and forfeiture of Sahaj's shares. Capital Reserve is Rs 50,000; no final-call entry is passed.

Quick Tip to Solve: Find the defaulting holder's applied shares before computing excess application money; deduct that excess from allotment due.

17. Akul, Bakul and Chandan were partners in a firm sharing profits in the ratio of 2 : 2 : 1. On 31st March, 2018 their Balance Sheet was as follows :
Balance Sheet of Akul, Bakul and Chandan as on 31-3-2018

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Sundry Creditors	45,000	Cash at Bank	42,000
Employees Provident Fund	13,000	Debtors 60,000	
General reserve	20,000	Less: Provision for doubtful debts 2,000	58,000
Capitals:			
Akul 1,60,000		Stock	80,000
Bakul 1,20,000		Furniture	90,000
Chandan 92,000	3,72,000	Plant and Machinery	1,80,000
	4,50,000		4,50,000

Bakul retired on the above date and it was agreed that :

(i) Plant and Machinery was undervalued by 10%.

(ii) Provision for doubtful debts was to be increased to 15% on debtors.

(iii) Furniture was to be decreased to Rs 87,000.

(iv) Goodwill of the firm was valued at Rs 3,00,000 and Bakul's share was to be adjusted through the capital accounts of Akul and Chandan.

(v) Capital of the new firm was to be in the new profit sharing ratio of the continuing partners.

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

Solution:

Concept:

- Revaluation gains and losses and accumulated reserves belong to all old partners in the old ratio 2 : 2 : 1. The required doubtful-debt provision is computed on gross debtors.
- In the absence of another agreement, Akul and Chandan continue in their old relative ratio 2 : 1. They compensate Bakul for goodwill in their gaining ratio, also 2 : 1.
- The retiring partner's amount due is transferred to his Loan Account where immediate payment is not specified. Continuing partners adjust their capitals in cash to the required ratio.

Step 1: Calculate revaluation and goodwill adjustments Plant and Machinery increases by $1,80,000 \times 10\% =$ Rs $18,000$, becoming Rs 1,98,000. The new provision is $60,000 \times 15\% =$ Rs $9,000$; the additional expense is $9,000 - 2,000 =$ Rs $7,000$. Furniture decreases by $90,000 - 87,000 =$ Rs $3,000$. Hence revaluation profit is $18,000 - 7,000 - 3,000 =$ Rs $8,000$, credited to Akul, Bakul and Chandan as Rs 3,200, Rs 3,200 and Rs 1,600 respectively.

General Reserve of Rs 20,000 is credited as Rs 8,000, Rs 8,000 and Rs 4,000. Bakul's goodwill entitlement is $3,00,000 \times 2/5 =$ Rs $1,20,000$. Akul's gain is $2/3 - 2/5 = 4/15$ and Chandan's gain is $1/3 - 1/5 = 2/15$. Therefore debit their capital accounts by Rs 80,000 and Rs 40,000 and credit Bakul by Rs 1,20,000. Goodwill is adjusted through capitals, so no goodwill asset appears.

Step 2: Prepare Revaluation Account Revaluation Account

Dr. Particulars	Amount (Rs)	Particulars Cr.	Amount (Rs)
To Provision for doubtful debts	7,000	By Plant and Machinery	18,000
To Furniture	3,000		
To Akul's Capital	3,200		
To Bakul's Capital	3,200		
To Chandan's Capital	1,600		
Total	18,000	Total	18,000

Step 3: Find the amount due and adjust continuing capitals After all adjustments, the capital balances are:

$$\text{Akul} = 1,60,000 + 8,000 + 3,200 - 80,000 = 91,200,$$

$$\text{Bakul} = 1,20,000 + 8,000 + 3,200 + 1,20,000 = 2,51,200,$$

$$\text{Chandan} = 92,000 + 4,000 + 1,600 - 40,000 = 57,600.$$

Transfer Rs 2,51,200 due to Bakul to his Loan Account. Continuing capital totals $91,200 + 57,600 =$ Rs $1,48,800$. In ratio $2 : 1$, Akul's capital must be Rs 99,200 and Chandan's Rs 49,600. Thus Akul brings Rs 8,000 and Chandan withdraws Rs 8,000. These equal cash adjustments leave Bank unchanged at Rs 42,000.

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

Dr.	Akul	Bakul	Chandan	Cr.	Akul	Bakul	Chandan
To Bakul's Capital	80,000	–	40,000	By Balance b/d	1,60,000	1,20,000	92,000
To Bank	–	–	8,000	By General Reserve	8,000	8,000	4,000
To Bakul's Loan	–	2,51,200	–	By Revaluation	3,200	3,200	1,600
To Balance c/d	99,200	–	49,600	By Akul's Capital	–	80,000	–
				By Chandan's Capital	–	40,000	–
				By Bank	8,000	–	–
Total	1,79,200	2,51,200	97,600	Total	1,79,200	2,51,200	97,600

Step 5: Prepare the reconstituted Balance Sheet Balance Sheet of Akul and Chandan as on 31st March, 2018

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Sundry Creditors	45,000	Cash at Bank	42,000
Employees Provident Fund	13,000	Debtors	60,000
Bakul's Loan	2,51,200	Less: Provision	(9,000)
Capitals:		Net Debtors	51,000
Akul	99,200	Stock	80,000
Chandan	49,600	Furniture	87,000
		Plant and Machinery	1,98,000
Total	4,58,000	Total	4,58,000

Gross debtors and the deduction are shown as a working to the net-debtors amount; only Rs 51,000 enters the asset total. Employees Provident Fund remains an outside liability and is not distributed as a reserve.

Step 6: Conclusion Revaluation profit is Rs 8,000. Bakul's Loan is Rs 2,51,200; final capitals are Akul Rs 99,200 and Chandan Rs 49,600, and the Balance Sheet totals Rs 4,58,000.

Quick Tip to Solve: Compute the extra provision, not the full new provision, as the revaluation loss; then adjust goodwill before setting continuing capitals.

OR

17. Sanjana and Alok were partners in a firm sharing profits and losses in the ratio 3 : 2. On 31st March, 2018 their Balance Sheet was as follows :
Balance Sheet of Sanjana and Alok as on 31-3-2018

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Creditors	60,000	Cash	1,66,000
Workmen's Compensation Fund	60,000	Debtors	1,46,000
Capitals:		Less: Provision	(2,000)
Sanjana	5,00,000	Net debtors	1,44,000
Alok	4,00,000	Stock	1,50,000
		Investments	2,60,000
		Furniture	3,00,000
Total	10,20,000	Total	10,20,000

On 1st April, 2018, they admitted Nidhi as a new partner for 1/4th share in the profits on the following terms :

(a) Goodwill of the firm was valued at Rs 4,00,000 and Nidhi brought the necessary amount in cash for her share of goodwill premium, half of which was withdrawn by the old partners.

(b) Stock was to be increased by 20% and furniture was to be reduced to 90%.

(c) Investments were to be valued at Rs 3,00,000. Alok took over investments at this value.

(d) Nidhi brought Rs 3,00,000 as her capital and the capitals of Sanjana and Alok were adjusted in the new profit sharing ratio.

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

Solution:

Concept:

- In the absence of a different agreement, Sanjana and Alok retain their relative ratio $3:2$ in the remaining $3/4$ share. The new ratio is $9:6:5$, and the sacrificing ratio is $3:2$.
- Revaluation profit and accumulated reserves belong to the old partners in their old ratio. Goodwill premium compensates their sacrifice; it is not retained as a goodwill asset.
- Nidhi's capital for her $1/4$ share determines the total capital of the reconstituted firm. Cash is introduced or withdrawn to adjust the old partners' capitals.

Step 1: Calculate goodwill, reserve and revaluation adjustments Nidhi brings goodwill premium $4,00,000 \times 1/4 =$ Rs $1,00,000$. Sanjana and Alok receive Rs 60,000 and Rs 40,000 respectively; half is withdrawn, i.e. Rs 30,000 and Rs 20,000.

There is no workmen's compensation claim. Therefore the entire fund of Rs 60,000 is transferred to Sanjana and Alok in $3:2$: Rs 36,000 and Rs 24,000. Stock increases by Rs 30,000, furniture falls by Rs 30,000 and investments increase by Rs 40,000. Hence revaluation profit is Rs 40,000, shared Rs 24,000 and Rs 16,000. Alok's capital is debited by Rs 3,00,000 for the investments he takes over.

Step 2: Prepare Revaluation Account Revaluation Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Furniture	30,000	By Stock	30,000
To Sanjana's Capital	24,000	By Investments	40,000
To Alok's Capital	16,000		
Total	70,000	Total	70,000

The profit is transferred immediately to the old partners, leaving no balance in the Revaluation Account.

Step 3: Determine the required capitals Total capital based on Nidhi's capital is $3,00,000 \div 1/4 =$ Rs $12,00,000$. Required capitals in $9:6:5$ are Sanjana Rs 5,40,000, Alok Rs 3,60,000 and Nidhi Rs 3,00,000.

Sanjana's adjusted capital before the final cash adjustment is

$$5,00,000 + 36,000 + 24,000 + 60,000 - 30,000 = 5,90,000.$$

She withdraws Rs 50,000. Alok's corresponding balance is

$$4,00,000 + 24,000 + 16,000 + 40,000 - 20,000 - 3,00,000 = 1,60,000.$$

He introduces Rs 2,00,000 to reach Rs 3,60,000.

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

Dr. Particulars	Sanjana	Alok	Nidhi	Particulars	Sanjana	Alok	Nidhi
To Cash: premium	30,000	20,000	–	By Balance b/d	5,00,000	4,00,000	–
To Investments	–	3,00,000	–	By Compensation Fund	36,000	24,000	–
To Cash: adjustment	50,000	–	–	By Revaluation	24,000	16,000	–
To Balance c/d	5,40,000	3,60,000	3,00,000	By Goodwill Premium	60,000	40,000	–
				By Cash: capital	–	2,00,000	3,00,000
Total	6,20,000	6,80,000	3,00,000	Total	6,20,000	6,80,000	3,00,000

The goodwill premium brought by Nidhi is credited to the old partners through the Premium for

Goodwill Account; it does not increase Nidhi's capital.

Step 5: Prepare the reconstituted balance sheet Cash balance is

$$1,66,000 + 3,00,000 + 1,00,000 + 2,00,000 - 50,000 - 50,000 = \text{Rs } 6,66,000.$$

Here the two deductions are total premium withdrawn and Sanjana's surplus capital withdrawn. Balance Sheet of Sanjana, Alok and Nidhi as at 1st April, 2018

Liabilities	Amount (Rs)	Assets	Amount (Rs)
Creditors	60,000	Cash	6,66,000
Partners' capitals:		Debtors	1,46,000
Sanjana	5,40,000	Less: Provision	(2,000)
Alok	3,60,000	Net debtors	1,44,000
Nidhi	3,00,000	Stock	1,80,000
		Furniture	2,70,000
Total	12,60,000	Total	12,60,000

Investments no longer appear because Alok has taken them over. The compensation fund is also closed by transfer to the old partners.

Step 6: Conclusion Revaluation profit is Rs 40,000. Closing capitals are Sanjana Rs 5,40,000, Alok Rs 3,60,000 and Nidhi Rs 3,00,000; the Balance Sheet totals Rs 12,60,000.

Quick Tip to Solve: Use the incoming partner's capital and share to find total capital, then adjust old capitals only after all admission entries.

Part B (20 marks)

18. Mevo Ltd., a financial enterprise had advanced a loan of Rs 3,00,000, invested Rs 6,00,000 in shares of the other companies and purchased machinery for Rs 9,00,000. It received dividend of Rs 70,000 on investment in shares. The company sold an old machine of the book value of Rs 79,000 at a loss of Rs 10,000.

Compute Cash flows from Investing Activities. [1 mark]

Solution:

Concept:

- For a financial enterprise, loans advanced, investment in shares and dividend received belong to operating activities because they relate to its principal business.
- Purchase and sale of machinery are investing activities. Sale proceeds equal book value less loss on sale.

Step 1: Classify the transactions The loan of Rs 3,00,000, purchase of shares of Rs 6,00,000 and dividend of Rs 70,000 are excluded from investing activities because Mevo Ltd. is a financial enterprise. Only the machinery transactions enter this calculation.

Step 2: Compute net investing cash flow Sale proceeds of the old machine $= 79,000 - 10,000 =$ Rs $69,000$.

Cash flows from investing activities

Particulars	Amount (Rs)
Purchase of machinery	(9,00,000)
Sale of machinery	69,000
Net cash used in investing activities	(8,31,000)

Step 3: Conclusion Net cash used in investing activities is Rs 8,31,000 (net cash flow: Rs $-8,31,000$).

Quick Tip to Solve: First identify whether the enterprise is financial; this changes the classification of loans, securities and dividend.

19. Give the meaning of 'Cash Equivalents' for the purpose of preparing Cash Flow Statement. [1 mark]

Solution:

Concept:

- Cash equivalents are held to meet short-term cash commitments rather than for investment or other purposes.
- They combine high liquidity, ready convertibility into a known cash amount and an insignificant risk of changes in value.

Step 1: State the meaning Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash and are subject to an insignificant risk of changes in value. Thus, ready saleability alone does not make every investment a cash equivalent.

Step 2: Apply the maturity criterion An investment normally qualifies only when its maturity is short, generally three months or less from the date of acquisition. For example, a Treasury bill acquired with a remaining maturity of three months can qualify if it satisfies the liquidity and insignificant-risk conditions.

Step 3: Conclusion Cash equivalents are short-term, highly liquid investments readily convertible into known cash amounts with insignificant risk of changes in value.

Quick Tip to Solve: Check maturity from the date of acquisition, together with liquidity and insignificant value risk.

20. Explain briefly any four objectives of 'Analysis of Financial Statements'. [4 marks]

Solution:

Concept:

- Financial statement analysis systematically studies relationships among figures in the balance sheet and statement of profit and loss to assess financial position and performance.
- Profitability, liquidity, solvency and operating efficiency describe distinct aspects of business performance. Comparison across years or firms makes the figures useful for decisions.

Step 1: Assess profitability and earning capacity Analysis helps ascertain whether the business earns

adequate profit in relation to its sales, capital employed and owners' investment. It also reveals whether profitability is improving or declining. Owners and investors use this information to judge the return earned and the firm's capacity to generate future profits.

Step 2: Assess short-term liquidity Analysis determines the ability of the business to meet its current liabilities when they fall due. Studying current assets, especially cash and readily realisable resources, in relation to current liabilities helps management and short-term creditors judge whether day-to-day payments can be made on time.

Step 3: Assess long-term solvency Analysis evaluates the firm's ability to meet long-term financial commitments, including repayment of borrowings and payment of interest. The relationship between debt, owners' funds and assets indicates financial risk and the protection available to long-term lenders.

Step 4: Assess operating efficiency Analysis helps judge how effectively management uses the resources of the business. For example, the speed with which inventories are sold and receivables collected reveals the efficiency of working-capital management. Comparison over time or with similar businesses identifies weaknesses and areas needing corrective action.

Step 5: Conclusion Four objectives are to assess profitability, short-term liquidity, long-term solvency and operating efficiency, providing a basis for business and investment decisions.

Quick Tip to Solve: Link each objective to a distinct question: profit earned, bills payable now, debts payable later, and efficiency of resource use.

OR

20. State under which major headings and sub-headings will the following items be presented in the Balance Sheet of a company as per Schedule-III, Part-I of the Companies Act, 2013.

(i) Prepaid Insurance

(ii) Investment in Debentures

(iii) Calls-in-arrears

(iv) Unpaid dividend

(v) Capital Reserve

(vi) Loose Tools

(vii) Capital work-in-progress

(viii) Patents being developed by the company. [4 marks]

Solution:

Concept:

- Schedule III classifies balance-sheet items by their nature and, where relevant, by whether they are current or non-current. The major heading and sub-heading must both be stated.
- Calls-in-arrears reduce subscribed share capital; they are not presented as an independent current asset. An asset still being developed is classified separately from a completed asset.

Step 1: Classify current assets and investments The asset items are presented as follows. Investment in debentures, where no short-term holding is specified, is classified as a non-current investment in this question.

Item	Major heading	Sub-heading
Prepaid insurance	Current assets	Other current assets
Investment in debentures	Non-current assets	Non-current investments
Loose tools	Current assets	Inventories

Prepaid insurance represents a benefit to be received in the coming accounting period. Loose tools are included in inventories under the prescribed presentation. Investment in another company's debentures is an investment asset, even though debentures issued by the reporting company would be a liability.

Step 2: Classify equity, liabilities and assets under development The remaining items are presented as follows.

Item	Major heading	Sub-heading
Calls-in-arrears	Shareholders' funds	Share capital (deduct from subscribed capital)
Unpaid dividend	Current liabilities	Other current liabilities
Capital reserve	Shareholders' funds	Reserves and surplus
Capital work-in-progress	Non-current assets	Fixed assets: capital work-in-progress
Patents being developed	Non-current assets	Fixed assets: intangible assets under development

Calls-in-arrears are the called amount not received from shareholders and therefore reduce the capital disclosed as paid up. Unpaid dividend remains payable to shareholders. Capital reserve is a capital reserve within shareholders' funds. Capital work-in-progress and patents under development remain in their separate development categories until ready for use; patents under development are not yet completed intangible assets.

Step 3: Conclusion The classifications above give both the major headings and the relevant sub-headings for all eight items under Schedule III, Part I.

Quick Tip to Solve: Distinguish debentures held as investments from debentures issued, and keep assets under development separate from completed fixed assets.

21. (a) Calculate Revenue from operations of BN Ltd. From the following information :

Current assets	**Rs 8,00,000.**
Quick ratio is	**1.5 : 1**
Current ratio is	**2 : 1.**
Inventory turnover ratio is	**6 times.**

Goods were sold at a profit of 25% on cost.

(b) The Operating ratio of a company is 60%. State whether 'Purchase of goods costing Rs 20,000' will increase, decrease or not change the operating ratio. [4 marks]

Solution:

Concept:

- Current ratio is current assets divided by current liabilities; quick ratio excludes inventory from current assets. These two ratios first identify the inventory tied up in the business.
- Inventory turnover ratio equals cost of revenue from operations divided by average inventory. Where only one inventory figure is supplied, use that figure for this calculation. Profit on cost is added to cost to obtain revenue.
- Operating ratio is $\dfrac{\text{Cost of revenue from operations} + \text{Operating expenses}}{\text{Revenue from operations}} \times 100$. A purchase which remains in inventory does not itself constitute goods sold.

Step 1: (a) Calculate current liabilities and quick assets Using the current ratio of $2 : 1$,

$$\text{Current liabilities} = \frac{8,00,000}{2} = \text{Rs } 4,00,000.$$

Quick assets are therefore

$$1.5 \times 4,00,000 = \text{Rs } 6,00,000.$$

Hence inventory equals current assets less quick assets:

$$8,00,000 - 6,00,000 = \text{Rs } 2,00,000.$$

Step 2: (a) Use turnover and the profit on cost The inventory turnover ratio is 6 times. Thus cost of revenue from operations is

$$6 \times 2,00,000 = \text{Rs } 12,00,000.$$

Goods are sold at a profit of 25% on cost, so gross profit is

$$12,00,000 \times \frac{25}{100} = \text{Rs } 3,00,000.$$

Revenue from operations equals cost plus gross profit:

$$12,00,000 + 3,00,000 = \text{Rs } 15,00,000.$$

The percentage is applied to cost, so revenue is 125% of cost; it is not obtained by treating the stated percentage as a margin on sales.

Step 3: (b) Assess the purchase of goods Purchasing goods for Rs 20,000 increases purchases and inventory by the same amount. In the cost-of-goods-sold calculation, the increase in purchases is offset by the increase in closing inventory. Thus cost of revenue from operations, operating expenses and revenue from operations remain unchanged by this purchase alone. Both numerator and denominator of the operating ratio are unchanged.

Step 4: Conclusion (a) Revenue from operations is $\boxed{\text{Rs } 15,00,000}$. (b) The operating ratio does not change and remains $\boxed{60\%}$.

Quick Tip to Solve: First derive liabilities from the current ratio, then inventory from quick assets; add 25% of cost only after calculating cost of goods sold.

OR

21. (a) Calculate 'Total Assets to Debt ratio' from the following information :

	Rs
Equity Share Capital	**4,00,000**
Long Term Borrowings	**1,80,000**
Surplus i.e. Balance in statement of Profit and Loss	**1,00,000**
General Reserve	**70,000**
Current Liabilities	**30,000**
Long Term Provisions	**1,20,000**

(b) The Debt Equity ratio of a company is 1 : 2. State whether 'Issue of bonus shares' will increase, decrease or not change the Debt Equity Ratio. [4 marks]

Solution:

Concept:

- Total assets to debt ratio equals total assets divided by long-term debt. Long-term debt includes long-term borrowings and long-term provisions; current liabilities are excluded from this denominator.
- By the accounting equation, total assets equal shareholders' funds plus non-current liabilities plus current liabilities. Shareholders' funds comprise equity share capital and reserves and surplus.
- A bonus issue capitalises reserves: the increase in share capital is offset by an equal decrease in reserves. The total shareholders' funds and the amount of debt do not change.

Step 1: (a) Determine shareholders' funds Add the equity share capital, surplus in the statement of profit and loss and general reserve:

$$\begin{aligned}\text{Shareholders' funds} &= 4,00,000 + 1,00,000 + 70,000 \\ &= \text{Rs } 5,70,000.\end{aligned}$$

The surplus and general reserve belong to equity; they are not outside liabilities and therefore are not included in debt.

Step 2: (a) Determine debt and total assets Long-term borrowings and long-term provisions together constitute the long-term debt:

$$\text{Debt} = 1,80,000 + 1,20,000 = \text{Rs } 3,00,000.$$

Include all liabilities when finding total assets from the accounting equation:

$$\begin{aligned}\text{Total assets} &= 5,70,000 + 3,00,000 + 30,000 \\ &= \text{Rs } 9,00,000.\end{aligned}$$

Current liabilities of Rs 30,000 help finance the total assets, although they do not form part of long-term debt for this ratio.

Step 3: (a) Calculate the ratio Apply the ratio formula using total assets in the numerator and long-term debt in the denominator:

$$\text{Total assets to debt ratio} = \frac{9,00,000}{3,00,000} = 3:1.$$

Thus each rupee of long-term debt is supported by three rupees of total assets.

Step 4: (b) Analyse the bonus issue Debt-equity ratio compares long-term debt with shareholders' funds. Issue of bonus shares transfers an amount from reserves to equity share capital. Since these are both components of shareholders' funds, their aggregate remains unchanged. No additional borrowing arises from this transfer. Consequently neither the numerator nor the denominator changes, so the existing debt-equity ratio continues to apply.

Step 5: Conclusion (a) Total assets to debt ratio is $\boxed{3:1}$. (b) Issue of bonus shares does not change the debt-equity ratio; it remains $\boxed{1:2}$.

Quick Tip to Solve: Include long-term provisions in debt, but include current liabilities only when deriving total assets from the financing side.

22. From the following information extracted from the Statement of Profit and Loss for the years ended 31st March, 2017 and 2018, prepare a Comparative Statement of Profit & Loss.

Particulars	2017-18	2016-17
Revenue from operations	Rs 6,00,000	Rs 5,00,000
Other incomes (% of revenue from operations)	20%	20%
Employee benefit expenses (% of Total Revenue)	40%	30%
Tax rate	50%	50%

[4 marks]

Solution:

Concept:

- Absolute change equals current-year amount minus previous-year amount.
- Percentage change is $\dfrac{\text{Absolute change}}{\text{Previous-year amount}} \times 100$. Use 2016-17 as the base year.

- Other income is calculated on revenue from operations; employee benefit expenses are calculated on total revenue.

Step 1: Calculate income and employee expenses Other income is $6,00,000 \times 20\% =$ Rs $1,20,000$ in 2017-18 and $5,00,000 \times 20\% =$ Rs $1,00,000$ in 2016-17. Therefore total revenue is Rs 7,20,000 and Rs 6,00,000, respectively. Employee benefit expenses are $7,20,000 \times 40\% =$ Rs $2,88,000$ and $6,00,000 \times 30\% =$ Rs $1,80,000$. The expense percentages apply to total revenue, so using only operating revenue would understate expenses.

Step 2: Prepare the comparative statement Comparative Statement of Profit and Loss for the years ended 31st March, 2017 and 2018 (amounts in Rs)

Particulars	2016-17	2017-18	Increase	Change (%)
Revenue from operations	5,00,000	6,00,000	1,00,000	20.00
Other income	1,00,000	1,20,000	20,000	20.00
Total revenue	6,00,000	7,20,000	1,20,000	20.00
Less: Employee benefit expenses	1,80,000	2,88,000	1,08,000	60.00
Profit before tax	4,20,000	4,32,000	12,000	2.86
Less: Tax at 50%	2,10,000	2,16,000	6,000	2.86
Profit after tax	2,10,000	2,16,000	6,000	2.86

Tax is half of profit before tax in each year. The profit increase percentage is $12,000/4,20,000 \times 100 = 2.8571\%$, rounded to 2.86%. Since the tax rate is unchanged, tax and profit after tax show the same percentage increase.

Step 3: Conclusion Profit after tax increased from Rs 2,10,000 to Rs 2,16,000, an increase of Rs 6,000 or approximately 2.86%.

Quick Tip to Solve: Compute other income before employee expenses; their percentage bases are different.

23. From the following Balance Sheet of Kiero Ltd. and the additional information as on 31-3-2018, prepare a Cash Flow Statement :

Kiero Ltd.
Balance Sheet as at 31-3-2018

Particulars	Note No.	31-3-18 (Rs)	31-3-17 (Rs)
I Equity and Liabilities			
(1) Shareholders Funds			
(a) Share Capital		7,90,000	5,80,000
(b) Reserves and Surplus	1	4,60,000	1,20,000
(2) Non-Current Liabilities			
Long term Borrowings	2	5,00,000	3,00,000
(3) Current Liabilities			
(a) Short term borrowings	3	1,15,000	42,000
(b) Short term Provisions	4	1,18,000	46,000
Total		19,83,000	10,88,000
II. Assets			
(1) Non-Current Assets			
Fixed Assets			
(i) Tangible Assets	5	9,80,000	6,35,000
(ii) Intangible Assets	6	2,68,000	1,70,000
(2) Current Assets			
(a) Current Investments		1,40,000	70,000

(b) Trade Receivables		4,40,000	1,50,000
(c) Cash and Cash Equivalents		1,55,000	63,000
Total		19,83,000	10,88,000

Notes to Accounts

Note	Particulars	31-3-18 (Rs)	31-3-17 (Rs)
1	Reserves and Surplus		
	Surplus (Statement of Profit and Loss)	3,20,000	60,000
	General Reserve	1,40,000	60,000
	Total	4,60,000	1,20,000
2	Long-term Borrowings: 12% Debentures	5,00,000	3,00,000
3	Short-term Borrowings: Bank Overdraft	1,15,000	42,000
4	Short-term Provisions: Provision for Tax	1,18,000	46,000
5	Tangible Assets: Plant and Machinery	11,00,000	7,50,000
	Less: Accumulated Depreciation	(1,20,000)	(1,15,000)
	Net tangible assets	9,80,000	6,35,000
6	Intangible Assets: Goodwill	2,68,000	1,70,000

Additional Information :

12% debentures were issued on 1st September, 2017. [6 marks]

Solution:

Concept:

- Under the indirect method, profit before tax is adjusted for non-cash expenses, financing costs and changes in operating working capital.
- For a non-financial company, debenture interest paid is a financing outflow. Purchases of fixed assets, goodwill and investments are investing outflows.
- The increase in accumulated depreciation gives depreciation where no disposal is stated. Tax paid is opening provision plus current provision minus closing provision.

Step 1: Calculate profit, interest and tax paid The increase in the Statement of Profit and Loss balance is Rs 2,60,000, and the transfer to general reserve is Rs 80,000. Hence profit after tax is Rs 3,40,000. Adding the current tax provision of Rs 1,18,000 gives profit before tax of Rs 4,58,000. Interest on opening debentures is $3,00,000 \times 12\% =$ Rs $36,000$. New debentures of Rs 2,00,000 were issued on 1st September, so interest for seven months is $2,00,000 \times 12\% \times 7/12 =$ Rs $14,000$. Total interest is Rs 50,000. Depreciation is $1,20,000 - 1,15,000 =$ Rs $5,000$. Tax paid is $46,000 + 1,18,000 - 1,18,000 =$ Rs $46,000$. No interest outstanding is given, so the calculated interest is treated as paid.

Step 2: Calculate investing and financing movements Plant purchases are the increase in gross plant cost: $11,00,000 - 7,50,000 =$ Rs $3,50,000$. Goodwill purchased is $2,68,000 - 1,70,000 =$ Rs $98,000$. Current investments increased by Rs 70,000; because these are separately stated from cash equivalents, their purchase is an investing outflow. The share issue provides Rs 2,10,000 and debenture issue provides Rs 2,00,000. Bank overdraft increased by Rs 73,000 and is shown as a financing inflow as a short-term borrowing.

Step 3: Prepare the cash flow statement Kiero Ltd. — Cash Flow Statement for the year ended 31st March, 2018

Particulars	Amount (Rs)
A. Cash flows from operating activities	
Profit before tax	4,58,000
Add: Depreciation	5,000
Add: Debenture interest	50,000
Operating profit before working capital changes	5,13,000
Less: Increase in trade receivables	(2,90,000)
Cash generated from operations	2,23,000
Less: Income tax paid	(46,000)
Net cash from operating activities (A)	1,77,000
B. Cash flows from investing activities	
Purchase of plant and machinery	(3,50,000)
Purchase of goodwill	(98,000)
Purchase of current investments	(70,000)
Net cash used in investing activities (B)	(5,18,000)
C. Cash flows from financing activities	
Proceeds from issue of shares	2,10,000
Proceeds from issue of debentures	2,00,000
Increase in bank overdraft	73,000
Interest paid	(50,000)
Net cash from financing activities (C)	4,33,000
Net increase in cash and cash equivalents (A+B+C)	92,000
Add: Opening cash and cash equivalents	63,000
Closing cash and cash equivalents	1,55,000

The closing balance agrees with the balance sheet: Rs 63,000 plus Rs 92,000 equals Rs 1,55,000. The general reserve transfer is added when reconstructing profit, because it is an appropriation of profit rather than a cash expense.

Step 4: Conclusion Net cash from operating activities is Rs 1,77,000; investing activities use Rs 5,18,000; financing activities provide Rs 4,33,000. Cash and cash equivalents increase by Rs 92,000 to Rs 1,55,000.

Quick Tip to Solve: Apply seven months of interest to the new debentures and calculate plant purchases from gross cost.

OPTION – II (Computerised Accounting)

18. What is meant by 'Data base design' ? [1 mark]

Solution:

Concept:

- Database design specifies the structure in which related data will be stored and linked.
- A table contains records (rows) and fields (columns); keys identify records and connect related tables.

Step 1: Identify the purpose An accounting database must organise information about accounts,

transactions and other entities so that it can be stored, retrieved and updated systematically.

Step 2: Specify the structure Database design is the process of deciding the tables, their fields and data types, the keys and the relationships between tables. For example, an account code can identify an account and link it to transaction records, avoiding unnecessary repetition of the account details.

Step 3: Conclusion Database design means planning the logical structure of a database, including its tables, fields, keys and relationships, to meet the information requirements of users.

Quick Tip to Solve: Define database design through structure: tables, fields, keys and relationships.

19. What is meant by a 'Summary Query' ? [1 mark]

Solution:

Concept:

- A query retrieves information from stored database records according to specified requirements.
- A summary query applies aggregate functions to records, often after grouping them by a common field.

Step 1: State the meaning A Summary Query is a query that produces summarised information by performing aggregate calculations, such as Sum, Average, Count, Minimum or Maximum, on a set of records.

Step 2: Illustrate the result For example, a query may group sales transactions customer-wise and calculate the total sales for each customer. It returns one summary for each customer instead of displaying every individual transaction.

Step 3: Conclusion A Summary Query presents aggregated information about a group of records, rather than only the individual detailed records.

Quick Tip to Solve: Associate a summary query with totals or other aggregate results, such as customer-wise total sales.

20. Why is it necessary to have safety features in accounting software ? Explain any two tools which provide data security. [4 marks]

Solution:

Concept:

- Accounting data must remain confidential, accurate and available to authorised users.
- Safety features protect records against unauthorised access, disclosure, alteration and misuse.

Step 1: Explain the need for safety features Accounting software stores sensitive financial information, including transactions, balances, customer details and business results. Unauthorised access can lead to disclosure, fraudulent changes or deletion of records. Such interference reduces the reliability of accounts and may disrupt business operations. Safety features are therefore necessary to protect the confidentiality and integrity of accounting data and to restrict its use to authorised persons.

Step 2: Tool 1: Password security Password security requires a user to enter a valid password before gaining access to the accounting system or protected data. A password acts as an access control: a person who does not know it cannot normally open the protected records. Different users may be given individual passwords and appropriate access rights, so that only authorised staff can enter, alter or view particular information. Passwords should be kept confidential and changed periodically to maintain effective protection.

Step 3: Tool 2: Data encryption Data encryption converts readable accounting data into a coded, unreadable form by using an encryption method and a key. The coded information can be converted back into readable information only with the appropriate decryption key or authority. Thus, even if an unauthorised person obtains a copy of the encrypted file, the accounting information is not directly intelligible. Encryption is useful for protecting both stored data and data sent electronically.

Step 4: Conclusion Safety features preserve the confidentiality and reliability of accounting records. Password security controls access, while data encryption protects the information by converting it into a coded form.

Quick Tip to Solve: Explain each tool through its action: a password restricts entry; encryption makes intercepted data unreadable.

21. Explain "Null Values and Complex attributes". [4 marks]

Solution:

Concept:

- An attribute describes a property of an entity, such as an employee's name, address or telephone number.
- A null value denotes unavailable or inapplicable information; it is different from zero or an empty text value.
- A complex attribute combines the characteristics of composite and multivalued attributes.

Step 1: Explain null values A null value is used when an attribute has no known or applicable value for a particular record. The value may be unknown, not yet available, or not applicable to that entity. For example, the date of leaving service is not applicable to an employee who is still in service; a telephone number may be unknown when an employee record is first entered. A null does not mean the number zero: zero is a definite numerical value. Nor does null mean a space or an empty string, which is a text value.

Step 2: Explain complex attributes A composite attribute can be divided into smaller meaningful components, while a multivalued attribute can have more than one value for the same entity. A complex attribute is formed by combining or nesting these two types. For example, an employee may have several addresses, and each address may consist of a house number, street, city, state and PIN code. The collection is multivalued because several addresses belong to one employee; each individual address is composite because it has separate components. Together, these features make the attribute complex.

Step 3: Distinguish their roles in a database Null values describe the absence of a usable value in a

field for a particular record. Complex attributes describe the structure of a property whose values contain components and may occur more than once. Thus, an employee record may have a null telephone number, while its collection of structured addresses illustrates a complex attribute.

Step 4: Conclusion Null values represent unknown, unavailable or inapplicable data. Complex attributes combine composite and multivalued characteristics, as in several addresses, each containing separate address components.

Quick Tip to Solve: For a complex attribute, give an example with both repetition and components: several addresses, each split into street, city and PIN code.

OR

21. Explain closing entries and adjusting entries. [4 marks]

Solution:

Concept:

- Financial statements must include the income earned and expenses incurred for the current accounting period, applying the accrual and matching principles.
- Temporary accounts record the performance of one period; their balances are transferred at the end of that period so that the next period begins separately.

Step 1: Closing entries Closing entries are entries passed at the end of an accounting period to transfer the balances of nominal accounts, such as expenses, losses, incomes and gains, to the Trading Account or Profit and Loss Account. They close these temporary accounts by reducing their balances to zero. For example, the purchases and direct-expense balances are transferred to the Trading Account, while indirect expenses and other incomes are transferred to the Profit and Loss Account. The resulting net profit or loss is then transferred to the capital account, or to the appropriate equity account in a company. Assets and liabilities are carried forward; they are not closed through the Trading or Profit and Loss Account.

Step 2: Adjusting entries Adjusting entries are entries made at the end of an accounting period, before preparing the final financial statements, to recognise items relating to that period which have not yet been fully or correctly recorded. They ensure that the accounts follow the accrual basis and that income is matched with the corresponding expenses. Examples include outstanding expenses, prepaid expenses, accrued income, income received in advance and depreciation. For instance, salary for the current period that remains unpaid is included in salary expense and also recognised as an outstanding liability. Similarly, the portion of an insurance payment relating to the next period is removed from the current expense and shown as a prepaid asset. Each adjustment therefore gives the proper period-end effect to the relevant accounts.

Step 3: Conclusion Closing entries transfer and close the balances of temporary accounts; adjusting entries bring the accounts up to date so that the current period's profit and financial position are correctly presented.

Quick Tip to Solve: First recognise all period-end adjustments; only then transfer the adjusted nominal balances through closing entries.

22. Explain 'Transparency control' and 'Scalability' as features of Computerized Accounting System. [4 marks]

Solution:

Concept:

- A Computerized Accounting System processes accounting data and generates reports using accounting software and a database.
- Its controls should make transactions traceable, while its capacity should permit growth in the volume of transactions and number of users.

Step 1: Transparency control Transparency control means that the accounting system provides a clear and traceable record of accounting transactions and of the users who enter or change the data. Authorised persons can examine the relevant records and follow a transaction from its original entry to the ledger and financial reports. Access rights and user identification help define who may enter, alter or view information, while an audit trail records relevant activity and changes. This makes the work of different users accountable and supports verification and internal control. For example, if a voucher is modified, the record of the change helps the responsible reviewer identify what was changed and investigate it. Transparency is achieved through controlled visibility and traceability of accounting work; confidential data remain subject to authorised access.

Step 2: Scalability Scalability is the ability of a Computerized Accounting System to accommodate an increase in the volume of transactions, number of users and accounting requirements as a business grows. The system can be expanded by adding capacity, users or suitable modules without requiring the organisation to discard the entire accounting arrangement. Thus, a business that initially uses the system for a small number of daily transactions can continue to use an appropriately expanded system when its branches, customers and transactions increase. The expanded system should continue to process information efficiently and provide timely reports. Scalability therefore makes the accounting system suitable for changing business needs and supports continuity during expansion.

Step 3: Conclusion Transparency control makes accounting activity visible and traceable to authorised users; scalability enables the system to handle growth in business volume and users.

Quick Tip to Solve: Link transparency control with traceable user activity, and scalability with increasing transaction volume and users.

OR

22. Explain 'Payroll Accounting Subsystem' & 'Costing Subsystem'. [4 marks]

Solution:

Concept:

- A subsystem performs a specialised group of accounting tasks within the integrated computerised accounting system and supplies information to the general ledger.
- Payroll deals with employees' remuneration; costing deals with identifying, accumulating and analysing costs of products, jobs or services.

Step 1: Payroll Accounting Subsystem This subsystem maintains employee records and processes salaries and wages. Its inputs include employee identification, salary rates, attendance, leave, overtime and authorised deductions. It calculates basic pay, allowances and overtime earnings to obtain gross remuneration. Deductions such as provident fund contributions, tax deducted at source and loan recoveries are then applied to determine net pay:

$$\text{Net pay} = \text{Gross earnings} - \text{Deductions}.$$

It generates salary slips, payroll registers and payment details, together with reports of statutory deductions and amounts payable. Payroll totals provide the accounting information for recording salary expense, employee-related liabilities and payments. Thus it supports accurate, timely payment and consistent maintenance of employee-wise remuneration records.

Step 2: Costing Subsystem This subsystem records and classifies the expenditure incurred on producing goods or providing services. It collects material, labour and overhead costs and assigns them to appropriate cost centres, jobs, processes or products. Direct costs are traced to the relevant output, while indirect costs are allocated or apportioned on suitable bases.

It helps ascertain total cost and cost per unit and prepares cost statements and reports. Management can compare actual costs with budgets or standards to identify variations, wastage and areas requiring control. The resulting information supports pricing, profitability assessment and decisions concerning efficient use of resources. For example, the labour cost obtained from payroll can become an input to the costing subsystem for allocating employee time to production jobs.

Step 3: Conclusion The Payroll Accounting Subsystem computes and records employee remuneration and deductions. The Costing Subsystem determines and analyses the cost of goods or services to support cost control and management decisions.

Quick Tip to Solve: Explain payroll through earnings, deductions and net pay; explain costing through cost collection, assignment and control.

23. Name and explain the function which returns the future value of an investment which has constant payment and interest. [6 marks]

Solution:

Concept:

- The FV function returns the future value of an investment using a constant periodic interest rate and constant periodic payments.
- The interest rate and number of periods must use the same time unit. Cash paid out and cash received have opposite signs in spreadsheet financial functions.

Step 1: Name and syntax of the function The required function is **FV (Future Value)**. Its Excel syntax is:

```
FV(rate, nper, pmt, [pv], [type]).
```

It calculates the amount accumulated at the end of the investment period, taking account of compound

interest and any equal deposits made at regular intervals.

Step 2: Explain the compulsory arguments `rate` is the interest rate per payment period. For monthly payments at an annual rate of 12%, use $12\%/12$, not the annual rate directly.

`nper` is the total number of payment periods. For three years of monthly deposits, it is $3 \times 12 = 36$.

`pmt` is the fixed payment made each period. It remains constant throughout the investment term. For a savings investment, deposits are normally entered as negative amounts because they are cash outflows from the investor's perspective.

Step 3: Explain the optional arguments and payment timing `pv` is the present value, or initial lump-sum amount invested. If omitted, Excel assumes zero. An initial investment is entered with the same outflow sign as the periodic deposits.

`type` specifies when payments occur: 0 means the end of each period and 1 means the beginning. If omitted, it is taken as 0.

Step 4: Illustrate the calculation Suppose Rs 1,000 is deposited at the end of every year for three years at a constant annual interest rate of 10%, with no initial deposit. Enter:

$$\texttt{=FV(10\%,3,-1000,0,0)}.$$

The first deposit earns interest for two years, the second for one year, and the final deposit earns no interest before the valuation date. Thus the returned amount is verified by:

$$\begin{aligned} FV &= 1,000(1.10)^2 + 1,000(1.10) + 1,000 \\ &= 1,210 + 1,100 + 1,000 = \text{Rs } 3,310. \end{aligned}$$

The result is positive because it is the future receipt corresponding to the negative deposits.

Step 5: Conclusion The required function is **FV**. It returns the accumulated future value using a constant interest rate and equal periodic payments.

Quick Tip to Solve: Match rate to the payment period, use the opposite sign for deposits and receipts, and check whether payments occur at the beginning or end.