CBSE Class 12 Accountancy Question Paper 2023 with Solution PDF-Set 67-C-1 - Compartment

Question Paper with Solutions

Conducted by the Central Board of Secondary Education (CBSE)

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

General Instructions

(i) This question paper contains **34** questions. **All** questions are **compulsory**.

(ii) This question paper is divided into **two** parts — **Part A** and **Part B**.

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

(iv) **Part B** has two options i.e. (1) Analysis of Financial Statements, and (2) Computerised Accounting. Candidates must attempt only **one** of the given options as per the subject opted in **Part B**.

(v) Questions no. **1** to **16** and **27** to **30** carry **1** mark each.

(vi) Questions no. **17** to **20**, **31** and **32** carry **3** marks each.

(vii) Questions no. **21**, **22** and **33** carry **4** marks each.

(viii) Questions no. **23** to **26** and **34** carry **6** marks each.

(ix) There is no overall choice. However, an internal choice has been provided in **7** questions of **one** mark, **2** questions of **three** marks, **1** question of **four** marks and **2** questions of **six** marks.

Part A (60 marks)

(Accounting for Partnership Firms and Companies)

1(i). Persons who have entered into partnership with one another are individually called as : [1 mark]

(A) Partners

(B) Members

(C) Firm

(D) Owners

Correct Answer: (A) Partners

Solution:

Concept:

- Partnership is the relationship between persons who agree to share the profits of a business carried on by all or any of them acting for all.
- The persons are individually called partners and collectively called a firm.

Step 1: Identify the individual capacity The question asks for the name of each person who enters into the partnership relationship. Each such person is a partner, with rights and obligations arising from the partnership agreement.

Step 2: Distinguish the other terms Firm is the collective name of all the partners, so it does not identify an individual. Members is generally used for members of an association or company. Owners is a broad description of ownership, whereas the precise partnership term sought here is partners.

Step 3: Conclusion The persons are individually called partners. Hence, the correct option is (A).

Quick Tip to Solve: Match the words carefully: individually means partners; collectively means firm.

OR

1(ii). Madhu and Radha were partners in a partnership firm sharing profits and losses in the ratio of 3 : 2. Madhu withdrew Rs. 20,000 in each quarter during the year ended 31.03.2023. Interest on drawings was to be charged @ 6% p.a. Interest on Madhu's drawings will be : [1 mark]

(A) Rs. 3,000

(B) Rs. 2,400

(C) Rs. 1,800

(D) Rs. 4,800

Correct Answer: (B) Rs. 2,400

Solution:

Concept:

- Interest on drawings is calculated as $I = D \times r/100 \times t/12$, where D is total drawings, r the annual rate and t the average period in months.
- When equal periodic drawings are made during the year without specifying the dates within each period, the standard average period is six months.

Step 1: Find total drawings Madhu withdraws Rs 20,000 in each of four quarters. Thus total drawings are

$$D = 20,000 \times 4 = \text{Rs } 80,000.$$

The profit-sharing ratio does not enter the calculation of interest on an individual partner's drawings.

Step 2: Apply the average period The question does not state beginning or end of each quarter, so use six months:

$$I = 80,000 \times \frac{6}{100} \times \frac{6}{12} = \text{Rs } 2,400.$$

Rs 3,000 uses 7.5 months (beginning of quarters); Rs 1,800 uses 4.5 months (end of quarters). Rs 4,800 wrongly charges every withdrawal for a full year.

Step 3: Conclusion Interest on Madhu's drawings is Rs 2,400. Hence, the correct option is (B).

Quick Tip to Solve: For quarterly drawings with no specified withdrawal date, use total annual drawings and a six-month average period.

2(i). A and B were partners in a firm. They admitted C as a new partner for 1/3rd share in the profits of the firm which he acquired from A. A's new share in the profit will be : [1 mark]

(A) 1/2

(B) 1/4

(C) 1/3

(D) 1/6

Correct Answer: (D) 1/6

Solution:

Concept:

- When no profit-sharing ratio is specified, existing partners share profits equally.
- A partner's new share equals the old share minus the share sacrificed to the incoming partner.

Step 1: Establish the original share No original ratio is given for A and B. Therefore each originally has $1/2$ of the profits. C acquires the entire $1/3$ share from A; B sacrifices nothing and retains $1/2$.

Step 2: Deduct the share transferred

$$\text{A's new share} = \frac{1}{2} - \frac{1}{3} = \frac{3-2}{6} = \frac{1}{6}.$$

As a check, $1/6 + 1/2 + 1/3 = 1$. Option (A) is A's unchanged old share, option (C) is C's share, and option (B) would imply a sacrifice of only $1/4$, contrary to the question.

Step 3: Conclusion A's new share is $1/6$. Hence, the correct option is (D).

Quick Tip to Solve: When the old ratio is absent, start with equal shares and subtract the newcomer's entire share only from the named sacrificing partner.

OR

2(ii). P, Q and R were partners in a firm. On 31.03.2022, R died. R's share was taken over by P. P's new share in the profits of the firm will be : [1 mark]

(A) 2/3

(B) 1/3

(C) 1/2

(D) 3/4

Correct Answer: (A) 2/3

Solution:

Concept:

- In the absence of an agreed ratio, partners share profits equally.
- A continuing partner's new share equals the old share plus the share taken over from the deceased partner.

Step 1: Determine the original shares The question supplies no old profit-sharing ratio for P, Q and R. Hence each has an original share of $1/3$. R's whole share is taken over by P, so Q's share remains $1/3$.

Step 2: Add the acquired share

$$\text{P's new share} = \frac{1}{3} + \frac{1}{3} = \frac{2}{3}.$$

The continuing shares add to $2/3 + 1/3 = 1$. Option (B) ignores the gain; option (C) incorrectly assumes equal sharing between survivors despite the stated takeover. Option (D) is incompatible with the original equal shares.

Step 3: Conclusion P's new share is $2/3$. Hence, the correct option is (A).

Quick Tip to Solve: Keep the unaffected partner's share unchanged; add the deceased partner's share only to the partner named as taking it over.

3(i). B and D were partners. According to the provisions of partnership deed, interest on B's capital for the year ended 31.03.2022 was calculated at Rs. 4,000.

The necessary journal entry for transferring interest on B's capital to Profit and Loss Appropriation Account will be : [1 mark]

(A) Profit and Loss Appropriation A/c Dr. Rs. 4,000

To B's Capital A/c Rs. 4,000

(B) Profit and Loss Appropriation A/c Dr. Rs. 4,000

To Interest on B's Capital A/c Rs. 4,000

(C) Interest on B's Capital A/c Dr. Rs. 4,000

To Profit and Loss Appropriation A/c Rs. 4,000

(D) Profit and Loss Appropriation A/c Dr. Rs. 4,000

To B's Current A/c Rs. 4,000

Correct Answer: (B) Profit and Loss Appropriation A/c Dr. Rs. 4,000

To Interest on B's Capital A/c Rs. 4,000

Solution:

Concept:

- Interest on capital is an appropriation of profit and is charged to Profit and Loss Appropriation Account.
- When an Interest on Capital Account has been opened, its debit balance is closed by crediting that account and debiting Profit and Loss Appropriation Account.

Step 1: Identify the transfer required The question asks for transfer of interest on B's capital to Profit and Loss Appropriation Account. It does not ask for the initial allowance to B. The interest account must be credited to close its debit balance, and the appropriation account must be debited.

Step 2: Record the closing entry Journal of the firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.03.2022	Profit and Loss Appropriation A/c Dr. To Interest on B's Capital A/c (Being interest on B's capital transferred to Profit and Loss Appropriation Account)		4,000	4,000

Options (A) and (D) credit the partner directly rather than close the interest account. Option (C) reverses the required transfer.

Step 3: Conclusion Profit and Loss Appropriation A/c is debited and Interest on B's Capital A/c credited with Rs 4,000. Hence, the correct option is (B).

Quick Tip to Solve: Distinguish allowing interest to a partner from closing the Interest on Capital Account into the appropriation account.

OR

3(ii). K and L were partners in a firm. Their partnership deed provided that interest on partner's drawings will be charged @ 12% per annum. Interest on L's drawings for the year ended 31.03.2022 was calculated at Rs. 900.

The necessary journal entry for charging interest on L's drawings will be : [1 mark]

(A) Profit and Loss Appropriation A/c Dr. Rs. 900

To Interest on Drawings A/c Rs. 900

(B) Interest on Drawings A/c Dr. Rs. 900

To Profit and Loss Appropriation A/c Rs. 900

(C) L's Capital/Current A/c Dr. Rs. 900

To Interest on Drawings A/c Rs. 900

(D) Interest on Drawings A/c Dr. Rs. 900

To Partner's Capital/Current A/c Rs. 900

Correct Answer: (C) L's Capital/Current A/c Dr. Rs. 900

To Interest on Drawings A/c Rs. 900

Solution:

Concept:

- Interest on drawings is charged to the partner because the partner has used firm funds for personal purposes.
- Debit the partner's Capital Account under fluctuating capitals, or Current Account under fixed capitals, and credit Interest on Drawings Account.

Step 1: Identify the charging entry Charging interest reduces L's entitlement in the firm. Thus L's Capital/Current Account is debited with Rs 900. Interest on Drawings Account is credited to record the firm's income from this charge; the 12 percent rate need not be reapplied because the interest amount is already calculated.

Step 2: Record the journal entry Journal of the firm

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.03.2022	L's Capital/Current A/c Dr. To Interest on Drawings A/c (Being interest on L's drawings charged)		900	 900

Option (B) is the later transfer of interest to Profit and Loss Appropriation Account. Option (A) reverses that later transfer, while option (D) reverses the charging entry.

Step 3: Conclusion L's Capital/Current A/c is debited and Interest on Drawings A/c credited with Rs 900. Hence, the correct option is (C).

Quick Tip to Solve: For charging interest on drawings, debit the drawing partner first; transfer to the appropriation account is a separate entry.

4. In which of the following cases is the business of a firm not dissolved compulsorily ? [1 mark]

(A) When all but one partner becomes insolvent.

(B) When the business of the firm becomes illegal.

(C) When there is a change in profit sharing ratio between existing partners.

(D) When a partner who is a citizen of a country becomes an alien enemy because of the declaration of war with his country and India.

Correct Answer: (C) When there is a change in profit sharing ratio between existing partners.

Solution:

Concept:

- Dissolution of the firm ends its business relationship; reconstitution changes the existing partnership agreement while business continues.
- A change in the profit-sharing ratio between existing partners is a reconstitution of the firm.

Step 1: Classify the ratio change When existing partners change their profit-sharing ratio, the firm continues its business under a revised agreement. Therefore this event does not compel dissolution of the firm; only the relationship among the partners is reconstituted.

Step 2: Compare the remaining events If all but one partner become insolvent, the partnership cannot continue with a single solvent partner. If the business becomes illegal, it cannot lawfully continue. The stated alien-enemy situation likewise creates a legal bar to the partnership relationship. These are the compulsory-dissolution situations contrasted with an ordinary change in ratio.

Step 3: Conclusion A change in the profit-sharing ratio between existing partners does not compulsorily dissolve the firm. Hence, the correct option is (C).

Quick Tip to Solve: A change in ratio changes the agreement; ask whether the business itself must stop to distinguish it from dissolution of the firm.

5(i). C and D were partners in a firm. E was admitted as a new partner for 1/6 share. E acquired 1/3rd of his share from C and the remaining from D.

The sacrificing ratio of C and D was : [1 mark]

(A) 1 : 2

(B) 1 : 1

(C) 16 : 9

(D) 2 : 1

Correct Answer: (A) 1 : 2

Solution:

Concept:

- Sacrificing ratio is the ratio in which old partners give up their shares of profit to the incoming partner.
- When an incoming partner acquires stated fractions of the new share from old partners, multiply those fractions by the incoming partner's total share.

Step 1: Calculate each sacrifice E's share is $1/6$. C gives one-third of that share and D gives the remaining two-thirds.

$$\text{C's sacrifice} = \frac{1}{3} \times \frac{1}{6} = \frac{1}{18}.$$

$$\text{D's sacrifice} = \frac{2}{3} \times \frac{1}{6} = \frac{2}{18}.$$

Step 2: Form and verify the ratio

$$\text{C:D} = \frac{1}{18} : \frac{2}{18} = 1 : 2.$$

The sacrifices total $3/18 = 1/6$, exactly E's share. Option (B) assumes equal sacrifice; option (D) reverses the partners' order. Option (C), $16 : 9$, does not match the specified one-third and two-thirds split.

Step 3: Conclusion The sacrificing ratio of C and D is $1 : 2$. Hence, the correct option is (A).

Quick Tip to Solve: When the newcomer takes one-third from C and the remainder from D, the sacrifice ratio is immediately one-third to two-thirds.

OR

5(ii). A, B and C were partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. With effect from 01.04.2023, they agreed to share profits and losses equally. Due to change in the profit sharing ratio, B's gain or sacrifice will be : [1 mark]

(A) Gain 1/30

(B) Sacrifice 1/30

(C) Gain 5/30

(D) Sacrifice 4/30

Correct Answer: (A) Gain 1/30

Solution:

Concept:

- Gain is new share minus old share; sacrifice is old share minus new share.
- To compare fractions from different ratios, express both shares with a common denominator.

Step 1: Write B's old and new shares The old ratio is $5:3:2$, so the total number of parts is 10 and B's old share is $3/10$. Under equal sharing among three partners, B's new share is $1/3$.

Step 2: Determine the direction and amount

$$\text{B's gain} = \frac{1}{3} - \frac{3}{10} = \frac{10-9}{30} = \frac{1}{30}.$$

Since the difference is positive, B gains. Option (B) uses the right magnitude but calls it a sacrifice. Option (C) overstates the gain, and option (D) gives a sacrifice that belongs to neither B's direction nor amount.

Step 3: Conclusion B gains $1/30$ of the profits. Hence, the correct option is (A).

Quick Tip to Solve: For B, compare 3/10 with 1/3 using denominator 30; the move from 9/30 to 10/30 is a gain.

6. S and T were partners in a firm sharing profits and losses in the ratio of 3 : 2. They admitted U as a new partner in the firm. On U's admission there existed a provision for bad and doubtful debts of Rs. 7,000. It was decided to write off Rs. 3,000 as bad debts. The remaining debtors were considered as good. The amount to be debited/credited to Revaluation Account on account of the above treatment will be : [1 mark]

(A) Debit Rs. 3,000

(B) Credit Rs. 4,000

(C) Debit Rs. 7,000

(D) Debit Rs. 4,000

Correct Answer: (B) Credit Rs. 4,000

Solution:

Concept:

- An existing provision for doubtful debts absorbs bad debts identified at admission before any additional loss is charged.
- When all remaining debtors are good, the unused provision is no longer required and becomes a revaluation gain.

Step 1: Use the existing provision The firm has already provided Rs 7,000 against possible losses from debtors. The actual bad debts of Rs 3,000 are covered by this provision; they do not create an additional revaluation loss.

Step 2: Calculate the surplus provision

$$\text{Surplus provision} = 7,000 - 3,000 = \text{Rs } 4,000.$$

Since no provision is required for the remaining good debtors, this surplus is credited to Revaluation Account. A debit of Rs 3,000 ignores the existing provision; debits of Rs 7,000 or Rs 4,000 incorrectly treat a released provision as a loss.

Step 3: Conclusion Revaluation Account is credited with Rs 4,000. Hence, the correct option is (B).

Quick Tip to Solve: Subtract the actual bad debts from the old provision; if no new provision is needed, credit the surplus to revaluation.

7. On the dissolution of a partnership firm there existed a balance of Rs. 45,000 in Sundry Debtors Account and a balance of Rs. 8,000 in Provision for Bad Debts Account in the books of the firm. The amount by which 'Realisation Account' will be debited for closing Sundry Debtors Account will be : [1 mark]

(A) Rs. 45,000

(B) Rs. 37,000

(C) Rs. 8,000

(D) Rs. 53,000

Correct Answer: (A) Rs. 45,000

Solution:

Concept:

- On dissolution, non-cash assets are transferred to the debit of Realisation Account at their book balances.
- A provision against an asset is transferred separately to the credit of Realisation Account.

Step 1: Identify the account being closed Sundry Debtors Account has a debit balance of Rs 45,000. Closing this account requires crediting it with the full Rs 45,000 and debiting Realisation Account by the same amount.

Step 2: Distinguish the provision from the asset transfer The Rs 8,000 provision is transferred separately to the credit of Realisation Account. Thus Rs 37,000 is the net effect of both transfers, not the debit for closing Sundry Debtors Account. Rs 8,000 is only the provision, while Rs 53,000 incorrectly adds the provision to the asset balance.

Step 3: Conclusion Realisation Account is debited with Rs 45,000 for closing Sundry Debtors Account. Hence, the correct option is (A).

Quick Tip to Solve: Read whether the question asks for the gross asset transfer or the net effect after transferring its provision.

8. After doing the adjustments regarding drawings Rs. 40,000, share of profit Rs. 24,000 and the additional capital introduced Rs. 32,000, the capital of Ashok, a partner, as on 31.03.2022 was Rs. 5,00,000. His capital as on 01.04.2021 was : [1 mark]

(A) Rs. 4,84,000

(B) Rs. 5,16,000

(C) Rs. 4,46,000

(D) Rs. 5,96,000

Correct Answer: (A) Rs. 4,84,000

Solution:

Concept:

- Drawings reduce a partner's capital, while the share of profit and additional capital increase it.

- Opening capital is obtained by reversing the adjustments already included in the closing capital.

Step 1: Reverse the changes in capital Let opening capital be C. The closing balance satisfies

$$C + 24,000 + 32,000 - 40,000 = 5,00,000.$$

The profit and additional contribution must therefore be deducted from closing capital, while drawings must be added back.

Step 2: Calculate and check opening capital

$$C = 5,00,000 + 40,000 - 24,000 - 32,000 = \text{Rs } 4,84,000.$$

Checking forward gives $4,84,000 + 24,000 + 32,000 - 40,000 = 5,00,000$. The other choices do not satisfy this capital reconciliation; Rs 5,16,000 results from applying the changes in the wrong direction.

Step 3: Conclusion Ashok's opening capital on 01.04.2021 was Rs 4,84,000. Hence, the correct option is (A).

Quick Tip to Solve: To work backwards from closing capital, add back drawings and deduct profits and additional capital.

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9. Josh and Jeevan were partners in a firm. During the year ended 31.03.2022 Jeevan withdrew Rs. 5,000 per month starting from 30.06.2021. The partnership deed provided that interest on drawings will be charged @ 12% per annum. The average number of months for which interest on Jeevan's total drawings will be charged is : [1 mark]

(A) 6 months

(B) 6 1/2 months

(C) 4 1/2 months

(D) 5 months

Correct Answer: (C) 4 1/2 months

Solution:

Concept:

- For equal monthly drawings, the average period is the arithmetic mean of the periods of the first and last drawings.
- Interest runs from each withdrawal date to the end of the accounting year; a withdrawal on the closing date has zero months outstanding.

Step 1: Find the first and last periods The withdrawals are made at month-end from 30 June 2021 through 31 March 2022, giving ten withdrawals. The first remains outstanding for nine months, while the last remains outstanding for zero months.

Step 2: Average the outstanding periods

$$\text{Average period} = \frac{9+0}{2} = 4.5 \text{ months.}$$

Equivalently, the ten periods are 9, 8, 7, ..., 1, 0 months, whose sum is 45 months; dividing by ten gives 4.5. The 12% rate affects the interest amount, not the average period. Six or six-and-a-half months wrongly apply other timing patterns, and five months does not allow for the zero-month final drawing.

Step 3: Conclusion The average period is $4\frac{1}{2}$ months. Hence, the correct option is (C).

Quick Tip to Solve: For partial-year equal drawings, list the first and last dates and average their actual periods to year-end.

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10. X and Z were partners in a firm with capitals of Rs. 45,000 each. They admitted Y as a new partner for 1/3rd share in the profits of the firm. Y brought Rs. 60,000 as his capital. Based on Y's share in the profits of the firm and his capital contribution, the goodwill of the firm will be : [1 mark]

(A) Rs. 1,80,000

(B) Rs. 1,50,000

(C) Rs. 30,000

(D) Rs. 90,000

Correct Answer: (C) Rs. 30,000

Solution:

Concept:

- The incoming partner's capital divided by the acquired profit share gives the implied total capital of the firm.
- Hidden goodwill is the excess of implied total capital over the actual combined capitals of all partners after admission.

Step 1: Find the implied total capital Y contributes Rs 60,000 for a $\frac{1}{3}$ share. Therefore,

$$\text{Implied total capital} = 60,000 \div \frac{1}{3} = \text{Rs } 1,80,000.$$

This is the implied value of the whole firm, not its goodwill alone.

Step 2: Deduct actual combined capitals

$$\text{Actual capitals} = 45,000 + 45,000 + 60,000 = \text{Rs } 1,50,000,$$
$$\text{Hidden goodwill} = 1,80,000 - 1,50,000 = \text{Rs } 30,000.$$

Rs 1,80,000 is the implied total, Rs 1,50,000 is the actual total, and Rs 90,000 includes only the old partners' capitals; none is the goodwill.

Step 3: Conclusion The goodwill of the firm is Rs 30,000. Hence, the correct option is (C).

Quick Tip to Solve: Include the new partner's capital in actual total capital before subtracting it from the implied value.

11. C, D and E were partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. They admitted F as a new partner for 1/4 share in the profits which was sacrificed by C, D and E in the ratio of 2 : 1 : 2. C's new share in the profits will be : [1 mark]

(A) 2/5

(B) 3/5

(C) 3/10

(D) 4/20

Correct Answer: (A) 2/5

Solution:

Concept:

- An old partner's new profit share equals the old share minus the share sacrificed for the incoming partner.
- The sacrificing ratio divides the incoming partner's total share among the old partners; it is distinct from their old profit-sharing ratio.

Step 1: Calculate C's sacrifice C's old share is $\frac{5}{5+3+2} = \frac{1}{2}$. The total sacrifice is F's $\frac{1}{4}$ share, and C bears $\frac{2}{2+1+2} = \frac{2}{5}$ of it. Hence

$$\text{C's sacrifice} = \frac{2}{5} \times \frac{1}{4} = \frac{1}{10}.$$

Step 2: Deduct the sacrifice from the old share

$$\text{C's new share} = \frac{1}{2} - \frac{1}{10} = \frac{4}{10} = \frac{2}{5}.$$

The choice $\frac{3}{5}$ adds the sacrifice instead of deducting it. Neither $\frac{3}{10}$ nor $\frac{4}{20}$ results from subtracting C's correct sacrifice from the old share.

Step 3: Conclusion C's new profit share is $\frac{2}{5}$. Hence, the correct option is (A).

Quick Tip to Solve: First multiply the incoming share by C's fraction of the sacrificing ratio; subtract only that amount from C's old share.

12(i). K.C. Ltd. took over office furniture of Rs. 90,000, office equipment of Rs. 1,80,000 from J.C. Ltd. and its liabilities of Rs. 20,000 for a purchase consideration of Rs. 3,60,000. The payment to J.C. Ltd. was made by issue of 9% debentures of Rs. 50 each at a discount of 10%. The amount to be debited to 'Discount on Issue of Debentures Account' will be : [1 mark]

(A) Rs. 36,000

(B) Rs. 40,000

(C) Rs. 27,000

(D) Rs. 90,000

Correct Answer: (B) Rs. 40,000

Solution:

Concept:

- Purchase consideration is discharged using the issue price of the debentures, not their face value.
- Discount on issue equals the number of debentures multiplied by the discount per debenture; the coupon rate does not determine issue discount.

Step 1: Determine the issue price and quantity The discount per debenture is $50 \times 10\% = \text{Rs } 5$, so its issue price is $50 - 5 = \text{Rs } 45$. Thus

$$\text{Number of debentures} = \frac{3,60,000}{45} = 8,000.$$

The agreed purchase consideration controls the payment; the separate asset and liability values do not replace it.

Step 2: Compute the discount on all debentures

$$\text{Total discount} = 8,000 \times 5 = \text{Rs } 40,000.$$

The face value issued is Rs 4,00,000, exceeding the consideration by Rs 40,000. Rs 36,000 wrongly takes 10% of the issue proceeds; Rs 27,000 uses the asset total, while Rs 90,000 is not the discount on these debentures.

Step 3: Conclusion Discount on Issue of Debentures Account is debited with Rs 40,000. Hence, the correct option is (B).

Quick Tip to Solve: At a 10% discount, the purchase consideration equals 90% of face value; discount is consideration multiplied by 10/90.

OR

12(ii). Raja Ltd. purchased machinery for Rs. 25,00,000 from Sharma Ltd. The payment to Sharma Ltd. was made by issue of equity shares of Rs. 10 each at a premium of 25%. The amount to be credited to the 'Securities Premium Reserve Account' on issue of equity shares will be : [1 mark]

(A) Rs. 25,000

(B) Rs. 50,000

(C) Rs. 62,500

(D) Rs. 5,00,000

Correct Answer: (D) Rs. 5,00,000

Solution:

Concept:

- The issue price of a share equals its face value plus securities premium.
- For consideration other than cash, divide the purchase price by the issue price to obtain shares issued; premium is credited separately.

Step 1: Calculate shares issued The premium per share is $10 \times 25\% = \text{Rs } 2.50$, giving an issue price of Rs 12.50. Therefore,

$$\text{Shares issued} = \frac{25,00,000}{12.50} = 2,00,000.$$

Dividing by face value alone would overstate the number of shares.

Step 2: Separate premium from share capital

$$\text{Securities premium} = 2,00,000 \times 2.50 = \text{Rs } 5,00,000.$$

Share capital is $2,00,000 \times 10 = \text{Rs } 20,00,000$, and together the two credits equal the machinery cost of Rs 25,00,000. Rs 25,000, Rs 50,000 and Rs 62,500 cannot give this reconciliation and arise from incorrect bases or place values.

Step 3: Conclusion Securities Premium Reserve Account is credited with Rs 5,00,000. Hence, the correct option is (D).

Quick Tip to Solve: When issue price is 125% of face value, premium is 25/125 of the total consideration, not 25% of it.

13. ***Assertion (A) :*** **Interest on bearer debentures is paid to a person who produces the interest coupon attached to such debentures.**

Reason (R) : **Bearer debentures are debentures which can be transferred by way of delivery and the company does not keep any record of the debenture holders.**

Select the correct answer from the following : [1 mark]

(A) Assertion (A) is correct, but Reason (R) is wrong.

(B) Both Assertion (A) and Reason (R) are correct, but Reason (R) is **not** the correct explanation of Assertion (A).

(C) Both Assertion (A) and Reason (R) are correct, and Reason (R) is the correct explanation of Assertion (A).

(D) Both Assertion (A) and Reason (R) are wrong.

Correct Answer: (C) Both Assertion (A) and Reason (R) are correct, and Reason (R) is the correct explanation of Assertion (A).

Solution:

Concept:

- Bearer debentures are transferable by delivery, without the company maintaining a register identifying their holders.
- Interest coupons provide the evidence used by the person presenting them to collect the associated interest.

Step 1: Evaluate the assertion The assertion is correct. Interest on bearer debentures is paid against presentation of the attached interest coupon, so the presenter can claim the interest due.

Step 2: Evaluate the reason The reason is also correct. Ownership of bearer debentures passes by delivery, and the company does not keep a record of the holders in the manner used for registered debentures.

Step 3: Check the explanatory link Because the company has no register identifying the current bearer, it relies on production of the interest coupon for payment. The reason therefore directly explains the assertion. Options treating either statement as false are excluded, and the option denying an explanatory link is also excluded.

Step 4: Conclusion Both statements are correct, and the reason correctly explains the assertion. Hence, the correct option is (C).

Quick Tip to Solve: Link the absence of a holder register to payment against a coupon: this establishes the explanation, beyond just checking truth.

14–15. ***Read the following hypothetical situation and answer questions number 14 and 15 on the basis of given information.***

On 1st April, 2022, Zaira Ltd. issued 5000, 8% Debentures of Rs. 100 each at 5% premium, redeemable at a premium of 10% after 3 years.

14. The total interest due on debentures for the year ending 31st March, 2023 will be : [1 mark]

(A) Rs. 40,000

(B) Rs. 25,000

(C) Rs. 50,000

(D) Rs. 75,000

Correct Answer: (A) Rs. 40,000

Solution:

Concept:

- Debenture interest is calculated on the nominal value of debentures, using the stated annual rate.
- Interest for a period equals face value multiplied by the annual rate and the fraction of the year for which the debentures are outstanding. Issue and redemption premiums do not form the interest base.

Step 1: Find the face value and interest period Zaira Ltd. issued 5,000 debentures of Rs 100 each. Their total face value is

$$5{,}000 \times \text{Rs } 100 = \text{Rs } 5{,}00{,}000.$$

From 1st April, 2022 to 31st March, 2023, the debentures remain outstanding for the full twelve months.

Step 2: Apply the annual interest rate The rate is 8% per annum, so the interest due for the year is

$$\text{Rs } 5{,}00{,}000 \times \frac{8}{100} \times \frac{12}{12} = \text{Rs } 40{,}000.$$

Rs 25,000 is the 5% issue premium and Rs 50,000 is the 10% redemption premium; neither is annual interest. Rs 75,000 combines these two premiums and also does not represent interest.

Step 3: Conclusion Total interest due for the year ended 31st March, 2023 is Rs $40{,}000$. Hence, the correct option is (A).

Quick Tip to Solve: Apply 8% to the Rs 5,00,000 face value for one full year; ignore both premiums when calculating debenture interest.

15. 'Loss on Issue of Debentures Account' will be debited by which of the following amount ? [1 mark]

(A) Rs. 75,000

(B) Rs. 40,000

(C) Rs. 50,000

(D) Rs. 25,000

Correct Answer: (C) Rs. 50,000

Solution:

Concept:

- When debentures are issued at a premium and redeemed at a premium, the issue premium is credited separately to Securities Premium Reserve Account.
- The premium payable on redemption is debited to Loss on Issue of Debentures Account at issue. With no discount on issue, that debit equals the redemption premium alone.

Step 1: Calculate the redemption premium The nominal value of the 5,000 debentures is

$$5{,}000 \times \text{Rs } 100 = \text{Rs } 5{,}00{,}000.$$

Redemption takes place at a premium of 10% on nominal value. Therefore, the premium payable on redemption is

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

Step 2: Distinguish the loss debit from other amounts The 5% issue premium of Rs 25,000 is recorded separately in Securities Premium Reserve Account. It is not deducted from the Rs 50,000 debit when recording Loss on Issue of Debentures Account in the issue entry. A later use of securities premium to write off loss is a separate transaction. Thus, Rs 25,000 is not the initial loss debit; Rs 40,000 is one year's interest, and Rs 75,000 incorrectly adds the two premiums.

Step 3: Conclusion Loss on Issue of Debentures Account will be debited by Rs $50{,}000$. Hence, the correct option is (C).

Quick Tip to Solve: For issue at premium and redemption at premium, keep the issue premium separate: the initial loss debit is the redemption premium of 10%.

16. BB Ltd. forfeited 4000 shares of Rs. 10 each for non-payment of final call of Rs. 5 per share. The forfeited amount was Rs. 20,000. The minimum amount per share at which these shares can be re-issued will be : [1 mark]

(A) Rs. 6

(B) Rs. 7

(C) Rs. 5

(D) Rs. 4

Correct Answer: (C) Rs. 5

Solution:

Concept:

- Forfeited shares may be reissued at a discount, but that discount cannot exceed the forfeited amount relating to the shares reissued.
- Minimum reissue price per share equals the paid-up value on reissue less the amount forfeited per share.

Step 1: Find the available discount per share The amount already received and forfeited on 4,000 shares is Rs 20,000. Therefore, the maximum permissible discount on each share is

$$\frac{20,000}{4,000} = \text{Rs } 5.$$

This is also consistent with the unpaid final call of Rs 5 on a share of face value Rs 10.

Step 2: Deduct the permissible discount For reissue as fully paid, the share must be credited at Rs 10. The minimum cash receipt is therefore

$$10 - 5 = \text{Rs } 5 \text{ per share.}$$

Reissue at Rs 6 or Rs 7 is permissible but does not give the minimum. Reissue at Rs 4 would create a discount of Rs 6 per share, exceeding the forfeited amount of Rs 5 per share, and is not permissible.

Step 3: Conclusion The minimum reissue price is Rs 5 per share. Hence, the correct option is (C).

Quick Tip to Solve: Divide the forfeited amount by the shares first, then subtract it from the fully paid value of each share.

17(a). On 01.04.2021, Aman Ltd. purchased from Kamal Ltd. Machinery Rs. 5,00,000, Furniture Rs. 3,00,000 and Land and Building Rs. 40,00,000. It also took over the sundry creditors of Kamal Ltd. of Rs. 8,00,000. The purchase consideration was Rs. 36,00,000. Payment to Kamal Ltd. was made by issue of 9% Debentures of Rs. 100 each at a discount of 10%. On 31.03.2022, the company decided to write off 'Discount on Issue of Debentures Account' according to the provisions of Companies Act, 2013.

Pass necessary journal entries for the above transactions in the books of Aman Ltd. [3 marks]

Solution:

Concept:

- Assets acquired are debited and liabilities assumed are credited. Excess of net assets acquired over purchase consideration is credited to Capital Reserve.
- Debentures issued at a discount discharge the vendor at their issue price; the Debentures Account is credited with their face value.
- Discount on issue is written off against available Securities Premium Reserve and otherwise charged to the Statement of Profit and Loss. No Securities Premium Reserve balance is given here.

Step 1: Calculate the acquisition and debenture amounts **Working Notes** Total assets are Rs 5,00,000 + Rs 3,00,000 + Rs 40,00,000 = Rs 48,00,000. After deducting sundry creditors of Rs 8,00,000, net assets equal Rs 40,00,000. Thus capital reserve is Rs 40,00,000 - Rs 36,00,000 = Rs 4,00,000. Each Rs 100 debenture is issued at Rs 90. Hence,

$$\text{Number of debentures} = \frac{36,00,000}{90} = 40,000.$$

Their nominal value is Rs 40,00,000 and discount is Rs 4,00,000. The 9% coupon does not determine the amount payable to the vendor.

Step 2: Record the acquisition and payment **Journal of Aman Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
01.04.2021	Machinery A/c Dr.		5,00,000	
	Furniture A/c Dr.		3,00,000	
	Land and Building A/c Dr.		40,00,000	
	To Sundry Creditors A/c			8,00,000
	To Kamal Ltd. A/c			36,00,000
	To Capital Reserve A/c			4,00,000
	(Being assets and liabilities taken over, with the excess of net assets over purchase consideration credited to capital reserve)			
01.04.2021	Kamal Ltd. A/c Dr.		36,00,000	
	Discount on Issue of Debentures A/c Dr.		4,00,000	
	To 9% Debentures A/c			40,00,000
	(Being 40,000 debentures of Rs 100 each issued at 10% discount to settle purchase consideration)			

Step 3: Write off the discount at the year end With no Securities Premium Reserve balance available in the question, the discount is charged to the Statement of Profit and Loss. The capital reserve arising

from the acquisition is kept separately.

Journal of Aman Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.03.2022	Statement of Profit and Loss Dr. To Discount on Issue of Debentures A/c (Being discount on issue of debentures written off in full)		4,00,000	4,00,000

Step 4: Conclusion Aman Ltd. records capital reserve of Rs 4,00,000, issues 40,000 debentures with face value Rs 40,00,000 and writes off discount of Rs 4,00,000 on 31.03.2022.

Quick Tip to Solve: Divide the vendor's claim by Rs 90, not Rs 100; use the resulting nominal value to calculate the discount.

OR

17(b). On 01.04.2021, Bain Ltd. purchased from Cayres Ltd., Machinery at Rs. 17,00,000 and Land and Building at Rs. 40,00,000. It also took over its liabilities amounting to Rs. 7,00,000. The purchase consideration of Rs. 60,00,000 was paid as follows : Rs. 5,00,000 through a cheque and the balance by issue of 9% debentures of Rs. 100 each at a premium of 10%.

Pass necessary journal entries for the above transactions in the books of Bain Ltd. [3 marks]

Solution:

Concept:

- When purchase consideration exceeds the net assets acquired, the difference is debited to Goodwill Account.
- Debentures issued at a premium settle the vendor at issue price. Their face value is credited to Debentures Account and the excess to Securities Premium Reserve Account.

Step 1: Determine goodwill and the debenture issue **Working Notes** Machinery and land and building total Rs 17,00,000 + Rs 40,00,000 = Rs 57,00,000. Deducting the liabilities taken over gives net assets of Rs 50,00,000. The purchase consideration is Rs 60,00,000, so goodwill is Rs 10,00,000. After the cheque payment of Rs 5,00,000, Rs 55,00,000 remains payable. Issue price per debenture is Rs 100 + Rs 10 = Rs 110. Therefore,

$$\text{Number issued} = \frac{55,00,000}{110} = 50,000.$$

The nominal value is Rs 50,00,000 and securities premium is Rs 5,00,000. The total of these two credits equals the unpaid purchase consideration.

Step 2: Record the assets and liabilities taken over **Journal of Bain Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
01.04.2021	Machinery A/c Dr.		17,00,000	
	Land and Building A/c Dr.		40,00,000	
	Goodwill A/c Dr.		10,00,000	
	To Liabilities A/c			7,00,000
	To Cayres Ltd. A/c			60,00,000
	(Being assets and liabilities taken over, with the excess purchase consideration recorded as goodwill)			

This entry balances at Rs 67,00,000 on each side, including the goodwill acquired.

Step 3: Settle the vendor through cheque and debentures **Journal of Bain Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
01.04.2021	Cayres Ltd. A/c Dr.		60,00,000	
	To Bank A/c			5,00,000
	To 9% Debentures A/c			50,00,000
	To Securities Premium Reserve A/c			5,00,000
	(Being purchase consideration settled by cheque and issue of 50,000 debentures of Rs 100 each at 10% premium)			

Step 4: Conclusion Bain Ltd. records goodwill of Rs 10,00,000 and settles Cayres Ltd. by Rs 5,00,000 through bank plus 50,000 debentures, recording Rs 5,00,000 as securities premium.

Quick Tip to Solve: Deduct the cheque before dividing by Rs 110; goodwill comes from comparing the entire purchase consideration with net assets.

18. On 01.04.2022, Ravi, Kavi and Avi started a partnership firm with fixed capitals of Rs. 6,00,000, Rs. 6,00,000 and Rs. 3,00,000 respectively. The partnership deed provided for the following :

(i) Interest on capital @ 10% per annum.

(ii) Interest on drawings @ 12% per annum.

(iii) An annual salary of Rs. 1,20,000 to Avi.

(iv) Profits and losses were to be shared in the ratio of their capitals.

The net profit of the firm for the year ended 31.03.2023 was Rs. 3,08,000. Interest on partners' drawings was Ravi Rs. 4,800, Kavi Rs. 4,200 and Avi Rs. 3,000.

Prepare Profit and Loss Appropriation Account of Ravi, Kavi and Avi for the year ended 31.03.2023.

[3 marks]

Solution:

Concept:

- Interest on drawings is credited to Profit and Loss Appropriation Account, increasing the amount available for appropriation.
- Interest on capital and partners' salaries are debited before the residual profit is shared in the agreed ratio.

- When capitals are fixed, interest, salary, interest on drawings and profit shares are transferred to partners' Current Accounts.

Step 1: Calculate interest and the profit-sharing ratio **Working Notes** All three partners introduced capital on 01.04.2022, so interest is allowed for a full year at 10%:

$$\text{Ravi} : 6,00,000 \times 10\% = \text{Rs } 60,000,$$
$$\text{Kavi} : 6,00,000 \times 10\% = \text{Rs } 60,000,$$
$$\text{Avi} : 3,00,000 \times 10\% = \text{Rs } 30,000.$$

Total interest on capital is Rs 1,50,000. Their capital ratio, and hence profit-sharing ratio, is $6,00,000 : 6,00,000 : 3,00,000 = 2 : 2 : 1$. The given interest on drawings totals Rs 4,800 + Rs 4,200 + Rs 3,000 = Rs 12,000; it need not be recalculated using the stated 12% rate.

Step 2: Find the residual profit to distribute Net profit plus interest on drawings gives Rs 3,08,000 + Rs 12,000 = Rs 3,20,000 available for appropriation. After capital interest and Avi's salary,

$$\text{Residual profit} = 3,20,000 - 1,50,000 - 1,20,000 = \text{Rs } 50,000.$$

In the ratio 2:2:1, Ravi receives Rs 20,000, Kavi Rs 20,000 and Avi Rs 10,000. These residual shares are additional to interest on capital and Avi's salary.

Step 3: Prepare the appropriation account **Profit and Loss Appropriation Account for the year ended 31.03.2023**

Dr. Particulars	Amount (Rs)	Particulars Cr.	Amount (Rs)
To Interest on Capital:		By Profit and Loss A/c	3,08,000
Ravi's Current A/c	60,000	By Interest on Drawings:	
Kavi's Current A/c	60,000	Ravi's Current A/c	4,800
Avi's Current A/c	30,000	Kavi's Current A/c	4,200
To Avi's Current A/c (Salary)	1,20,000	Avi's Current A/c	3,000
To Partners' Current A/cs (Profit):			
Ravi	20,000		
Kavi	20,000		
Avi	10,000		
Total	3,20,000	Total	3,20,000

The account closes after distributing all residual profit, so no balance is carried forward.

Step 4: Conclusion The Profit and Loss Appropriation Account totals Rs 3,20,000 on each side. The residual profit of Rs 50,000 is shared by Ravi, Kavi and Avi as Rs 20,000, Rs 20,000 and Rs 10,000 respectively.

Quick Tip to Solve: Add the given interest on drawings to profit first; with fixed capitals, route every appropriation through Current Accounts.

19. P and Q were partners in a firm sharing profits and losses in the ratio of 2 : 1. On 01.04.2022, they admitted R as a new partner for 1/10th share of profits with a guaranteed minimum of Rs. 50,000. P and Q continued to share profits as before but agreed to share any deficiency on account of guarantee to R in the ratio of 3 : 2. The net profit of the firm for the year ended 31.03.2023 was Rs. 3,00,000. Pass necessary journal entries in the books of P and Q for the above transactions. [3 marks]

Solution:

Concept:

- A guaranteed partner first receives his normal share of the firm's profit. Any excess of the guaranteed minimum over this share is the deficiency.
- The guaranteeing partners bear the deficiency in their agreed guarantee ratio, which may differ from their profit-sharing ratio. The total profit distributed remains unchanged.

Step 1: Working Notes: calculate the normal profit shares R receives $1/10$ of the profit. P and Q share the remaining $9/10$ in their old ratio of $2 : 1$. Thus,

$$P = \frac{9}{10} \times \frac{2}{3} = \frac{6}{10}, \qquad Q = \frac{9}{10} \times \frac{1}{3} = \frac{3}{10}, \qquad R = \frac{1}{10}.$$

The new profit-sharing ratio is $6 : 3 : 1$. On the profit of Rs 3,00,000, the normal shares are P: Rs 1,80,000, Q: Rs 90,000 and R: Rs 30,000.

Step 2: Working Notes: allocate the deficiency R's normal share falls below the guaranteed minimum:

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

P bears $20,000 \times 3/5 = \text{Rs } 12,000$, and Q bears $20,000 \times 2/5 = \text{Rs } 8,000$. The guarantee ratio $3 : 2$, rather than the old profit ratio, applies to this adjustment.

Step 3: Record the profit distribution and guarantee adjustment **Journal of the Firm**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.03.2023	Profit and Loss Appropriation A/c Dr.		3,00,000	
	To P's Capital A/c			1,80,000
	To Q's Capital A/c			90,000
	To R's Capital A/c			30,000
	(Being profit distributed in the ratio of 6:3:1)			
31.03.2023	P's Capital A/c Dr.		12,000	
	Q's Capital A/c Dr.		8,000	
	To R's Capital A/c			20,000
	(Being R's guaranteed profit deficiency borne by P and Q in the ratio of 3:2)			

The first entry allocates the normal shares; the second transfers the deficiency from the guarantors to R without altering the firm's total profit.

Step 4: Conclusion The final profit credits are P: Rs 1,68,000; Q: Rs 82,000; and R: Rs 50,000. Their total is Rs 3,00,000, and R receives his guaranteed minimum.

Quick Tip to Solve: Calculate R's normal one-tenth share first; use 3:2 only for the Rs 20,000 deficiency, not for distributing the whole profit.

20(a). Nisha, Priya and Rajat were partners in a firm sharing profits in the ratio of 2 : 2 : 1. The firm closes its books on 31st March every year. Priya died on 1st July 2022. On Priya's death, the goodwill of the firm was valued at Rs. 3,00,000 and her share in the profits of the firm till the time of her death was to be calculated on the basis of previous year's profit which was Rs. 6,00,000.

Pass necessary journal entries for the treatment of goodwill and Priya's share of profit at the time of her death. [3 marks]

Solution:

Concept:

- The deceased partner's goodwill share equals the firm's goodwill multiplied by her old profit share. Continuing partners compensate her through their capital accounts in their gaining ratio.
- Profit up to death, when estimated from the previous year's profit, equals annual profit multiplied by the elapsed fraction of the year and the deceased partner's share. It is debited to Profit and Loss Suspense Account.

Step 1: Working Notes: calculate goodwill and the gaining ratio Priya's old share is $2/5$. Hence her share of goodwill is

$$3,00,000 \times \frac{2}{5} = \text{Rs } 1,20,000.$$

No new ratio is given, so Nisha and Rajat continue in their relative old ratio of $2 : 1$. Their gains are

$$\text{Nisha: } \frac{2}{3} - \frac{2}{5} = \frac{4}{15}, \qquad \text{Rajat: } \frac{1}{3} - \frac{1}{5} = \frac{2}{15}.$$

The gaining ratio is $2 : 1$. Nisha bears Rs 80,000 and Rajat bears Rs 40,000. Goodwill is adjusted directly without raising a goodwill asset.

Step 2: Working Notes: calculate Priya's profit up to death From 1 April 2022 to 1 July 2022, the elapsed period is three months. On the prescribed previous-year basis, Priya's profit share is

$$6,00,000 \times \frac{3}{12} \times \frac{2}{5} = \text{Rs } 60,000.$$

This is an estimated interim share because the firm normally closes its books only on 31 March.

Step 3: Pass the entries on Priya's death **Journal of the Firm**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
01.07.2022	Nisha's Capital A/c Dr. Rajat's Capital A/c Dr. To Priya's Capital A/c (Being Priya's goodwill share adjusted through the gaining partners' capital accounts in the ratio of 2:1)		80,000 40,000	 1,20,000
01.07.2022	Profit and Loss Suspense A/c Dr. To Priya's Capital A/c (Being Priya's estimated share of profit for three months up to her death credited to her capital account)		60,000	60,000

Step 4: Conclusion Credit Priya's Capital Account with Rs 1,20,000 for goodwill and Rs 60,000 for interim profit, giving a total credit of Rs 1,80,000 for these two adjustments.

Quick Tip to Solve: Count April, May and June for the profit estimate; debit the surviving partners for goodwill, but debit Profit and Loss Suspense for interim profit.

OR

20(b). Sharma and Verma were partners in a firm sharing profits and losses in the ratio of 3 : 2. Their fixed capitals were Rs. 14,00,000 and Rs. 10,00,000 respectively. The partnership deed provided for the following :

(i) Interest on capital @ 10% per annum.

(ii) Interest on drawings @ 12% per annum.

During the year ended 31.03.2023, Sharma withdrew Rs. 2,00,000 and Verma withdrew Rs. 1,00,000. After preparing the accounts for the year ended 31.03.2023, it was realised that interest on capital was not allowed and interest on drawings was not charged.

Showing your working notes clearly pass necessary journal entries in the books of the firm to rectify the above error. [3 marks]

Solution:

Concept:

- Interest on capital is credited to partners and interest on drawings is debited to them. Omitted appropriations also change the residual profit shared by the partners.
- Where withdrawal dates are unspecified, interest on total annual drawings is calculated for an average period of six months. With fixed capitals, adjustments are made in current accounts.

Step 1: Working Notes: compute the omitted interest Interest on capital is calculated for the full year:

$$\text{Sharma: } 14,00,000 \times 10\% = \text{Rs } 1,40,000,$$

$$\text{Verma: } 10,00,000 \times 10\% = \text{Rs } 1,00,000.$$

Drawing dates are not given, so use the standard average period of six months:

$$\text{Sharma: } 2,00,000 \times 12\% \times \frac{6}{12} = \text{Rs } 12,000,$$

$$\text{Verma: } 1,00,000 \times 12\% \times \frac{6}{12} = \text{Rs } 6,000.$$

Total interest on capital is Rs 2,40,000 and total interest on drawings is Rs 18,000.

Step 2: Working Notes: determine the net adjustment Allowing interest on capital reduces divisible profit, while charging interest on drawings increases it. The net reduction is

$$2,40,000 - 18,000 = \text{Rs } 2,22,000.$$

This excess profit already credited must be withdrawn in the ratio $3 : 2$: Rs 1,33,200 from Sharma and Rs 88,800 from Verma.

Adjustment	Sharma (Rs)	Verma (Rs)
Interest on capital: credit	1,40,000	1,00,000
Interest on drawings: debit	12,000	6,000
Excess profit already credited: debit	1,33,200	88,800
Net adjustment	5,200 Dr.	5,200 Cr.

Thus Sharma has received Rs 5,200 too much, whereas Verma has received Rs 5,200 too little. The net adjustments cancel, as required for a correction between partners.

Step 3: Record the single rectifying entry **Journal of the Firm**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
31.03.2023	Sharma's Current A/c Dr.		5,200	
	To Verma's Current A/c			5,200
	(Being omitted interest on capital and drawings and the resulting profit-sharing adjustment rectified)			

Current accounts are used because the partners maintain fixed capitals. The entry transfers the excess credit from Sharma to Verma.

Step 4: Conclusion Debit Sharma's Current Account and credit Verma's Current Account by Rs 5,200 each to rectify both omissions.

Quick Tip to Solve: After calculating the two kinds of interest, reverse the resulting excess divisible profit in 3:2 before finding the single current-account adjustment.

21. MM Ltd. is registered with an authorised share capital of Rs. 10,00,00,000 was divided into 1,00,00,000 equity shares of Rs. 10 each. The company invited applications for issuing 10,00,000 equity shares. The amount per share was payable as follows :

On Application - Rs. 3 per share

On Allotment - Rs. 4 per share

On First and Final Call - Rs. 3 per share

The issue was fully subscribed. All calls were made and were duly received except the first and final call on 1000 shares.

Present the share capital in the Balance Sheet of the company as per the provisions of Schedule III Part I of the Companies Act, 2013 and also prepare 'Notes to Accounts'. [4 marks]

Solution:

Concept:

- Authorised capital is the maximum capital permitted by the company's memorandum. Issued capital is the face value of shares offered for subscription.
- Subscribed capital is disclosed separately as fully paid and not fully paid. Calls-in-arrears reduce the called-up amount to arrive at paid-up share capital.

Step 1: Calculate the called-up and paid-up amounts All three instalments have been called, so the called-up amount per share is $3 + 4 + 3 = \text{Rs } 10$. The issue of 10,00,000 shares was fully subscribed.

$$\begin{aligned} \text{Called-up capital} &= 10,00,000 \times 10 = \text{Rs } 1,00,00,000, \\ \text{Calls-in-arrears} &= 1,000 \times 3 = \text{Rs } 3,000, \\ \text{Paid-up capital} &= 1,00,00,000 - 3,000 = \text{Rs } 99,97,000. \end{aligned}$$

Of the subscribed shares, $10,00,000 - 1,000 = 9,99,000$ shares are fully paid; 1,000 shares have only Rs 7 per share paid. The default does not reduce the number of shares issued or subscribed.

Step 2: Present the Balance Sheet extract **MM Ltd. — Balance Sheet (Extract)**

Particulars	Note No.	Amount (Rs)
I. EQUITY AND LIABILITIES		
1. Shareholders' funds		
(a) Share capital	1	99,97,000

The share-capital line reports the paid-up amount. Authorised and issued amounts are disclosed in the accompanying note, rather than added to this balance.

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

Particulars	Amount (Rs)
Authorised capital	
1,00,00,000 equity shares of Rs 10 each	10,00,00,000
Issued capital	
10,00,000 equity shares of Rs 10 each	1,00,00,000
Subscribed and fully paid-up capital	
9,99,000 equity shares of Rs 10 each	99,90,000
Subscribed but not fully paid-up capital	
1,000 equity shares of Rs 10 each, fully called-up	10,000
Less: Calls-in-arrears	(3,000)
Subtotal: Subscribed but not fully paid-up capital	7,000
Total paid-up share capital	**99,97,000**

Step 4: Conclusion MM Ltd. will show **Rs 99,97,000** as share capital under Shareholders' funds, with Note 1 distinguishing fully paid and partly paid subscribed shares. Calls-in-arrears are Rs 3,000.

Quick Tip to Solve: First separate 9,99,000 fully paid shares from 1,000 defaulting shares; deduct only the unpaid Rs 3 per defaulting share, not its full Rs 10 face value.

22. B, C and D were partners in a firm sharing profits and losses in the ratio of 3 : 5 : 2. On 31.03.2022 their Balance Sheet was as follows :

Balance Sheet of B, C and D as at 31st March, 2022

Liabilities		Amount (Rs.)	Assets	Amount (Rs.)
Creditors		1,10,000	Building	2,00,000
Reserve Fund		60,000	Machinery	3,00,000
Capitals :			Stock	2,10,000
B	3,00,000		Debtors	80,000
C	2,50,000		Bank	80,000
D	1,50,000	7,00,000		
		8,70,000		8,70,000

C died on 01.10.2022. On C's death, goodwill was valued at Rs. 1,87,500. The revaluation of assets and reassessment of liabilities resulted into a loss of Rs. 10,000. The partnership deed provided that on the death of a partner, goodwill will be treated without opening goodwill account. C's share of profit till the date of his death was calculated at Rs. 70,000.

Prepare C's Capital account to be presented to his executors at the time of his death and also C's Executor's account, assuming that half the amount due to him was paid immediately on C's death.

[4 marks]

Solution:

Concept:

- A deceased partner's capital is credited with the opening balance, share of accumulated reserves, goodwill compensation and profit earned up to death. The share of revaluation loss is debited.
- Where goodwill is adjusted without opening a Goodwill Account, the continuing partners' capital accounts bear the deceased partner's share in their gaining ratio. The final amount due is transferred to the Executor's Account.

Step 1: Calculate C's entitlements and goodwill adjustment **Working Notes**

C's share in the old profit-sharing ratio is $5/10 = 1/2$.

$$\text{Reserve entitlement} = 60,000 \times \frac{1}{2} = \text{Rs } 30,000,$$

$$\text{Goodwill entitlement} = 1,87,500 \times \frac{1}{2} = \text{Rs } 93,750,$$

$$\text{Revaluation loss} = 10,000 \times \frac{1}{2} = \text{Rs } 5,000.$$

No revised ratio is given; B and D continue in their relative old ratio $3 : 2$. Thus their gains are $3/5 - 3/10 = 3/10$ and $2/5 - 2/10 = 2/10$, respectively. They compensate C in the gaining ratio $3 : 2$: B bears $93,750 \times 3/5 = $ Rs $56,250$, and D bears $93,750 \times 2/5 = $ Rs $37,500$. C's capital is credited directly; no Goodwill Account is opened. The given profit share of Rs 70,000 already relates to the period up to death, so it must not be halved again.

Step 2: Prepare C's Capital Account **C's Capital Account as at 1st October, 2022**

Dr.		Cr.	
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Revaluation A/c	5,000	By Balance b/d	2,50,000
To C's Executor's A/c	4,38,750	By Reserve Fund	30,000
		By B's Capital A/c	56,250
		By D's Capital A/c	37,500
		By Profit and Loss Suspense A/c	70,000
Total	**4,43,750**	**Total**	**4,43,750**

The credit total is Rs 4,43,750. Deducting C's Rs 5,000 share of revaluation loss leaves Rs 4,38,750 due to his estate. Transfer of this amount closes C's Capital Account; no capital balance is carried forward for the deceased partner.

Step 3: Record the immediate payment and outstanding liability Half the amount due is paid immediately on 1st October, 2022:

$$\text{Immediate payment} = \frac{4,38,750}{2} = \text{Rs } 2,19,375.$$

The other half remains a liability to C's executor.

C's Executor's Account as at 1st October, 2022

Dr.		Cr.	
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Bank A/c	2,19,375	By C's Capital A/c	4,38,750
To Balance c/d	2,19,375		
Total	**4,38,750**	**Total**	**4,38,750**
		By Balance b/d	2,19,375

The carried-forward credit balance represents the amount still payable after the immediate settlement. No interest is added because no later payment date or interest adjustment is specified.

Step 4: Conclusion C's executor is entitled to **Rs 4,38,750**. Of this, **Rs 2,19,375** is paid immediately and **Rs 2,19,375** remains payable.

Quick Tip to Solve: Credit C with half the reserve and goodwill, debit half the revaluation loss, and add the full given profit share before dividing the executor's settlement into two equal parts.

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23. Pass necessary journal entries for the issue of debentures in the books of YK Ltd. :

(i) Issued 500, 9% debentures of Rs. 1,000 each at par, redeemable at par.

(ii) Issued Rs. 20,00,000, 10% debentures at 6% discount, redeemable at par.

(iii) Issued 2000, 8% debentures of Rs. 100 each at a discount of 2%, redeemable at a premium of 4%. [6 marks]

Solution:

Concept:

- Debentures are credited with their nominal value. Cash received equals nominal value less any discount allowed on issue.
- A premium payable on redemption is recognised when the debentures are issued. Loss on issue includes both the issue discount and the redemption premium.
- The stated coupon rate determines interest; it does not determine the amount received on issue. No interest or actual redemption entry is required here.

Step 1: (i) Issue at par, redeemable at par The face value of the issue is $500 \times \text{Rs } 1,000 = \text{Rs } 5,00,000$. Both the issue price and the redemption price equal face value; therefore, cash received and the debenture liability are each Rs 5,00,000. There is no discount, redemption premium or loss on issue.

Journal of YK Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		5,00,000	
	To 9% Debentures A/c			5,00,000
	(Being 500 debentures of Rs 1,000 each issued at par, redeemable at par)			

Step 2: (ii) Issue at a discount, redeemable at par Discount on issue is calculated on the nominal

value of Rs 20,00,000:

$$\text{Discount} = 20,00,000 \times \frac{6}{100} = \text{Rs } 1,20,000,$$
$$\text{Cash received} = 20,00,000 - 1,20,000 = \text{Rs } 18,80,000.$$

Redemption is at par, so no premium on redemption is recognised. The full nominal liability is credited even though the cash proceeds are lower.

Journal of YK Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		18,80,000	
	Discount on Issue of Debentures A/c Dr.		1,20,000	
	To 10% Debentures A/c			20,00,000
	(Being 10% debentures issued at a discount of 6%, redeemable at par)			

Step 3: (iii) Issue at a discount, redeemable at a premium The nominal value is $2,000 \times \text{Rs } 100 = \text{Rs } 2,00,000$. Compute the two components of the loss separately:

$$\text{Issue discount} = 2,00,000 \times \frac{2}{100} = \text{Rs } 4,000,$$
$$\text{Cash received} = 2,00,000 - 4,000 = \text{Rs } 1,96,000,$$
$$\text{Redemption premium} = 2,00,000 \times \frac{4}{100} = \text{Rs } 8,000,$$
$$\text{Loss on issue} = 4,000 + 8,000 = \text{Rs } 12,000.$$

The redemption premium is a liability arising on issue, although it will be paid later. It increases the loss on issue; it does not reduce the present cash proceeds.

Journal of YK Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr.		1,96,000	
	Loss on Issue of Debentures A/c Dr.		12,000	
	To 8% Debentures A/c			2,00,000
	To Premium on Redemption of Debentures A/c			8,000
	(Being 2,000 debentures of Rs 100 each issued at 2% discount and redeemable at 4% premium)			

The third entry balances at Rs 2,08,000 on each side: debit Rs 1,96,000 plus Rs 12,000 equals credit Rs 2,00,000 plus Rs 8,000.

Step 4: Conclusion The journal entries above record proceeds of Rs 5,00,000, Rs 18,80,000 and Rs 1,96,000 in cases (i), (ii) and (iii), respectively. Case (ii) has an issue discount of Rs 1,20,000; case (iii) has a total loss on issue of Rs 12,000 and a redemption premium liability of Rs 8,000.

Quick Tip to Solve: Calculate discount and redemption premium on face value separately; debit their total as loss when both occur in the same issue.

24. M, S and R were partners in a firm sharing profits and losses in the ratio of 2 : 1 : 2. On 31.03.2022, their Balance Sheet was as follows :

Balance Sheet of M, S and R as at 31st March, 2022

Liabilities		Amount (Rs.)	Assets	Amount (Rs.)
Creditors		80,000	Fixed Assets	1,20,000
Capitals:			Stock	70,000
M	60,000		Debtors	20,000
S	50,000		Bank	60,000
R	30,000	1,40,000		
Profit and Loss A/c		50,000		
		2,70,000		2,70,000

On the above date the firm was dissolved. Fixed assets realised Rs. 1,20,000 and stock realised Rs. 10,000. Debtors were realised at their book value and liabilities were paid in full.

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

Solution:

Concept:

- On dissolution, assets other than cash or bank are transferred to the debit of Realisation Account; external liabilities are transferred to its credit. Receipts from assets are credited and payments of liabilities are debited to that account.
- Accumulated profit and realisation profit or loss are distributed among partners in their profit-sharing ratio, here $2 : 1 : 2$.
- After all adjustments, the partners' remaining credit capital balances are paid through Bank Account. The opening bank balance is not transferred to Realisation Account.

Step 1: Determine accumulated-profit shares and realisation loss The Profit and Loss Account appears on the liabilities side, so its Rs 50,000 balance is an accumulated profit. Credit it to the partners' capital accounts in the ratio $2 : 1 : 2$:

$$\text{M's share} = 50,000 \times \frac{2}{5} = \text{Rs } 20,000,$$
$$\text{S's share} = 50,000 \times \frac{1}{5} = \text{Rs } 10,000,$$
$$\text{R's share} = 50,000 \times \frac{2}{5} = \text{Rs } 20,000.$$

Fixed assets and debtors realise their book values, and creditors are paid in full. Thus the only loss is on stock: Rs 70,000 less Rs 10,000, namely Rs 60,000. The shares of this loss are Rs 24,000, Rs 12,000 and Rs 24,000 for M, S and R respectively. These amounts are debited to their capital accounts.

Step 2: Prepare Realisation Account Transfer fixed assets, stock and debtors at their book values. The combined proceeds received through bank are Rs 1,20,000 + Rs 10,000 + Rs 20,000 = Rs 1,50,000. Creditors of Rs 80,000 are transferred and then paid in full.

Realisation Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Fixed Assets A/c	1,20,000	By Creditors A/c	80,000
To Stock A/c	70,000	By Bank A/c:	
To Debtors A/c	20,000	Fixed assets	1,20,000
To Bank A/c (creditors)	80,000	Stock	10,000
		Debtors	20,000
		By Partners' Capital A/cs (loss):	
		M	24,000
		S	12,000
		R	24,000
Total	2,90,000	Total	2,90,000

The loss is entered on the credit side to close Realisation Account; the corresponding debit is to the partners' capital accounts. The account closes with no balance carried forward.

Step 3: Prepare the partners' capital accounts and settle balances Each partner's final settlement equals opening capital plus accumulated-profit share minus realisation-loss share:

$$\text{M} : 60,000 + 20,000 - 24,000 = \text{Rs } 56,000,$$
$$\text{S} : 50,000 + 10,000 - 12,000 = \text{Rs } 48,000,$$
$$\text{R} : 30,000 + 20,000 - 24,000 = \text{Rs } 26,000.$$

M's Capital Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Realisation A/c	24,000	By Balance b/d	60,000
To Bank A/c	56,000	By Profit and Loss A/c	20,000
Total	80,000	Total	80,000

S's Capital Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Realisation A/c	12,000	By Balance b/d	50,000
To Bank A/c	48,000	By Profit and Loss A/c	10,000
Total	60,000	Total	60,000

R's Capital Account

Dr. Particulars	Amount (Rs)	Particulars	Amount (Rs) Cr.
To Realisation A/c	24,000	By Balance b/d	30,000
To Bank A/c	26,000	By Profit and Loss A/c	20,000
Total	50,000	Total	50,000

The capital accounts close after payment; no balance is carried forward following dissolution. As a check, bank available for capital settlement is Rs 60,000 + Rs 1,50,000 - Rs 80,000 = Rs 1,30,000. Payments to partners total Rs 56,000 + Rs 48,000 + Rs 26,000 = Rs 1,30,000, leaving bank at nil.

Step 4: Conclusion Realisation loss is Rs 60,000, shared by M, S and R as Rs 24,000, Rs 12,000 and Rs 24,000. After distributing accumulated profit and charging this loss, final bank payments are M: Rs 56,000; S: Rs 48,000; R: Rs 26,000.

Quick Tip to Solve: Keep the opening bank balance out of Realisation Account and transfer a credit Profit and Loss balance directly to partners' capitals before settling them.

25(a). CCL Ltd. invited applications for issuing 75,000 equity shares of Rs. 10 each at a premium of Rs. 3 per share.

The amount was payable as follows :

On Application - Rs. 2 per share

On Allotment - Rs. 6 per share (including premium)

On First Call - Rs. 3 per share

On Second and Final Call - Balance

Applications for 1,20,000 shares were received. Application for 45,000 shares were rejected and the excess application money was refunded. Full allotment was made to remaining applicants. All moneys due were received except for Harish, a shareholder holding 2000 shares, who failed to pay the first and second and final call money.

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

Solution:

Concept:

- Share Capital is credited with the face-value portion called up; the premium is credited separately to Securities Premium. Here the total issue price is Rs 13 per share.
- Application money on rejected applications is refunded. Since the remaining applicants receive full allotment, no application surplus is adjusted against allotment.
- Calls in Arrears records amounts due but unpaid. The call account is credited with its full amount due, against Bank for receipts and Calls in Arrears for the shortfall.

Step 1: Calculate the instalments and unpaid calls **Working Notes**

Of the Rs 6 allotment instalment, Rs 3 is premium and Rs 3 is share capital. The final call is the balance of the total issue price:

$$\text{Final call per share} = 13 - (2 + 6 + 3) = \text{Rs } 2.$$

The capital instalments therefore total $2 + 3 + 3 + 2 = \text{Rs } 10$. Accepted applications cover $1,20,000 - 45,000 = 75,000$ shares. Harish's unpaid first call is $2,000 \times 3 = \text{Rs } 6,000$, and his unpaid final call is $2,000 \times 2 = \text{Rs } 4,000$. There is no default on allotment or premium.

Step 2: Record application money and its disposal Application receipts are $1,20,000 \times 2 = \text{Rs } 2,40,000$; the refund is $45,000 \times 2 = \text{Rs } 90,000$. The balance of Rs 1,50,000 becomes share capital.

Journal of CCL Ltd.

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Bank A/c Dr. To Share Application A/c (Being application money received on 1,20,000 shares at Rs 2 each)		2,40,000	 2,40,000
	Share Application A/c Dr. To Share Capital A/c To Bank A/c (Being application money on 75,000 allotted shares transferred to capital and money on 45,000 rejected shares refunded)		2,40,000	 1,50,000 90,000

Step 3: Record allotment becoming due and being received Allotment due is $75,000 \times 6 = \text{Rs } 4,50,000$. Its capital and premium components are each $75,000 \times 3 = \text{Rs } 2,25,000$. All applicants, including Harish, pay this instalment.

Journal of CCL Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Allotment A/c Dr. To Share Capital A/c To Securities Premium A/c (Being allotment money due, including premium of Rs 3 per share)		4,50,000	 2,25,000 2,25,000
	Bank A/c Dr. To Share Allotment A/c (Being allotment money received in full)		4,50,000	 4,50,000

Step 4: Record the first call and its receipt First call due is $75,000 \times 3 = \text{Rs } 2,25,000$. Excluding Harish's Rs 6,000 default, the bank receives Rs 2,19,000.

Journal of CCL Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share First Call A/c Dr. To Share Capital A/c (Being first call of Rs 3 per share due)		2,25,000	 2,25,000
	Bank A/c Dr. Calls in Arrears A/c Dr. To Share First Call A/c (Being first call received except Rs 6,000 due from Harish)		2,19,000 6,000	 2,25,000

Step 5: Record the second and final call The final call due is $75,000 \times 2 = \text{Rs } 1,50,000$. Harish does not pay Rs 4,000, so Rs 1,46,000 is received.

Journal of CCL Ltd. (continued)

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Second and Final Call A/c Dr. To Share Capital A/c (Being second and final call of Rs 2 per share due)		1,50,000	 1,50,000
	Bank A/c Dr. Calls in Arrears A/c Dr. To Share Second and Final Call A/c (Being final call received except Rs 4,000 due from Harish)		1,46,000 4,000	 1,50,000

Step 6: Conclusion The entries record called-up Share Capital of Rs 7,50,000, Securities Premium of Rs 2,25,000 and Harish's Calls in Arrears of Rs 10,000. Net bank receipts are Rs 9,65,000, equal to Rs 9,75,000 issue proceeds less Rs 10,000 unpaid calls.

Quick Tip to Solve: Find the final call from the Rs 13 issue price, then separate the Rs 3 premium from allotment before crediting capital. Apply Harish's default only to the two calls.

OR

25(b). Pass necessary journal entries for the forfeiture and reissue of shares in the following cases :

(i) CC Ltd. forfeited 10,000 shares of Rs. 10 each, Rs. 8 called up, for non-payment of allotment money of Rs. 3 per share and first call of Rs. 3 per share. Out of these, 2000 shares were reissued for Rs. 7 per share, Rs. 8 paid up.

(ii) GG Ltd. forfeited 2000 shares of Rs. 10 each fully called up, issued at a premium of 10% on which only application money of Rs. 3 per share was received. Out of these, 500 shares were re-issued at Rs. 11 per share, fully paid up. [6 marks]

Solution:

Concept:

- At forfeiture, debit Share Capital with the called-up face value, credit unpaid instalments, and credit Share Forfeiture with the capital amount already received. An unpaid premium previously due is reversed by debiting Securities Premium.
- On reissue, credit Share Capital with the paid-up value. A discount on reissue is debited to Share Forfeiture and cannot exceed the forfeited amount relating to the shares reissued.
- Transfer to Capital Reserve only the forfeiture surplus on shares actually reissued. The forfeiture amount relating to shares still unreissued remains in Share Forfeiture.

Step 1: Calculate the forfeiture and reissue amounts for CC Ltd. **Working Notes: Case (i)**

Only Rs 8 per share is called up. Of this, allotment of Rs 3 and first call of Rs 3 remain unpaid, so the amount already received is $8-3-3 = \text{Rs } 2$ per share. Hence capital forfeited is $10,000 \times 8 = \text{Rs } 80,000$, and Share Forfeiture receives $10,000 \times 2 = \text{Rs } 20,000$. The 2,000 reissued shares are credited as Rs 8 paid up, even though their face value is Rs 10. Thus:

$$\begin{aligned} \text{Bank receipt} &= 2,000 \times 7 = \text{Rs } 14,000, \\ \text{Reissue discount} &= 2,000 \times (8-7) = \text{Rs } 2,000, \\ \text{Forfeiture on reissued shares} &= 2,000 \times 2 = \text{Rs } 4,000, \\ \text{Capital Reserve} &= 4,000 - 2,000 = \text{Rs } 2,000. \end{aligned}$$

Step 2: Journalise forfeiture and reissue in CC Ltd. **Journal of CC Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Capital A/c Dr.		80,000	
	To Share Allotment A/c			30,000
	To Share First Call A/c			30,000
	To Share Forfeiture A/c			20,000
	(Being 10,000 shares of Rs 10 each, Rs 8 called up, forfeited for unpaid allotment and first call of Rs 3 each)			
	Bank A/c Dr.		14,000	
	Share Forfeiture A/c Dr.		2,000	
	To Share Capital A/c			16,000
	(Being 2,000 forfeited shares reissued at Rs 7 each as Rs 8 paid up)			
	Share Forfeiture A/c Dr.		2,000	
	To Capital Reserve A/c			2,000
	(Being surplus on the 2,000 reissued shares transferred to Capital Reserve)			

The balance of Share Forfeiture is Rs 16,000, relating to $8,000$ shares not yet reissued. Their forfeiture amount is not transferred to Capital Reserve.

Step 3: Calculate the amounts for GG Ltd. **Working Notes: Case (ii)**

Premium is 10% of Rs 10, or Rs 1 per share. The shares are fully called up, so the total amount due was Rs 11 per share. Only Rs 3 application money per share was received; the unpaid balance is Rs 8, including Rs 1 premium. Using Calls in Arrears for the unpaid balance avoids inventing an allotment/call split that the question does not specify.

$$\begin{aligned}\text{Share Capital to reverse} &= 2,000 \times 10 = \text{Rs } 20,000,\\ \text{Unpaid premium to reverse} &= 2,000 \times 1 = \text{Rs } 2,000,\\ \text{Calls in Arrears} &= 2,000 \times 8 = \text{Rs } 16,000,\\ \text{Share Forfeiture credit} &= 2,000 \times 3 = \text{Rs } 6,000.\end{aligned}$$

On reissue, Bank receives $500 \times 11 = \text{Rs } 5,500$, Share Capital is credited with Rs 5,000 and Securities Premium with Rs 500. There is no reissue discount; therefore the full forfeited capital of $500 \times 3 = \text{Rs } 1,500$ on these 500 shares is transferred to Capital Reserve.

Step 4: Journalise forfeiture and reissue in GG Ltd. **Journal of GG Ltd.**

Date	Particulars	L.F.	Dr. (Rs)	Cr. (Rs)
	Share Capital A/c Dr. Securities Premium A/c Dr. To Calls in Arrears A/c To Share Forfeiture A/c (Being 2,000 fully called-up shares forfeited, only Rs 3 application per share received and unpaid premium reversed)		20,000 2,000	 16,000 6,000
	Bank A/c Dr. To Share Capital A/c To Securities Premium A/c (Being 500 forfeited shares reissued at Rs 11 per share, fully paid up)		5,500	 5,000 500
	Share Forfeiture A/c Dr. To Capital Reserve A/c (Being forfeiture surplus on 500 reissued shares transferred to Capital Reserve)		1,500	 1,500

Share Forfeiture retains $1,500 \times 3 = \text{Rs } 4,500$ for the 1,500 shares that remain unreissued. The Rs 500 premium on reissue is credited to Securities Premium, separately from Capital Reserve.

Step 5: Conclusion CC Ltd. transfers Rs 2,000 to Capital Reserve and retains Rs 16,000 in Share Forfeiture. GG Ltd. transfers Rs 1,500 to Capital Reserve, retains Rs 4,500 in Share Forfeiture and credits Rs 500 reissue premium to Securities Premium. Each journal entry has equal debit and credit totals.

Quick Tip to Solve: For CC Ltd., compare the Rs 7 reissue price with Rs 8 paid up, not Rs 10 face value. For both companies, transfer forfeiture surplus only for the shares actually reissued.

26(a). A and B were partners in a firm sharing profits and losses in the ratio of 3 : 1. On 31.03.2022, their Balance Sheet was as follows :

Balance Sheet of A and B as at 31st March, 2022

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Outstanding Expenses	3,000	Bank	40,000
Bills Payable	20,000	Stock	60,000
Sundry Creditors	1,40,000	Bills Receivable	70,000
General Reserve	80,000	Debtors 1,00,000 Less : Provision for doubtful Debts 5,000	95,000
Capitals : A 2,00,000 B 3,00,000	5,00,000	Furniture Machinery Land and Building	85,000 1,10,000 2,83,000
	7,43,000		7,43,000

On the above date, C was admitted as a new partner for 1/5 share in the profits on the following terms :

(i) C will bring Rs. 2,00,000 as her capital and Rs. 1,60,000 as her share of goodwill premium.

(ii) Stock will be appreciated by Rs. 1,500.

(iii) Debtors of Rs. 5,000 will be written off as bad debts and a provision of 10% for bad and doubtful debts will be maintained.

Prepare Revaluation Account and Partners' Capital Accounts. [6 marks]

Solution:

Concept:

- Revaluation gains and losses and accumulated reserves belong to the old partners in their old profit-sharing ratio, here $3:1$.
- Goodwill premium is credited to the sacrificing partners. As no different sacrifice is stated, A and B sacrifice in their old ratio of $3:1$.
- Calculate the new provision on debtors remaining after writing off bad debts; recognise the existing provision when finding the net revaluation effect.

Step 1: Prepare the working notes **Working Notes**

C receives $1/5$, leaving $4/5$ for A and B. Their new shares are $(4/5)(3/4) = 3/5$ and $(4/5)(1/4) = 1/5$, respectively; thus the new ratio is $3:1:1$. The sacrificing ratio is

$$\left(\frac{3}{4}-\frac{3}{5}\right):\left(\frac{1}{4}-\frac{1}{5}\right)=\frac{3}{20}:\frac{1}{20}=3:1.$$

Goodwill premium of Rs 1,60,000 is credited to A by Rs 1,20,000 and B by Rs 40,000. General Reserve of Rs 80,000 is credited to A by Rs 60,000 and B by Rs 20,000. C's capital is separately credited with Rs 2,00,000; the goodwill premium is not C's capital.

Step 2: Calculate the revaluation adjustments After the bad-debt write-off, debtors are Rs $1,00,000 - 5,000 = 95,000$. The required new provision is Rs $95,000 \times 10\% = 9,500$. Showing the old provision as a credit to Revaluation and the bad debts and new provision as debits gives a net debtor-related loss of Rs $5,000 + 9,500 - 5,000 = 9,500$. Stock appreciation reduces the total loss to Rs $9,500 - 1,500 = 8,000$. This loss is borne by A and B: Rs 6,000 and Rs 2,000 respectively. C does not share this pre-admission loss.

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

Dr.		Cr.	
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Bad Debts	5,000	By Stock	1,500
To Provision for Doubtful Debts (new)	9,500	By Provision for Doubtful Debts (old)	5,000
		By A's Capital A/c (loss)	6,000
		By B's Capital A/c (loss)	2,000
Total	14,500	Total	14,500

Revaluation Account is closed by transferring its loss to the old partners' capital accounts; no balance is carried forward.

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

Dr.							Cr.
Particulars	A Rs	B Rs	C Rs	Particulars	A Rs	B Rs	C Rs
To Revaluation A/c	6,000	2,000	–	By Balance b/d	2,00,000	3,00,000	–
To Balance c/d	3,74,000	3,58,000	2,00,000	By General Reserve	60,000	20,000	–
				By Premium for Goodwill A/c	1,20,000	40,000	–
				By Bank A/c	–	–	2,00,000
Total	3,80,000	3,60,000	2,00,000	Total	3,80,000	3,60,000	2,00,000

No withdrawal of the goodwill premium is specified, so A's and B's credits remain in their capital accounts. Each partner's debit-side total equals the corresponding credit-side total.

Step 5: Conclusion Revaluation loss is Rs 8,000. Closing capitals are A: Rs 3,74,000; B: Rs 3,58,000; and C: Rs 2,00,000.

Quick Tip to Solve: First deduct bad debts before calculating the new provision, and credit goodwill premium only to the sacrificing partners.

OR

26(b). B, P and T were partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. On 31.03.2022, their Balance Sheet was as follows :

Balance Sheet of B, P and T as at 31st March, 2022

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Creditors	1,40,000	Bank	1,44,000
General Reserve	2,00,000	Stock	66,000
Workmen's Compensation Fund	90,000	Debtors 1,50,000 Less : Provision for Doubtful Debts 20,000	1,30,000
Capitals : B 4,00,000 P 2,00,000 T 1,00,000	7,00,000	Furniture Machinery Land and Building	70,000 2,20,000 5,00,000
	11,30,000		11,30,000

On the above date, B retired from the firm on the following terms :

(i) Goodwill of the firm will be valued at Rs. 3,60,000 and B's share will be adjusted without opening goodwill account.

(ii) Furniture will be reduced to Rs. 60,000.

(iii) A claim of Rs. 1,00,000 was admitted for workmen's compensation.

(iv) B was paid Rs. 20,000 through a cheque and the balance was transferred to his loan account.

Prepare Revaluation Account and Partners' Capital Accounts. [6 marks]

Solution:

Concept:

- At retirement, accumulated reserves and revaluation profit or loss are distributed among all old partners in their old profit-sharing ratio.
- The retiring partner's goodwill share is borne by the continuing partners in their gaining ratio without raising a Goodwill Account.
- A compensation claim is first met against the Workmen's Compensation Fund; only the excess claim is charged to Revaluation Account.

Step 1: Prepare goodwill and reserve working notes **Working Notes**

The old ratio of B, P and T is $5:3:2$. As no new ratio is specified, P and T continue in their relative old ratio, $3:2$. Their gains are

$$\text{P's gain} = \frac{3}{5} - \frac{3}{10} = \frac{3}{10},$$
$$\text{T's gain} = \frac{2}{5} - \frac{2}{10} = \frac{2}{10}.$$

Thus the gaining ratio is $3:2$. B's share of goodwill is Rs $3,60,000 \times 5/10 = 1,80,000$. Debit P's Capital Account by Rs $1,80,000 \times 3/5 = 1,08,000$ and T's Capital Account by Rs $1,80,000 \times 2/5 = 72,000$; credit B's Capital Account by Rs 1,80,000. General Reserve of Rs 2,00,000 is distributed to B, P and T as Rs 1,00,000, Rs 60,000 and Rs 40,000 respectively.

Step 2: Compute and allocate the revaluation loss Furniture falls from Rs 70,000 to Rs 60,000, giving a loss of Rs 10,000. The admitted compensation claim of Rs 1,00,000 exceeds the existing fund of Rs 90,000 by Rs 10,000. Use the whole fund against the claim and charge only this excess to Revaluation Account; no part of the fund is available for distribution to partners. The claim creates a liability and is not stated to have been paid.

$$\text{Revaluation loss} = 10,000 + 10,000 = \text{Rs } 20,000.$$

B, P and T bear this loss in $5:3:2$, giving Rs 10,000, Rs 6,000 and Rs 4,000 respectively.

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

Dr.			Cr.
Particulars	Amount (Rs)	Particulars	Amount (Rs)
To Furniture	10,000	By B's Capital A/c (loss)	10,000
To Workmen's Compensation Claim (excess)	10,000	By P's Capital A/c (loss)	6,000
		By T's Capital A/c (loss)	4,000
Total	20,000	Total	20,000

The loss transfer closes this temporary account, so there is no balance carried forward.

Step 4: Settle B's amount due and prepare the capital accounts B's amount due is Rs $4,00,000 + 1,00,000 + 1,80,000 - 10,000 = 6,70,000$. After paying Rs 20,000 by cheque, transfer Rs 6,50,000 to B's Loan Account. This transfer closes B's Capital Account; it does not require an additional bank payment.

Partners' Capital Accounts

Dr.				Cr.			
Particulars	B Rs	P Rs	T Rs	Particulars	B Rs	P Rs	T Rs
To Revaluation A/c	10,000	6,000	4,000	By Balance b/d	4,00,000	2,00,000	1,00,000
To B's Capital A/c (goodwill)	–	1,08,000	72,000	By General Reserve	1,00,000	60,000	40,000
To Bank A/c	20,000	–	–	By P's Capital A/c (goodwill)	1,08,000	–	–
To B's Loan A/c	6,50,000	–	–	By T's Capital A/c (goodwill)	72,000	–	–
To Balance c/d	–	1,46,000	64,000				
Total	6,80,000	2,60,000	1,40,000	Total	6,80,000	2,60,000	1,40,000

P's closing capital is Rs $2,00,000 + 60,000 - 6,000 - 1,08,000 = 1,46,000$. T's closing capital is Rs $1,00,000 + 40,000 - 4,000 - 72,000 = 64,000$. The corresponding debit and credit totals agree for every partner.

Step 5: Conclusion Revaluation loss is Rs 20,000. B receives Rs 20,000 by cheque and Rs 6,50,000 is transferred to his loan account. Closing capitals are P: Rs 1,46,000 and T: Rs 64,000; B's Capital Account is closed.

Quick Tip to Solve: Charge only the compensation claim in excess of its fund to revaluation, then deduct the cheque payment from B's adjusted capital to obtain his loan.

Part B (20 marks)

OPTION – I
(Analysis of Financial Statements)

27(i). Which of the following is a tool of 'Analysis of Financial Statements' ? [1 mark]

(A) Statement of Profit and Loss
(B) Balance Sheet
(C) Ratio Analysis
(D) Both (a) and (b)

Correct Answer: (C) Ratio Analysis

Solution:

Concept:

- Financial statement analysis interprets accounting information to judge profitability, liquidity and financial position.
- Ratio analysis is a tool that expresses a meaningful relationship between two related financial figures.

Step 1: Identify the analytical technique Ratio analysis converts figures into relationships, such as the current ratio of current assets to current liabilities. These relationships help compare performance

across periods or firms, so ratio analysis is a tool of analysis.

Step 2: Distinguish the statements from the tool The Statement of Profit and Loss and the Balance Sheet supply the financial information to be analysed. They are financial statements themselves, rather than techniques of analysis. Therefore, neither (A) nor (B), nor their combination in (D), answers the question.

Step 3: Conclusion Ratio Analysis is the tool of analysis of financial statements. Hence, the correct option is (C).

Quick Tip to Solve: Separate the source of financial figures from the method used to interpret them: statements supply data; ratios analyse it.

OR

27(ii). If the Operating Ratio of Pathway Ltd. is 30%, its Operating Profit Ratio will be : [1 mark]

(A) 100%

(B) 30%

(C) 130%

(D) 70%

Correct Answer: (D) 70%

Solution:

Concept:

- Operating ratio expresses operating cost as a percentage of revenue from operations. Operating cost comprises cost of revenue from operations and operating expenses.
- Operating profit is the balance after deducting operating cost from revenue from operations; hence operating ratio and operating profit ratio together equal 100%.

Step 1: Use the complementary relationship Let revenue from operations be Rs 100. An operating ratio of 30% means that operating cost is Rs 30, leaving operating profit of Rs 70. Thus

$$\text{Operating profit ratio} = 100\% - 30\% = 70\%.$$

Step 2: Check the alternatives Option (A), 100%, would mean no operating cost. Option (B), 30%, merely repeats the operating ratio. Option (C), 130%, adds the cost percentage instead of subtracting it. Only option (D) represents the operating surplus.

Step 3: Conclusion The Operating Profit Ratio is 70%. Hence, the correct option is (D).

Quick Tip to Solve: When operating ratio is given, subtract it from 100%; both ratios use revenue from operations as the denominator.

28(i). Which of the following is not a Solvency Ratio ? [1 mark]

(A) Interest Coverage Ratio

(B) Return on Investment

(C) Debt to Capital Employed Ratio

(D) Total Assets to Debt Ratio

Correct Answer: (B) Return on Investment

Solution:

Concept:

- Solvency ratios assess the ability of a business to meet its long-term obligations and the security available to lenders.
- Profitability ratios measure the earning capacity of a business in relation to sales, capital or investment.

Step 1: Classify the debt-related ratios Interest Coverage Ratio measures the profit available to service interest. Debt to Capital Employed Ratio measures the proportion of capital financed through long-term debt. Total Assets to Debt Ratio measures the asset cover available for long-term debt. Accordingly, options (A), (C) and (D) are solvency ratios.

Step 2: Identify the ratio measuring returns Return on Investment relates profit before interest and tax to capital employed. Its purpose is to measure the profitability of the funds invested in the business, rather than classify its long-term debt-servicing position.

Step 3: Conclusion Return on Investment is a profitability ratio, not a solvency ratio. Hence, the correct option is (B).

Quick Tip to Solve: For a negative classification question, separate debt-servicing or security ratios from ratios that measure earnings on investment.

OR

28(ii). Which of the following are known as Efficiency Ratios ? [1 mark]

(A) Liquidity Ratios

(B) Solvency Ratios

(C) Activity Ratios

(D) Profitability Ratios

Correct Answer: (C) Activity Ratios

Solution:

Concept:

- Activity ratios measure how efficiently a business uses its assets and resources to generate revenue from operations.
- Activity ratios are also called turnover ratios or efficiency ratios; examples include inventory

turnover and trade receivables turnover.

Step 1: Connect efficiency with turnover An inventory turnover ratio shows how frequently inventory is sold and replaced. A trade receivables turnover ratio shows how quickly credit sales are converted into collections. Both evaluate the efficiency of resource utilisation and therefore belong to the activity-ratio group.

Step 2: Distinguish the other groups Liquidity ratios assess short-term payment capacity, solvency ratios assess long-term financial security, and profitability ratios assess earning capacity. Although these aspects affect business performance, none is the group conventionally called efficiency ratios.

Step 3: Conclusion Activity Ratios are known as Efficiency Ratios. Hence, the correct option is (C).

Quick Tip to Solve: Link the words efficiency, activity and turnover: all concern how effectively resources are used to generate business revenue.

29. Which of the following transaction does not result in 'Inflow or outflow of cash and cash Equivalents' ? [1 mark]

(A) Collection of cash from trade receivables

(B) Payment to trade payables

(C) Cash received on maturity of marketable securities

(D) Payment to employees

Correct Answer: (C) Cash received on maturity of marketable securities

Solution:

Concept:

- A cash flow is an inflow or outflow of cash and cash equivalents. A transfer between components of this combined total does not constitute a cash flow.
- Cash equivalents are short-term, highly liquid investments readily convertible into known cash amounts and subject to insignificant risk of changes in value.

Step 1: Examine maturity of marketable securities Here marketable securities are treated as cash equivalents. On their maturity, the securities decrease while cash increases by the corresponding amount. This is a movement between components of cash and cash equivalents; it does not change their combined total.

Step 2: Contrast the other transactions Collection from trade receivables increases cash and reduces receivables, which are outside cash equivalents. Payment to trade payables reduces cash while settling a liability. Payment to employees also reduces cash. Thus (A) creates an inflow and (B) and (D) create outflows, unlike the conversion in (C).

Step 3: Conclusion Cash received on maturity of marketable securities does not result in a cash flow in this context. Hence, the correct option is (C).

Quick Tip to Solve: Check whether both sides of a transaction are already included in cash and cash equivalents; an internal conversion is excluded from cash flows.

30. Which of the following is not included in 'Cash and Cash Equivalents' ? [1 mark]

(A) Demand deposits with banks

(B) Short-term marketable securities

(C) Cheques in hand

(D) Trade receivables

Correct Answer: (D) Trade receivables

Solution:

Concept:

- Cash includes cash on hand and demand deposits with banks. Cheques in hand represent cash held for deposit in the bank.
- Cash equivalents comprise short-term, highly liquid investments readily convertible into known amounts of cash, with insignificant risk of changes in value.

Step 1: Check the cash and investment components Demand deposits can be withdrawn on demand and form part of cash. Cheques in hand are also included in cash. Short-term marketable securities that meet the liquidity and risk conditions are cash equivalents. Therefore options (A), (B) and (C) are included.

Step 2: Distinguish a claim from available cash Trade receivables are amounts due from customers for credit sales. They remain claims to be collected and are exposed to collection risk; they are not themselves cash or qualifying short-term investments. Their subsequent collection creates a cash receipt.

Step 3: Conclusion Trade receivables are not included in Cash and Cash Equivalents. Hence, the correct option is (D).

Quick Tip to Solve: A current asset is not automatically a cash equivalent: customer debts must first be collected before they become cash.

31. Classify the following items under major heads and sub-heads (if any) in the Balance Sheet of a company as per Schedule III, Part I of the Companies Act, 2013 :

(a) Computer Software

(b) Work-in-Progress

(c) Calls in Advance [3 marks]

Solution:

Concept:

- Schedule III classifies assets as non-current or current and groups liabilities separately from shareholders' funds.
- Classification depends on the nature of the item: software is an identifiable intangible asset, unfinished production is inventory, and uncalled share money received early is a liability.

Step 1: Classify computer software Computer software provides benefits over more than one

accounting period and does not have physical substance. It is shown under the major head Non-current Assets, within Fixed Assets (the property, plant and equipment and intangible-assets grouping), under the sub-head Intangible Assets.

Step 2: Classify work-in-progress Work-in-progress represents goods whose manufacturing process is incomplete. It forms part of the normal operating cycle and is classified under Current Assets, with the sub-head Inventories. It is not the same as capital work-in-progress, which relates to construction of a fixed asset.

Step 3: Classify calls in advance and summarise Calls in advance are amounts received from shareholders before the relevant call has been made. Until the call becomes due, these amounts are not part of called-up share capital. They are shown under Current Liabilities, sub-head Other Current Liabilities.

Balance Sheet classification (extract)

Item	Major head	Sub-head
Computer Software	Non-current Assets	Fixed Assets: Intangible Assets
Work-in-Progress	Current Assets	Inventories
Calls in Advance	Current Liabilities	Other Current Liabilities

Step 4: Conclusion Software is an intangible non-current asset; work-in-progress is current inventory; and calls in advance are other current liabilities.

Quick Tip to Solve: Distinguish ordinary work-in-progress from capital work-in-progress, and keep calls in advance separate from called-up share capital.

32. 'These ratios are calculated to determine the ability of the business to service its debt in the long run.' Identify and state the significance of three such ratios. [3 marks]

Solution:

Concept:

- The ratios described are solvency ratios. They assess long-term financial stability and the ability to meet debt obligations, including interest and repayment of principal.
- Debt-based ratios evaluate the financing mix and asset security, while interest coverage evaluates the earnings available to pay interest.

Step 1: Explain the Debt-Equity Ratio

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term debt}}{\text{Shareholders' funds}}.$$

This ratio measures the relationship between borrowed long-term funds and owners' funds. It indicates the extent of reliance on long-term borrowing and the owners' cushion available to creditors. A lower ratio generally means lower financial risk and greater protection for lenders; a higher ratio indicates greater leverage and fixed obligations.

Step 2: Explain the Total Assets to Debt Ratio

$$\text{Total Assets to Debt Ratio} = \frac{\text{Total assets}}{\text{Long-term debt}}.$$

This ratio shows the asset backing available for long-term debt. A higher ratio generally indicates greater security for long-term creditors because more assets support each rupee of long-term debt. A lower ratio indicates a smaller asset cushion.

Step 3: Explain the Interest Coverage Ratio

$$\text{Interest Coverage Ratio} = \frac{\text{Profit before interest and tax}}{\text{Interest on long-term debt}}.$$

It shows how many times the interest obligation is covered by earnings available before interest and tax. A higher ratio means a larger earnings cushion for paying interest, whereas a low ratio signals difficulty in servicing debt if profits fall. The numerator is taken before interest because the ratio measures earnings available to meet that charge.

Step 4: Conclusion These are Solvency Ratios. Debt-Equity Ratio, Total Assets to Debt Ratio and Interest Coverage Ratio respectively assess financing risk, asset cover and the capacity to pay interest.

Quick Tip to Solve: For a complete solvency answer, name the ratio and link its significance to borrowing risk, creditor security or interest-payment capacity.

33(a). (i) From the following information, calculate Operating Ratio :

Revenue from Operations : Rs. 10,00,000

Cost of Revenue from Operations : Rs. 4,00,000

Selling expenses : Rs. 80,000

Administrative expenses : Rs. 1,20,000

(ii) From the following details, calculate Interest Coverage Ratio :

Net Profit before Tax : Rs. 2,00,000

10% Long term debt : Rs. 5,00,000

Tax rate 40% [4 marks]

Solution:

Concept:

- Operating ratio measures the proportion of revenue from operations absorbed by the cost of revenue from operations and operating expenses. Selling and administrative expenses are operating expenses.
- Interest coverage ratio is earnings before interest and tax (EBIT) divided by interest on long-term debt. Profit before tax has already been reduced by interest, so interest is added back to obtain EBIT.

Step 1: (i) Calculate operating expenses and total operating cost Selling expenses and administrative

expenses relate to the normal running of the business. Both are added to the cost of revenue from operations:

$$\begin{aligned}\text{Operating expenses} &= 80,000 + 1,20,000\\ &= \text{Rs } 2,00,000,\\ \text{Total operating cost} &= 4,00,000 + 2,00,000\\ &= \text{Rs } 6,00,000.\end{aligned}$$

Step 2: (i) Express operating cost as a percentage of revenue Revenue from operations is the denominator, because the ratio shows the operating cost incurred for each Rs 100 of operating revenue:

$$\begin{aligned}\text{Operating ratio} &= \frac{\text{Total operating cost}}{\text{Revenue from operations}} \times 100\\ &= \frac{6,00,000}{10,00,000} \times 100 = 60\%.\end{aligned}$$

Thus, operating cost absorbs Rs 60 out of every Rs 100 of revenue from operations.

Step 3: (ii) Calculate annual interest and EBIT The long-term debt carries interest at 10% per annum. Add this interest to the given net profit before tax:

$$\begin{aligned}\text{Interest} &= 5,00,000 \times \frac{10}{100} = \text{Rs } 50,000,\\ \text{EBIT} &= \text{Profit before tax} + \text{Interest}\\ &= 2,00,000 + 50,000 = \text{Rs } 2,50,000.\end{aligned}$$

The 40% tax rate is not needed: the starting profit is already before tax, and the required numerator is also before tax.

Step 4: (ii) Divide EBIT by interest

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest}} = \frac{2,50,000}{50,000} = 5 \text{ times}.$$

This means earnings available before interest and tax cover the annual interest obligation five times. Dividing profit before tax directly by interest would omit the required interest add-back.

Step 5: Conclusion (i) Operating Ratio $= 60\%$.

(ii) Interest Coverage Ratio $= 5$ times.

Quick Tip to Solve: Add both selling and administrative expenses for operating ratio. For interest coverage, add interest back to profit before tax; do not apply the 40% tax rate.

OR

33(b). The Current Ratio of Zenith Ltd. is 2 : 1. State giving reasons, which of the following transactions will improve, reduce or not change the current ratio :

(i) Payment to creditors Rs. 20,000

(ii) Purchased goods on credit Rs. 80,000

(iii) Cash received from debtors Rs. 15,000

(iv) Issue of equity shares Rs. 5,00,000 [4 marks]

Solution:

Concept:

- Current ratio equals current assets divided by current liabilities. With a starting ratio of $2 : 1$, current assets are twice current liabilities.
- Consider each transaction independently. When current assets exceed current liabilities, an equal reduction of both raises the ratio, while an equal addition to both lowers it towards $1 : 1$.
- An exchange between two current assets leaves total current assets unchanged. Share capital is not a current liability; a cash issue of shares increases current assets only.

Step 1: (i) Analyse payment to creditors of Rs 20,000 Payment reduces cash or bank balance (a current asset) and creditors (a current liability) by the same amount. Since the original ratio exceeds $1 : 1$, the current ratio improves. To show this algebraically, let initial current liabilities be Rs L, so current assets are Rs $2L$. After payment, provided a positive liability balance remains,

$$\frac{2L - 20,000}{L - 20,000} = 2 + \frac{20,000}{L - 20,000} > 2.$$

Thus an equal payment removes a larger proportion of liabilities than of assets.

Step 2: (ii) Analyse purchase of goods on credit of Rs 80,000 Inventory increases current assets by Rs 80,000 and the amount payable to creditors increases current liabilities by Rs 80,000. Equal additions reduce a ratio initially greater than $1 : 1$:

$$\frac{2L + 80,000}{L + 80,000} = 2 - \frac{80,000}{L + 80,000} < 2.$$

Therefore the current ratio reduces. The transaction adds assets and liabilities in a $1 : 1$ proportion, below the company's initial $2 : 1$ ratio.

Step 3: (iii) Analyse cash received from debtors of Rs 15,000 Cash increases by Rs 15,000, while trade receivables decrease by Rs 15,000. Both are current assets, so the increase and decrease cancel within current assets. Current liabilities are unaffected. Consequently, both totals used in the ratio remain unchanged, and the current ratio stays at $2 : 1$.

Step 4: (iv) Analyse issue of equity shares of Rs 5,00,000 Taking the issue as an issue for cash, bank balance increases by Rs 5,00,000. Equity share capital also increases, but it belongs to shareholders' funds and is excluded from current liabilities. Therefore,

$$\frac{2L + 5,00,000}{L} = 2 + \frac{5,00,000}{L} > 2.$$

The current ratio improves because current assets rise while current liabilities remain unchanged.

Step 5: Conclusion (i) Payment to creditors: improves.

(ii) Credit purchase of goods: reduces.

(iii) Cash collected from debtors: no change, remaining 2 : 1.

(iv) Issue of equity shares for cash: improves.

Quick Tip to Solve: Start from 2 : 1: equal subtraction improves it, equal addition reduces it. Collection from debtors merely swaps current assets; cash from shares increases only the numerator.

34. Read the following hypothetical text and answer the given questions on this basis :

Shobha started a small enterprise selling hand-knitted sweaters under 'Skill India Scheme'. As the business grew, the revenue started increasing. On 1st April 2020, she decided to form 'Shobha Ltd.' along with twelve other like-minded persons. The Balance Sheet of Shobha Ltd. as at 31st March, 2022, is given below.

From the figures given in the Balance Sheet and additional information, calculate 'Cash Flows from Investing Activities' and 'Cash Flows from Financing Activities'.

Balance Sheet of SHOBHA Ltd. as at 31st March, 2022

Particulars	Note No.	31.3.2022 (Rs.)	31.3.2021 (Rs.)
I - Equity and Liabilities :			
1. Shareholders' Funds			
(a) Equity Share Capital		8,00,000	6,00,000
(b) Reserves and Surplus	1	2,00,000	50,000
2. Non-Current Liabilities			
Long-term Borrowings	2	4,00,000	3,00,000
3. Current Liabilities			
(a) Trade Payables		40,000	45,000
(b) Bank Overdraft		1,00,000	85,000
(c) Short-term Provisions	3	30,000	20,000
Total		15,70,000	11,00,000
II - Assets :			
1. Non-Current Assets			
Fixed Assets			
(i) Tangible Assets	4	6,00,000	5,00,000
(ii) Intangible Assets	5		50,000
2. Current Assets			
(a) Inventories		5,00,000	4,00,000
(b) Trade Receivables		4,00,000	90,000
(c) Cash and Cash Equivalents		70,000	60,000
Total		15,70,000	11,00,000

Notes to Accounts :

Note No.	Particulars	31.3.2022 (Rs.)	31.3.2021 (Rs.)
1	Reserve and Surplus Surplus i.e. Balance in Statement of Profit and Loss	2,00,000	50,000
		2,00,000	50,000
2	Long-term Borrowings 10% Debentures	4,00,000	3,00,000
		4,00,000	3,00,000
3	Short-term Provisions Provision for tax	30,000	20,000
		30,000	20,000
4	Tangible Assets Machinery Less : Accumulated Depreciation	7,00,000 (1,00,000)	6,50,000 (1,50,000)
		6,00,000	5,00,000
5	Intangible Assets Goodwill	-	50,000

Additional Information :

(i) A piece of machinery costing Rs. 1,60,000 was sold at a loss of Rs. 20,000. Depreciation charged during the year amounted to Rs. 40,000.

(ii) Rs. 1,00,000, 10% debentures were issued on 31.3.2022. [6 marks]

Solution:

Concept:

- Investing activities include cash paid to acquire machinery and cash received on its disposal. Sale proceeds equal the carrying amount sold less the loss on sale.
- Financing activities include cash raised through shares and borrowings and interest paid by a non-financial enterprise. An increase in bank overdraft is treated as a financing inflow here.
- Depreciation and goodwill written off are non-cash items. They do not themselves create investing cash payments.

Step 1: Find depreciation on the machine sold **Working Notes**

The accumulated depreciation balance falls from Rs 1,50,000 to Rs 1,00,000 despite a charge of Rs 40,000 during the year. The missing amount is the accumulated depreciation removed on disposal:

$$\begin{aligned}\text{Depreciation on machine sold} &= 1,50,000 + 40,000 - 1,00,000 \\ &= \text{Rs } 90,000.\end{aligned}$$

Thus, the sold machine's carrying amount is its original cost less its accumulated depreciation:

$$1,60,000 - 90,000 = \text{Rs } 70,000.$$

The current year's depreciation must be added to the opening accumulated depreciation before calculating the amount removed on sale.

Step 2: Calculate sale proceeds and purchases of machinery The loss of Rs 20,000 is the difference between the carrying amount and the amount received. Therefore:

$$\text{Cash received on sale} = 70,000 - 20,000 = \text{Rs } 50,000.$$

Use the gross machinery values in Note 4, not its depreciated balance-sheet values, to calculate purchases:

$$\begin{aligned}\text{Purchases} &= \text{Closing cost} + \text{Cost sold} - \text{Opening cost}\\ &= 7,00,000 + 1,60,000 - 6,50,000\\ &= \text{Rs } 2,10,000.\end{aligned}$$

These are treated as cash purchases because no credit acquisition or other non-cash acquisition is specified. As a check, the closing carrying amount is Rs $5,00,000 + 2,10,000 - 70,000 - 40,000 = 6,00,000$.

Step 3: Prepare cash flows from investing activities **Shobha Ltd.**

Cash Flow Statement (Extract) for the year ended 31st March, 2022

Particulars	Amount (Rs)
A. Cash flows from investing activities	
Proceeds from sale of machinery	50,000
Purchase of machinery	(2,10,000)
Net cash used in investing activities	**(1,60,000)**

The reduction in goodwill from Rs 50,000 to nil is treated as a write-off, since no sale of goodwill is stated; it is not entered as an investing receipt. The loss on sale is also not a separate cash outflow: it has already been used to obtain the actual sale proceeds.

Step 4: Calculate the financing receipts and interest Share capital increases by Rs $8,00,000 - 6,00,000 = 2,00,000$, taken as cash proceeds from shares because no non-cash issue is stated. The additional information confirms a cash issue of debentures of Rs 1,00,000 on 31st March, 2022. Bank overdraft increases by Rs $1,00,000 - 85,000 = 15,000$, a financing inflow under the treatment used for this question.

The newly issued debentures were issued on the last day of the year and carry no interest for the elapsed year. Interest is therefore calculated only on the opening debentures:

$$\text{Interest paid} = 3,00,000 \times \frac{10}{100} = \text{Rs } 30,000.$$

No outstanding-interest balance is given, so this interest is treated as paid. For this non-financial company, interest paid is a financing outflow.

Step 5: Prepare cash flows from financing activities **Shobha Ltd.**
Cash Flow Statement (Extract) for the year ended 31st March, 2022

Particulars	Amount (Rs)
B. Cash flows from financing activities	
Proceeds from issue of equity shares	2,00,000
Proceeds from issue of 10% debentures	1,00,000
Increase in bank overdraft	15,000
Total financing inflows	**3,15,000**
Interest paid on debentures	(30,000)
Net cash from financing activities	**2,85,000**

Trade payables, inventories, trade receivables and tax provisions relate to operating activities. The increase in surplus is not itself a financing receipt. None of these amounts belongs in the two activity sections requested.

Step 6: Conclusion Net cash used in investing activities is $\boxed{\text{Rs } 1,60,000}$ (outflow). Net cash generated from financing activities is $\boxed{\text{Rs } 2,85,000}$ (inflow).

Quick Tip to Solve: First reconcile accumulated depreciation to obtain the sold asset's carrying amount. Then use gross machinery cost for purchases and the debenture issue date for interest.

OPTION II (Computerised Accounting)

27(i). Computer-related peripherals and their network is known as which of the following components of Computerised Accounting System ? [1 mark]

(A) Procedure

(B) Data

(C) Hardware

(D) Software

Correct Answer: (C) Hardware

Solution:

Concept:

- Hardware comprises the physical equipment used to input, process, store and output accounting information.
- Procedures specify actions, data are the recorded facts, and software supplies the instructions executed by the computer.

Step 1: Identify the physical component Computer peripherals, such as a keyboard, printer and storage device, are tangible parts of the system. The networking equipment connecting computers and peripherals also belongs to this physical component.

Step 2: Eliminate the other components Procedure describes the steps followed by people; data means the accounting facts being processed; software means programs. None of these denotes the physical peripherals and their network. The description therefore identifies hardware.

Step 3: Conclusion Computer-related peripherals and their network are hardware. Hence, the correct

option is (C).

Quick Tip to Solve: Classify a component by its role: physical devices indicate hardware; programs indicate software.

OR

27(ii). Which of the following functions automatically totals a column or row of values ? [1 mark]

(A) AVG

(B) TOTAL

(C) SUM

(D) ADD

Correct Answer: (C) SUM

Solution:

Concept:

- The SUM function adds numeric values supplied individually or through a cell range.
- A cell range may run vertically down a column or horizontally across a row; addition works in either direction.

Step 1: Apply the addition function To total values in cells A1 to A5, use `=SUM(A1:A5)`. To total a row from A1 to E1, use `=SUM(A1:E1)`. Each formula adds all numeric values in its specified range.

Step 2: Distinguish the alternatives An average is the total divided by the count, so AVG does not describe the required total. TOTAL and ADD are not the standard spreadsheet function names used here for adding a range. SUM directly performs the operation stated in the question.

Step 3: Conclusion The SUM function totals a column or row of values. Hence, the correct option is (C).

Quick Tip to Solve: For a range total, write SUM and place the first and last cell references inside parentheses, separated by a colon.

28. Which of the following menu is used to create a ledger in Tally ? [1 mark]

(A) Gateway of Tally > Master > Accounting information > Ledger > Alter

(B) Gateway of Tally > Master > Accounting information > Ledger > Create

(C) Gateway of Tally > Master > Accounting information > Ledger > Display

(D) Gateway of Tally > Create > Master > Edit > Accounting information > Ledger

Correct Answer: (B) Gateway of Tally > Master > Accounting information > Ledger > Create

Solution:

Concept:

- A ledger is an account master in which transactions relating to one account are grouped.
- The Create command makes a new master; Alter changes an existing master, and Display views an existing master.

Step 1: Follow the printed master-account path In the menu arrangement specified in this question, start at Gateway of Tally, enter Master, choose Accounting information, and then select Ledger. Creating a new ledger requires the Create command at the end of this path.

Step 2: Check each competing operation Option (A) ends with Alter and would edit an existing ledger. Option (C) ends with Display and would only show a ledger. Option (D) places Create before Master and includes Edit in an incorrect order. Only option (B) ends the prescribed ledger path with Create.

Step 3: Conclusion The path is Gateway of Tally > Master > Accounting information > Ledger > Create. Hence, the correct option is (B).

Quick Tip to Solve: First decide whether the task is to add, change or view a ledger; select Create, Alter or Display accordingly.

29. A sequential code refers to code applied to some documents where : [1 mark]

(A) account heads are assigned to documents.

(B) special names are given to documents.

(C) documents are arranged in special sequence.

(D) numbers and letters are assigned in consecutive order.

Correct Answer: (D) numbers and letters are assigned in consecutive order.

Solution:

Concept:

- A code identifies a document or record using assigned symbols such as numbers or letters.
- Under sequential coding, successive documents receive codes in consecutive order, for example 001, 002 and 003.

Step 1: Identify what makes a code sequential The defining feature is the consecutive assignment of identifiers. For example, invoices entered one after another may be numbered 101, 102 and 103. The code itself follows the sequence and helps identify each document.

Step 2: Separate assignment from arrangement Assigning account heads, as in (A), is classification, and giving special names, as in (B), is naming. Merely arranging documents in a special sequence, as in (C), does not state that their codes are consecutive. Option (D) explicitly describes consecutive assignment of numbers and letters.

Step 3: Conclusion In sequential coding, numbers and letters are assigned in consecutive order. Hence, the correct option is (D).

Quick Tip to Solve: Look for consecutive identifiers in the option; sorting documents alone does not define sequential coding.

30(i). Entries required to make Trading account and Profit and Loss account are known as : [1 mark]

(A) Opening entries

(B) Adjustment entries

(C) Closing entries

(D) (a) and (b) both

Correct Answer: (C) Closing entries

Solution:

Concept:

- Closing entries transfer the balances of nominal accounts to Trading Account and Profit and Loss Account at the end of an accounting period.
- Opening entries bring forward beginning balances, whereas adjustment entries recognise outstanding, prepaid, accrued and other period-end items.

Step 1: Identify the purpose of the entries To prepare Trading Account, relevant purchase, sales and direct-expense balances are transferred to it. Indirect expenses and incomes are transferred to Profit and Loss Account. These transfers close the relevant nominal accounts for the period.

Step 2: Compare the choices The description concerns closing nominal accounts into final accounts, so it matches closing entries. Opening entries start the books for a new period. Adjustment entries correct or complete amounts before final accounts are prepared, but are not the name of the transfer entries described. Consequently, the combination in (D) is also unsuitable.

Step 3: Conclusion The required transfers are closing entries. Hence, the correct option is (C).

Quick Tip to Solve: Link closing entries with transferring nominal-account balances into Trading Account and Profit and Loss Account.

OR

30(ii). A cell reference that holds either row or column constant when the formula or function is copied to another location is known as : [1 mark]

(A) Range

(B) Absolute cell reference

(C) Relative cell reference

(D) Mixed cell reference

Correct Answer: (D) Mixed cell reference

Solution:

Concept:

- A cell reference identifies a cell by its column letter and row number. Copying a formula can change its relative components.
- A dollar sign fixes the component immediately after it: `$A1` fixes column A, while `A$1` fixes row 1.

Step 1: Identify which component is fixed The question fixes either the row or the column, leaving the other component free to change. Such a reference combines one absolute component with one relative component and is therefore called a mixed cell reference. For example, copying `A$1` one column right changes it to `B$1`, but the row remains 1.

Step 2: Distinguish the other choices A range is a collection of cells. An absolute reference, such as `$A$1`, fixes both row and column. A relative reference, such as `A1`, allows both to adjust when copied. None of these describes exactly one fixed component.

Step 3: Conclusion The reference is a mixed cell reference. Hence, the correct option is (D).

Quick Tip to Solve: Count the dollar signs: one means mixed, two mean absolute, and none means relative.

31. Explain the two main groups in which 'Group of Accounts' are classified in accounting software. [3 marks]

Solution:

Concept:

- Accounting software arranges ledger accounts into a hierarchy of groups so that accounts of similar nature can be combined in financial reports.
- The two levels of grouping are primary groups and sub-groups. A ledger is placed in the suitable group according to the nature of the account.

Step 1: Explain primary groups Primary groups are the main or top-level groups of accounts. They provide the broad classification required for preparing the Balance Sheet and the Profit and Loss Account. Examples include Capital Account, Current Assets, Current Liabilities, Sales Accounts and Purchase Accounts. A primary group does not fall under another account group. For instance, Current Assets collects assets expected to be realised or used in the normal operating cycle.

Step 2: Explain sub-groups Sub-groups are more specific classifications placed under a primary

group, or under another appropriate sub-group. They collect related ledger accounts and provide a detailed break-up of the parent group's balance. For example, Bank Accounts and Sundry Debtors are sub-groups under Current Assets. The individual bank ledgers are placed under Bank Accounts, and the individual credit customers' ledgers under Sundry Debtors. Their balances are combined into their sub-group totals and ultimately into the Current Assets total. This organisation permits both a summary report and detailed examination of its components.

Step 3: Conclusion Group of Accounts are classified into primary groups, which provide broad reporting heads, and sub-groups, which provide detailed classifications within those heads.

Quick Tip to Solve: Remember the hierarchy with an example: Current Assets, then Sundry Debtors, then an individual customer's ledger.

32. Explain three features of Computerised Accounting System. [3 marks]

Solution:

Concept:

- A Computerised Accounting System uses accounting software and a database to record, process, store and report financial transactions.
- Its features arise from automatic processing of recorded data according to programmed accounting rules. Proper input and controls remain necessary.

Step 1: Explain speed A computer processes a large volume of accounting data in a short time. Once a transaction is entered, its effects can be posted to the relevant ledgers and used in preparing the trial balance and financial reports automatically. Repeated manual calculations and repeated writing of the same information are reduced. For example, a credit sale can update both the sales account and the customer's balance promptly.

Step 2: Explain accuracy The system performs arithmetic and posting according to the instructions in the software, reducing calculation and copying errors associated with manual work. Totals, balances and reports can be computed consistently from the stored transactions. However, accuracy depends on correct input and correct configuration: entering the wrong amount or selecting the wrong ledger can still produce an incorrect accounting result.

Step 3: Explain reliability A computer performs repetitive work consistently without tiredness or loss of attention. When the same valid data and instructions are used, it produces the same result. This makes regular processing of numerous transactions dependable and supports timely preparation of accounting information. Appropriate access controls and backups help preserve the records on which the reports depend.

Step 4: Conclusion Three features of a Computerised Accounting System are speed, accuracy and reliability, supported by correct data entry and properly configured software.

Quick Tip to Solve: For each feature, connect its name to an accounting task: fast posting, correct calculations and consistent repeated processing.

33(a). What are the reasons if 'Correct # N/A Error' appears on the computer screen while working on a spreadsheet ? How can it be corrected ? [4 marks]

Solution:

Concept:

- The spreadsheet error `#N/A` means that a value needed by a formula or function is not available. It commonly occurs in lookup functions.
- Correction requires checking the source data, lookup value and function arguments. Merely hiding an error does not correct missing or mismatched data.

Step 1: Check whether the required value exists A lookup formula such as VLOOKUP, HLOOKUP or MATCH may return `#N/A` when it cannot find the requested value. For example, an exact-match lookup for a customer's code fails if the code is absent from the selected lookup column. Verify the code, correct spelling or typing errors and include the required record in the lookup table. Also check that the formula searches the intended range and the correct lookup row or column.

Step 2: Correct mismatched data and lookup settings A value that appears identical may be stored differently, such as a number in one cell and text in another, or text with extra spaces. Standardise the data types and remove unwanted spaces. Check the matching argument of the function: use exact matching when an exact code is required. When an approximate lookup requires sorted data, arrange the lookup data in the required order and check that the requested value lies within the appropriate range.

Step 3: Supply missing data and required arguments The error can also arise when necessary information is unavailable, a referenced cell already contains `#N/A`, or a function is used with a required argument missing or inappropriate. Enter the missing value, correct the error in the source cell and supply the proper arguments according to the function's syntax. Check each referenced cell rather than changing only the final result cell.

Step 4: Recalculate and verify the result After correcting the data or formula, recalculate and verify that the returned value belongs to the intended record. If absence of a match is expected, an error-handling function such as IFNA may display a suitable message, but it should not replace correction of an actual mistake in the data or formula.

Step 5: Conclusion `#N/A` indicates an unavailable required value. Correct it by supplying missing information, fixing lookup mismatches and ranges, and checking the function's arguments and referenced cells.

Quick Tip to Solve: Trace a `#N/A` lookup in this order: searched value, data type and spaces, lookup range, match setting, then source-cell errors.

OR

33(b). State the steps to be taken in preparation of a chart. [4 marks]

Solution:

Concept:

- A chart presents worksheet data graphically, making comparisons, trends and relationships easier to understand.
- A chart uses a source data range, category labels and one or more data series. Its type, titles, axes and legend should suit the information being presented.

Step 1: Arrange and select the data Enter the data in a worksheet in an orderly set of rows and columns. Give suitable headings to the categories and numerical series, and check the figures. Select the cell range containing the values together with the relevant row and column headings, so that the chart can identify both its categories and its series correctly.

Step 2: Choose the chart type Use the Insert Chart command or Chart Wizard. Select an appropriate chart type and subtype: for example, a column chart for comparison, a line chart for changes over time, or a pie chart for parts of a whole. Preview the selected type to check that it presents the intended comparison clearly.

Step 3: Specify the source and chart options Confirm the selected data range and specify whether the data series are arranged in rows or columns. Check the category labels and series names. Enter a meaningful chart title and, where applicable, axis titles. Set the legend, gridlines and data labels as needed, ensuring that these identify the values without making the chart crowded.

Step 4: Choose the location and finish Specify whether the chart is to appear as an object in the existing worksheet or on a separate chart sheet, and finish the chart creation process. Adjust its size, position and formatting. Finally, compare the plotted data and labels with the worksheet and save the workbook.

Step 5: Conclusion The sequence is: arrange and select the data, choose a chart type, confirm the data series and chart options, and select the chart location before completing and checking the chart.

Quick Tip to Solve: Include the headings when selecting the source range; then check whether rows or columns should form the series before formatting the chart.

34. Name and explain the financial function which will be used to know the returns in today's currency value of a series of future payments assuming constant payments and rate of interest. [6 marks]

Solution:

Concept:

- The time value of money means that a future receipt must be discounted to express its equivalent value today. A rupee available now can earn interest before a future date.
- The PV (Present Value) financial function calculates the present value of an investment from a constant interest rate and equal periodic payments, with an optional future lump-sum value.

Step 1: Identify the function and its syntax The required spreadsheet function is PV. It discounts a series of constant future payments to obtain their equivalent amount in today's currency. Its syntax is

$$\texttt{=PV(rate, nper, pmt, [fv], [type])}.$$

Square brackets indicate optional arguments; the brackets themselves are not entered in the spreadsheet formula. The function can be used, for example, to value an annuity or determine the current value of a series of loan payments.

Step 2: Explain the required arguments **rate** is the interest or discount rate for one payment period. **nper** is the total number of payment periods. **pmt** is the equal payment made or received in each period and remains constant throughout the series. A payment normally includes principal and interest, but excludes fees and taxes.

The periods must be consistent. For monthly payments over five years at a nominal annual rate of 12%, use $\texttt{rate} = 12\%/12$ and $\texttt{nper} = 5 \times 12$, rather than combining an annual rate with a monthly number of payments.

Step 3: Explain the optional arguments **fv** is the future value or balance remaining after the final payment; it defaults to zero when omitted. **type** specifies when payments occur: 0 means the end of each period and 1 means the beginning. If omitted, type defaults to 0. Payments at the beginning are discounted for one period less, so their present value is greater than that of otherwise identical end-of-period payments at a positive rate.

Step 4: Apply the cash-flow sign convention Money paid out is entered as negative and money received as positive. Accordingly, the present value returned has the opposite cash-flow direction to the future payments being valued. To display a positive current value for a stated payment stream, enter the periodic payment with a negative sign; retain one consistent viewpoint throughout the calculation.

For illustration, the positive present value of Rs 1,000 received at the end of each of two years, discounted at 10% annually, is

$$P = \frac{1,000}{1.10} + \frac{1,000}{(1.10)^2}$$
$$\approx \text{Rs } 1,735.54.$$

With receipts entered as positive, `=PV(10%,2,1000,0,0)` returns approximately $-1,735.54$, representing the equivalent investment paid today. Entering `pmt` as -1000 instead returns the positive valuation of approximately Rs 1,735.54.

Step 5: Conclusion The function is **PV (Present Value)**. It expresses a constant series of future payments in today's currency using the periodic interest rate, number of periods, payment amount, and any specified future balance and payment timing.

Quick Tip to Solve: Before entering PV, match the interest-rate period to the payment period and check type: 0 for end-of-period payments and 1 for beginning-of-period payments.