Sub – Financial Management & Accountancy
Topic – Accounting Ratios, Leverages, Fire Insurance Claims (a) Loss of Profit (b) Loss of stock, Piecemeal Distribution, Amalgamation, Conversion
Test Code – M4
Branch: Multiple Date:10.12.2017
(50 Marks)

Note: All questions are compulsory.

Question 1 (8 Marks)

Working Notes:

(i) Cost of Goods Sold =Sales - Gross Profit (28% of Sales)

=Rs.50,00,000 – Rs.14,00,000

=Rs.36,00,000 (1/2 mark)

(ii)Closing Stock =Cost of Goods Sold/Stock Turnover

=Rs.36,00,000/6 =Rs.6,00,000(1 /2mark)

(iii) Fixed Assets =Cost of Goods Sold/Fixed Assets Turnover

=Rs.36,00,000/1.5 =Rs.24,00,000(1/2 mark)

(iv) Current Assets :Current Ratio

=1.5 and Liquid Ratio =1

Stock =1.5 – 1=0.5

Current Assets =Amount of Stock x 1.5/0.5

=Rs.6,00,000 x 1.5/0.5 =Rs.18,00,000(1/2 mark)

(v) Liquid Assets (Debtors and Cash & Cash equivalents)

=Current Assets –Stock

=Rs.18,00,000-Rs.6,00,000

=Rs.12,00,000(1/2 mark)

(vi) Debtors =Sales x Debtors Collection Period(days)/360days

=Rs.50,000 x $\frac{45}{360}$ =Rs.6,25,000(1/2 mark)

(vii) Cash & Cash equivalents

=Liquid Assets –Debtors

=Rs.12,00,000-Rs.6,25,000=Rs.5,75,000(1/2 mark)

(viii)Net worth = Fixed Assets / 1.2

=Rs.24,00,000/1.2=Rs.20,00,000(1/2 mark)

(ix) Reserves and Surplus

Reserves & Surplus and Share Capital =0.6+1=1.6

Reserves and Surplus =Rs.20,00,000 x 0.6/1.6=Rs.7,50,000(1/2 mark)

(x)Share Capital =Net worth –Reserves and Surplus

=Rs.20,00,000 – Rs.7,50,000

=Rs.12,50,000(1 /2mark)

(xi)Current Liabilities =Current Assets /Current Ratio

=Rs.18,00,000/1.5 =Rs. 12,00,000(1/2 mark)

(xii)Long term Debts

Capital Gearing Ratio =Long term Debts /Equity Shareholders 'Fund(Net worth)

Or, Long term Debts =Rs.20,00,000 x 0.5= Rs.10,00,000(1/2 mark)

Balance Sheet as at 31st March ,2016(2 marks)

Liabilities	Amount (Rs).	Assets		Amount(Rs.)
Equity Share Capital	12,50,000	Fixed Assets		24,00,000
Reserves and Surplus	7,50,000	Current Assets		
Long term Debts	10,00,000	Stock	6,00,000	
Current Liabilities	12,00,000	Debtors	6,25,000	
		Cash & Cash eq.	5,75,000	18,00,000
	42,00,000			42,00,000

Question 2 (6 Marks)

Working:

(i) Financial Leverage : $= \frac{EBIT}{EBIT-Interest}$ or, $2 = \frac{EBIT}{EBIT-5,000}$

Or, EBIT = Rs. 10,000 (1/2 mark)

(ii) Operating Leverage: $= \frac{Contribution}{EBIT}$ or, $3 = \frac{Contribution}{Rs.10,000}$

Or, Contribution = Rs. 30,000(1/2 mark)

(iii)Sales $= \frac{Contribution}{P/V\ Ratio} = \frac{Rs.30,000}{25\%}$ =Rs.1,20,000(1/2 mark)

(iv)Fixed Cost = Contribution-Fixed cost=EBIT

=Rs.30,000-Fixed cost =Rs.10,000

Or Fixed cost =Rs.20,000(1/2 mark)

Income Statement for the year ended 31st December 2016 (4 marks)

Particulars	Amount (Rs.)

Sales	1,20,000
Less :Variable Cost (75%of Rs.1,20,000)	(90,000)
Contribution	30,000
Less: Fixed Cost(Contribution - EBIT)	(20,000)
Earnings Before Interest and Tax (EBIT)	10,000
Less: Interest	(5,000)
Earnings Before Tax(EBT	5,000
Less Income Tax@30%	(1,500)
Earnings after Tax (EAT or PAT)	3,500

Question 3 (10Marks)

M/s DEF & CO.
Memorandum Trading A/c
(2 marks)
(1.4.16 to 13.9.16)

Particulars	*( )*	*Particulars*	*( )*
To Opening stock (Refer W.N.)	9,60,000	By Sales	45,98,200
To Purchases	35,49,900	By goods with customer	18,750
To Gross profit (25% of sales)	11,49,550	By Closing stock (bal. fig.)	10,42,500
	56,59,450		56,59,450

Computation of insurance claims(3 marks)

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Stock on the date of fire (i.e. on 13.09.2016)		10,42,500
Less: Stock salvaged	40,000	
Agreed value of damaged stock	20,000	(60,000)
Loss of stock		9,82,500

Claim subject to average clause:

$$\text{Insurance claim} = \frac{\text{Loss of stock}}{\text{Value of stock on the date of fire}} \text{ Amount of policy}$$

= 9,00,000/10,42,500 9,82,500 = ` 8,48,201

Working Notes:

1. Calculation of original cost of the stock as on 31st March, 2016 (1 mark)
   Stock as on 31st March, 2016 was valued at 10% lower than cost.

   Hence, original cost of the stock would be ` 9,60,000 (8,64,000/90 *100)

2. Purchases for the period of 1.4.16 to 13.9.16 (2 marks)

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Purchases	35,29,900
Add: purchases where goods have been received in godown although	
purchase invoice had not been received	60,000
Less: Purchase of machinery included in purchases	40,000
	35,49,900

3. Sales for the period of 1.4.16 to 13.9.16(1 mark)

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Sales	46,93,200
Less: goods not been dispatched	70,000
Less: goods sent on approval basis but not yet confirmed	25,000
	45,98,200

4. Goods with customer on 13.9.16 Since no approval for sale has been received for the goods for ` 25,000 These should be valued at cost i.e. 25,000 – (25,000 x 25/100) = 18,750(1 mark)

Question 4 (6 marks) (2 marks for each point)

(a) To get ₹25,00,000 after 15 years from now, Mr. X needs to deposit an amount at the end of each year, which gets accumulated @9% p.a. for 15 years to become an amount to ₹25,00,000. This can be calculated as follows:

Future Value = Annual Payment × $(FVIFA_{n,i})$ or Annual Payment × $\left(\frac{(1+i)^n - 1}{i}\right)$

Future Value = ₹25,00,000

Interest (i) = 9% p.a.

Period (n) = 15 years

₹ 25,00,000 = A $(FVIFA_{15, 0.09})$

Or, A = $\frac{₹25,00,000}{29.361}$ = ₹85,146.96 p.a.

(b) To get ₹25,00,000 after 15 years from now, Mr. X needs to deposit a lump sum payment to the fund which gets accumulated @9% p.a. for 15 years to become an amount to ₹25,00,000. This can be calculated as follows:

Future Value = Amount × $(FVIF_{15, 0.09})$ or Amount × $(1+ 0.09)^{15}$

Or, Amount = $\frac{₹25,00,000}{3.642}$ = ₹ 6,86,436.02

(c) To get ₹ 25,00,000 after 15 years from now, Mr. X needs to deposit an amount at the beginning of each year which gets accumulated @9% p.a. for 15 years to become an amount to ₹25,00,000. This can be calculated as follows:

Future Value = Annual Payment × $(FVIFA_{n,i})$ × (1+i)

₹ 25,00,000 = A $(FVIFA_{15, 0.09})$ × 1.09

₹ 25,00,000 = A (29.361 × 1.09)

Or, A = $\frac{₹25,00,000}{32.003}$ = ₹ 78,117.68 p.a.

Question 5 (8 marks)

Cash Flow Statement

As on 31st March, 2015

	Amount(')	Amount(')
A. Cash Flow from Operating Activities (3 marks)		
Profit and Loss A/c(Closing)		
Less: Profit and Loss A/c(Opening)		
Add: Transfer to General Reserve	6,75,000	
Provision for Tax	4,50,000	
Proposed Dividend	9,10,000	20,35,000
Profit before Tax		24,10,000
Adjustment for Depreciation		
Land and Building (on building)	6,80,000	
Plant and Machinery	15,02,400	21,82,400
Loss on Sale of Plant and Machinery		1,75,000
Goodwill written off		2,25,000
Interest 13% Debentures		5,65,500
Premium on Redemption		1,45,000
Operating Profit before Working Capital Changes		57,02,900
Adjustment Working Capital Changes		
Decrease in Stock	5,50,000	
Increase in Debtors	(11,75,000)	
Increase in Current Liabilities	2,50,000	(3,75,000)
Cash generated from Operating		53,27,900
Income tax paid		(225,000)
Net Cash Inflow from Operating Activities (a)		51,02,900
B. Cash flow from Investing Activities (1mark)		
Sale of Investment		4,50,000
Sale of Plant and Machinery		6,25,000
Purchase of Plant and Machinery		(55,85,400)
Net Cash Inflow from Operating Activities (b)		(45,10,400)
C. Cash flow from Financing Activities(1 ½ marks)		
Issue of Equity Shares		27,50,000
Redemption of Debentures		(14,50,000)
Redemption of Debentures at premium		(1,45,000)
Dividend Paid		(7,50,000)
Interest paid to Debentures holders		(5,65,500)
Net Cash Outflow from Financing Activities (c)		(1,60,500)
Net increase in Cash and Cash Equivalent during the year (a+b+c)		4,32,000
Cash and Cash Equivalent at the beginning of the year		14,93,000
Cash and Cash Equivalent at the end of the year		19,25,000

Working Notes:

1. Provision for the Tax Account (1/2 mark)

To Bank(paid)	2,25,000	By Balance b/d	22,50,000
To Balance c/d	24,75,000	By Profit and Loss A/c (Provision)	4,50,000
	27,00,000		27,00,000

2. Investment Account (1/2 mark)

To Balance b/d	25,00,000	By Bank A/c (bal Figure sale)	4,50,000
To General Reserve A/c (Profit on Sale)	75,000	By Balance c/d	21,25,000
	25,75,000		25,75,000

3. Plant and Machinery Account (1/2 mark)

To Balance b/d	75,12,000	By Bank (Sale)	6,25,000
To Bank A/c (Purchase –Bal. figure)	55,85,400	By Profit and Loss A/c (Loss on sale)	1,75,000
		By Profit and Loss A/c (Depreciation)	15,02,400
		By Balance c/d	1,07,95,000
	1,30,97,400		1,30,97,400

4. Proposed Dividend Account (1/2 mark)

To Bank(paid)	7,50,000	By Balance b/d	7,50,000
To Balance c/d	9,10,000	By Profit and Loss A/c	9,10,000
	16,60,000		16,60,000

5. General Reserve Account (1/2mark)

		By Balance b/d	42,50,000
		By Profit & Loss (transfer from)	6,75,000
To Balance c/d	50,00,000	By Investment (Gain on Sale)	75,000
	50,00,000		50,00,000

Question 6 (12 Marks)

1. Gross profit ratio (2 mark)

Net profit in year 2011	120,000
Insured standing charges	43,990
Gross profit	163,990

Ratio of gross profit = 1,63,990 / 8,19,950 = 20%

2. Calculation of Short sales (3 marks)

Indemnity period: 16.9.2012 to 15.12.12

Standard sales to be calculated on basis of corresponding period of year 2011

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Sales for period 16.9.2011 to 30.9.11	34,000
Sales for period 1.10.2011 to 15.12.2011 (Note 1)	1,30,000
Sales for period 16.9.2011 to 15.12.2011	1,64,000
Add: upward trend in sales (15%) (Note 2)	24,600
Standard Sales (adjusted)	1,88,600
Actual sales of disorganized period	
Calculation of sales from 16.9.12 to 15.12.12	
Sales for period 16.9.12 to 30.9.12	Nil
Sales for 1.10.12 to 15.12.12 (` 1,48,000 – ` 20,000)	1,28,000
Actual Sales	1,28,000
Short Sales (` 1,88,600 - ` 1,28,000)	60,600

3. Loss of gross profit(1 mark)

Short sales x gross profit ratio = 60,600 x 20% 12,120

4. Application of average clause(2 mark)

$$\text{Net claim} = \text{Gross claim} \times \frac{\text{policy value}}{\text{gross profit on annual turnover}}$$

$$= 12{,}120 \times \frac{1{,}00{,}000}{1{,}79{,}860 \text{ (Note 3)}}$$

Amount of claim = 6,738.57 (approx.) i.e. `. 6,739 (round off)

Working Notes:

1. Sales for period 1.10.11 to 15.12.11 (1 mark)

Sales for 1.10.11 to 31.12.11 (given)	1,90,000
Sales for 16.12.11 to 31.12.11 (given)	60,000
Sales for period 1.10.11 to 15.12.11	1,30,000

2. Calculation of upward trend in sales (2 marks)

Total sales in year 2009	=	6,20,000
Increase in sales in year 2010 as compared to 2009	=	93,000

$$\% \text{ increase} = \frac{93{,}000\ (7{,}13{,}000 - 6{,}20{,}000)}{6{,}20{,}000} = 15\%$$

Increase in sales in year 2011 as compared to year 2010

$$\% \text{ increase} = \frac{1{,}06{,}950\ (8{,}19{,}950 - 7{,}13{,}000)}{7{,}13{,}000} = 15\%$$

Thus annual percentage increase trend is of 15%.

3. Gross profit on annual turnover (1 mark)

Sales from 16.9.11 to 30.9.11	34,000
1.10.11 to 31.12.11	1,90,000
1.1.12 to 31.3.12	1,62,000
1.4.12 to 30.6.12	2,21,000
1.7.2012 to 15.9.2012 (1,75,000 – Nil)	1,75,000
Sales for 12 months just before date of fire	7,82,000
Add: 15% upward trend	1,17,300
Adjusted sales of 12 months just before the date of fire	8,99,300
Gross profit on adjusted annual sales @ 20%	1,79,860

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