

BATCH : LI –14

DATE: 11.09.2016

MAXIMUM MARKS: 60

TIMING: 2 Hours

**ANSWER SHEET****COST ACCOUNTING & FINANCIAL MANAGEMENT****Question - 1 (4 Marks)**

PV ratio of a business is 30%. BES is 40% of the capacity. Capital turnover is 2.5 and profit is 15% on capital employed. At what level (% of the capacity) the business is operating? (Capital Turnover = Sales/C.E.)

**Solution**

Let sales = ₹ 100

Contribution = 30% of sales = ₹ 30

Capital Turnover Ratio =  $\frac{\text{Turnover (sales)}}{\text{Capital employed}}$

$$2.5 = \frac{₹ 100}{\text{Capital employed}}$$

$$\therefore \text{Capital Employed} = \frac{₹ 100}{2.5} = ₹ 40$$

We have

$\therefore$  Profit = 15% of capital employed

$$= \frac{15}{100} \times ₹ 40 = ₹ 6$$

Now,

Contribution – Fixed Cost = Profit

₹ 30 – Fixed cost = ₹ 6

$\therefore$  Fixed cost = ₹ 30 – ₹ 6 = ₹ 24

Break-even ratio =  $\frac{\text{Fixed cost}}{\text{P.V. ratio}}$

40% of capacity =  $\frac{24}{30\%}$

$\therefore$  Capacity =  $\frac{24 \times 100 \times 100}{30 \times 40} = ₹ 200$

Hence, it indicates that we are operating at 50% of capacity.

**Question-2 (4 Marks)**

Write notes on Escalation Clause.

**Solution:**

Escalation Clause: This clause is usually provided in the contracts as a safeguard against any likely changes in the price or utilization of material and labour. If during the period of execution of a contract, the prices of materials or labour rise beyond a certain limit, the contract price will be increased by an agreed amount. Inclusion of such a term in a contract deed is known as an 'escalation clause'.

An escalation clause usually relates to change in price of inputs, it may also be extended to increased consumption or utilization of quantities of materials, labour etc (where it is beyond the control of the contractor). In such a situation the contractor has to satisfy the contractee that the increased utilization is not due to his inefficiency.

**Question 3: ( 8 Marks )**

EPS is a Public School having 25 buses each plying in different directions for the transport of its school students. In view of large number of students availing of the bus service, the buses work two shifts daily both in the morning and in the afternoon. The buses are garaged in the school. The workload of the students has been so arranged that in the morning, the first trip picks up senior students and the second trip plying an hour later picks up junior students. Similarly, in the afternoon, the first trip takes the junior students and an hour later the second trip takes the senior students home.

The distance travelled by each bus, one way is 16 km. The school works 24 days in a month and remains closed for vacation in May and June. The bus fee, however, is payable by the students for all the 12 months in a year.

The details of expenses for the year 2013-2014 are as under:

Driver's salary – payable for all the 12 in months.	Rs. 5,000 per month per driver.
Cleaner's salary payable for all the 12 months (one cleaner has been employed for every five buses).	Rs. 3,000 per month per cleaner
Licence Fees, Taxes etc.	Rs. 2,300 per bus per annum
Insurance Premium	Rs. 15,600 per bus per annum
Repairs and Maintenance	Rs. 16,400 per bus per annum
Purchase price of the bus	Rs. 16,50,000 each
Life of the bus	16 years
Scrap value	Rs. 1,50,000
Diesel Cost	Rs. 18.50 per litre

Each bus gives an average of 10 km. per litre of diesel. The seating capacity of each bus is 60 students. The seating capacity is fully occupied during the whole year.

The school follows differential bus fees based on distance traveled as under:

<b>Students picked up and dropped within the range of distance from the school</b>	<b>Bus fee</b>	<b>Percentage of students availing this facility</b>
4 km.	25% of Full	15%
8 km.	50% of Full	30%
16 km.	Full	55%

Ignore interest. Since the bus fees has to be based on average cost, you are required to

- (i) Prepare a statement showing the expenses of operating a single bus and the fleet of 25 buses for a year.
- (ii) Work out average cost per student per month in respect of:
  - (a) Students coming from a distance of upto 4 km. from the school.
  - (b) Students coming from a distance of upto 8 km. from the school; and
  - (c) Students coming from a distance of upto 16 km. from the school.

**Solution:**

**(a)(i)**

**EPS Public School**  
**Statement showing the expenses of operating a single bus and the fleet of 25 buses for a year**

<b>Particulars</b>	<b>Per bus per annum (Rs.)</b>	<b>Fleet of 25 buses per annum (Rs.)</b>
Running costs : (A)		
Diesel (Refer to working note 1)	56,832	14,20,800
Repairs & maintenance costs: (B)	16,400	4,10,000
Fixed charges:		
Driver's salary (Rs. 5,000 × 12 months)	60,000	15,00,000
Cleaners salary (Rs.3,000 × $\frac{1}{5}^{\text{th}}$ × 12 months)	7,200	1,80,000
Licence fee, taxes etc.	2,300	57,500
Insurance	15,600	3,90,000
Depreciation	93,750	23,43,750
Total fixed charges: (C)	1,78,850	44,71,250
Total expenses: (A+B+C)	2,52,082	63,02,050

**( 2 Marks )**

(ii) Average cost per student per month in respect of students coming from a distance of:

(a) 4 km. from the school {Rs. 2,52,082 / (354 students × 12 months)} (Refer to Working Note 2)	Rs. 59.34
(b) 8 km. from the school (Rs. 59.34 × 2)	Rs. 118.68
(c) 16 km. from the school (Rs. 59.34 × 4)	Rs. 237.36

**( 2 Marks )**

**Working Notes:**

**1. Calculation of diesel cost per bus:**

No. of trips made by a bus each day	4
Distance travelled in one trip both ways (16 km. × 2 trips)	32 km.
Distance traveled per day by a bus (32 km. × 4 shifts)	128 km.
Distance traveled during a month (128 km. × 24 days)	3,072 km.
Distance traveled per year (3,072 km. × 10 months)	30,720 km.
No. of litres of diesel required per bus per year (30,720 km. ÷ 10 km.)	3,072 litres
Cost of diesel per bus per year (3,072 litres × Rs. 18.50)	Rs. 56,832

**( 2 Marks )**

**2. Calculation of number of students per bus:**

Bus capacity of 2 trips (60 students × 2 trips)	120 students
$\frac{1}{4}^{\text{th}}$ fare students (15% × 120 students)	18 students
$\frac{1}{2}$ fare 30% students (equivalent to $\frac{1}{4}^{\text{th}}$ fare students)	72 students
Full fare 55% students (equivalent to $\frac{1}{4}^{\text{th}}$ fare students)	264 students
Total $\frac{1}{4}^{\text{th}}$ fare students	354 students

**( 2 Marks )**

**Question-3 ( 4 Marks )**

*Elaborate the practical application of Marginal Costing.*

**Solution: ( 1 marks for each point)**

Practical applications of Marginal costing:

- (i) Pricing Policy: Since marginal cost per unit is constant from period to period, firm decisions on pricing policy can be taken particularly in short term.
- (ii) Decision Making: Marginal costing helps the management in taking a number of business decisions like make or buy, discontinuance of a particular product, replacement of machines, etc.
- (iii) Ascertaining Realistic Profit: Under the marginal costing technique, the stock of finished goods and work-in-progress are carried on marginal cost basis and the fixed expenses are written off to profit and loss account as period cost. This shows the true profit of the period.
- (iv) Determination of production level: Marginal costing helps in the preparation of break-even analysis which shows the effect of increasing or decreasing production activity on the profitability of the company.

**Question 5 ( 4 Marks )**

**X Ltd. is considering the following two alternative financing plans:**

	<b>Plan - I</b>	<b>Plan - II</b>
	<b>Rs.</b>	<b>Rs.</b>
<b>Equity shares of Rs. 10 each</b>	<b>4,00,000</b>	<b>4,00,000</b>
<b>12% Debentures</b>	<b>2,00,000</b>	<b>-</b>
<b>Preference Shares of Rs. 100 each</b>	<b>-</b>	<b>2,00,000</b>
<b>Rs.</b>	<b>6,00,000</b>	<b>6,00,000</b>

**The indifference point between the plans is Rs. 2,40,000. Corporate tax rate is 30%. Calculate the rate of dividend on preference shares.**

**Answer**

$$\begin{aligned} \frac{(EBIT - Interest) (1 - Tax rate)}{No. of Equity Shares (N_1)} &= \frac{EBIT (1 - Tax rate) - Preference Dividend}{No. of Equity Shares (N_2)} \\ \frac{(2,40,000 - 24,000) (1 - 0.30)}{40,000} &= \frac{2,40,000 (1 - 0.30) - Preference Dividend}{40,000} \\ \frac{2,16,000 (1 - 0.30)}{40,000} &= \frac{1,68,000 - Preference Dividend}{40,000} \\ 1,51,200 &= 1,68,000 - Preference Dividend \\ Preference Dividend &= 1,68,000 - 1,51,200 \\ Preference Dividend &= 16,800 \\ Rate of Dividend &= \frac{Preference Dividend}{Preference Share Capital} \times 100 \end{aligned}$$

$$\frac{16,800}{2,00,000} \times 100 = 8.4\%$$

**Question – 6 (4 Marks)**

A Company has an operation leverage of 1.2 as against 1.25 during the previous year. If the current fixed cost is 25% more than that of the previous year, to what extent has the contribution earned by the firm changed over the previous year ?

<b>Solution – 3</b>	Last year	Current year
	$1.25 = \frac{C}{C - F}$	$1.20 = \frac{C}{C - 1.25F}$
	Operating Leverage =	$1.20(C - 1.25F) = C$
	$\frac{\text{Contribution}}{\text{Contribution} - \text{Fixed cost}}$	$1.20C - 1.5F = C$
	$1.25(C - F) = C$	$1.20C - C = 1.5F$
	$1.25C - 1.25F = C$	$0.20C = 1.5F$
	$1.25C - C =$	$C = 7.5F$
	$1.25F$	
	$0.25C = 1.25F$	
	$C = 5F$	
Increase in Contribution in current year over last year =		
$\frac{\text{Current year contribution} - \text{Last year contribution}}{\text{Last year contribution}}$		
$= \frac{7.5F - 5F}{5F} \times 100 = \frac{2.5F}{5F} \times 100 = 50\%$		
50% increase in Contribution over last year.		

**Question 7 (4 Marks)**

Explain briefly the limitations of Financial ratios.

**Answer****Limitations of Financial Ratios**

The limitations of financial ratios are listed below:

- Diversified product lines*: Many businesses operate a large number of divisions in quite different industries. In such cases, ratios calculated on the basis of aggregate data cannot be used for inter-firm comparisons.
- Financial data are badly distorted by inflation*: Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.
- Seasonal factors* may also influence financial data.
- To give a good shape to the popularly used financial ratios (like current ratio, debt-equity ratios, etc.)*: The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be

different had there been no such change.

(e) *Differences in accounting policies and accounting period*: It can make the accounting data of two firms non-comparable as also the accounting ratios.

(f) *There is no standard set of ratios against which a firm’s ratios can be compared*:

Sometimes a firm’s ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.

**Question 8 (8 Marks)**

Using the following data, complete the Balance Sheet given below:

Gross Profit	Rs. 54,000
Shareholders’ Funds	Rs. 6,00,000
Gross Profit margin	20%
Credit sales to Total sales	80%
Total Assets turnover	0.3 times
Inventory turnover	4 times
Average collection period (a 360 days year)	20 days
Current ratio	1.8
Long-term Debt to Equity	40%

*Balance Sheet*

Creditors	.....	Cash	.....
Long-term debt	.....	Debtors	.....
Shareholders’ funds	.....	Inventory	.....
		Fixed assets	.....

**Answer**

Gross Profit                    54,000

Gross Profit Margin        20%

$$\therefore \text{Sales} = \frac{\text{Gross Profit}}{\text{Gross Profit Margin}} = \text{Rs. } 54,000 / 0.20 = \text{Rs. } 2,70,000$$

Credit Sales to Total Sales = 80%

$$\therefore \text{Credit Sales} = \text{Rs. } 2,70,000 \times 0.80 = \text{Rs. } 2,16,000$$

Total Assets Turnover = 0.3 times

$$\therefore \text{Total Assets} = \frac{\text{Sales}}{\text{Total Assets Turnover}}$$

$$= \frac{\text{Rs. } 2,70,000}{0.3} = \text{Rs. } 9,00,000$$

Sales - Gross Profit = COGS

∴ COGS = Rs. 2,70,000 - 54,000 = Rs. 2,16,000

Inventory turnover = 4 times

$$\text{Inventory} = \frac{\text{COGS}}{\text{Inventory turnover}} = \frac{2,16,000}{4} = \text{Rs. } 54,000$$

Average Collection Period = 20 days

$$\therefore \text{Debtors turnover} = \frac{360}{\text{Average Collection Period}} = 360 / 20 = 18$$

$$\therefore \text{Debtors} = \frac{\text{Credit Sales}}{\text{Debtors turnover}} = \frac{\text{Rs. } 2,16,000}{18} = \text{Rs. } 12,000$$

Current ratio = 1.8

$$1.8 = \frac{\text{Debtors} + \text{Inventory} + \text{Cash}}{\text{Creditors}}$$

1.8 Creditors = (Rs. 12,000 + Rs. 54,000 + Cash)

1.8 Creditors = Rs. 66,000 + Cash

Long-term Debt to Equity = 40%

Shareholders' Funds = Rs. 6,00,000

∴ Long-term Debt = Rs. 6,00,000 × 40% = Rs. 2,40,000

∴ Creditors (Balance figure) = 9,00,000 - (6,00,000 + 2,40,000) = Rs. 60,000

∴ Cash = (60,000 × 1.8) - 66,000 = Rs. 42,000

### Balance Sheet

Liabilities	Rs.	Assets	Rs.
Creditors (Bal. Fig)	60,000	Cash	42,000
		Debtors	12,000
Long- term debt	2,40,000	Inventory	54,000
Shareholders' funds	<u>6,00,000</u>	Fixed Assets (Bal fig.)	<u>7,92,000</u>
	<u>9,00,000</u>		<u>9,00,000</u>

### LAW

#### Question: 1

Who is entitled to Bonus? Is there any disqualifications in claiming it? Give examples.

(5 Marks)

#### Answer 1:

**Who is entitled to Bonus:** Every employee of an establishment covered under the Act is entitled to bonus from his employer in an accounting year provided he has worked in that establishment for not less than thirty working days in the year and draws a salary of less than Rs. 21,000/- per month. [Section 2(13) read with Section 8].

If an employee is prevented from working and subsequently reinstated in service, employee's statutory right for bonus cannot be said to have been lost. Nor can the employer refuse to pay such bonus. [ONGC(V) Sham Kumar Sahegal (1995) ILLJ].

There are, however, certain disqualifications of an employee to claim bonus in an accounting year. An employee who has been dismissed from service for (a) fraud; or (b) riotous or violent behaviour while on the premises of the establishment; or (c) Theft, misappropriation or sabotage of any property of the establishment is not entitled for bonus. [Section 9).

An employee, under the Payment of Bonus Act, 1965 in the following cases is not entitled to bonus:

1. An apprentice is not entitled to bonus as he is not included in the definition of an employee under the Act as decided in the case [Wheel & RIM Co. v. Govt. of TN. (1971)].
2. An employee who is dismissed from service on the ground of misconduct as mentioned in Section 9, is disqualified for bonus of the accounting year in which he is dismissed (Pandian Roadways Corporation Ltd. v. Presiding Officer (1996) 2 CLR 1175 (Mad).

**[Note: As per the Payment of Bonus (Amendment) Act, 2015, the eligibility limit for payment of bonus to an employee under section 2(13) has been enhanced from Rs. 10, 000 to Rs. 21,000 per mensem]**

### Question: 2

A is an employee of a company. The amount of the bonus payable to A during the year 2006-07 is Rs. 10,000, but the company paid him Rs. 7,000 only and a sum of Rs. 3,000 was deducted from bonus against the loss suffered by the company due to misconduct of A during the same accounting year. A files a suit against the company for recovery of the deducted amount. Decide whether A would be given any relief by the court under the provisions of the Payment of Bonus Act, 1965? What will be your answer, if the losses are related to the accounting year 2005-06?

**(5 Marks)**

### Answer 2:

Under section 18 of the Payment of Bonus Act, 1965, where in an any accounting year, an employee is found guilty of misconduct causing financial loss to the employer, then the employer can lawfully deduct the amount of loss from the amount of bonus payable by him to the employee in respect of that accounting year only. In this case, and the employee shall get only the balance, if there be any.

After application of the above provision it is clear that 'A' will not get any relief from the court because employer has the right to deduct the said losses from the bonus of employee. In the second case, A will get relief from the Court because the losses are related to the accounting year 2005-06. According to section 18 the employer can deduct the loss suffered from the bonus payable to an employee only in the accounting year in which such loss was incurred due to the misconduct of the employee.

### Question: 3

J accepted a bill of exchange and gave it to K for the purpose of getting it discounted and handing over the proceeds to J. K having failed to discount it returned the bill to J. J tore the bill in two pieces with the intention of cancelling it and threw the pieces in the street. K picked up the pieces and pasted the two pieces together, in such manner that the bill seemed to have been folded for safe custody, rather than cancelled. K put it into circulation



and it ultimately reached L, who took it in good faith and for value. Is J liable to pay the bill under the provisions of the Negotiable Instruments Act, 1881 ?

(5 Marks)

**Answer 3**

The problem is based upon the privileges of a 'holder in due course', Section 120 of the Negotiable Instruments Act, 1881 provides that No..... drawer of a bill shall in a suit thereon by a holder in due course be permitted to deny the validity of the instrument as originally drawn. .... A holder in due course gets a good title of the bill.

Therefore in the given problem J is liable to pay for the bill. L is a holder in due course, who got the bill in good faith and for value. (*Ingham v Primrose*)

**Question: 4**

Explain the essential elements of a promissory note. State, giving reasons, whether the following instruments are valid promissory notes:

- (i) X promises to pay Y, by a promissory note, a sum of Rs. 5,000, fifteen days after the death of B.
- (ii) X promises to pay Y, by a promissory note, Rs. 5000 and all other sums, which shall be due.

(5 Marks)

**Answer 4**

**Essential Elements of a Promissory Note:**

- (d) *Must be in writing.*
- (e) *Promise to pay:* The instrument must contain an express promise to pay.
- (iv) *Definite and unconditional:* The promise to pay must be definite and unconditional. If it is uncertain or conditional, the instrument is invalid.
- (v) *Signed by the maker:* The instrument must be signed by the maker, otherwise it is incomplete and of no effect. Even if it is written by the maker himself and his name appears in the body of the instrument, his signature must be there.
- (vi) *Certain parties:* The instrument must point out with certainty as to who the maker is and who the payee is. When the maker and the payee cannot be identified with certainty from the instrument itself, the instrument, even if it contains an unconditional promise to pay, is not a promissory note.
- (vii) *Certain sum of money:* The sum payable must be certain and must not be capable of contingent additions or subtractions.
- (viii) *Promise to pay money only:* The payment must be in the legal tender money of India.

**Answer to Problem:** In the case number 1, the payment to be made in fifteen days after the death of B. Though the date of death is uncertain, it is certain that B shall die. Therefore the instrument is valid.

In the second case- the sum payable is not certain within the meaning of Section 4 of the Negotiable Instruments Act, 1881- Hence the Promissory Note is not a valid one.

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