Ques.1 A factory is currently working at $50 \%$ capacity and produces 10000 units. Estimate the profits of the company when it works to $60 \%$ and $80 \%$ capacity assuming that the company can sell whatever it produces.
At $60 \%$ working, raw material cost increases by $2 \%$ and selling price falls by $3 \%$. At $80 \%$, raw material \& labour cost increases by $5 \%$ \& efficiency of labour increases by $10 \%$ and selling price falls by $5 \%$.
At $50 \%$ working, the product costs Rs. 180 per unit and Selling price Rs. 200 per unit.

|  | Rs. |
| :--- | :--- |
| Material | 100 |
| Labour | 30 |
| Factory Overhead | $30(40 \%$ fixed $)$ |
| Administration Overhead | $20(50 \%$ fixed $)$ |

What comments can you offer?

Ques. 2 From the following forecast of income \& expenditure prepare a Cash Budget for the three months ending on June $30^{\text {th }}$ 2008:

| Month 2008 | Sales Rs. | Purchase Rs. | Wages Rs. | Misc. Rs. |
| :--- | ---: | ---: | ---: | ---: |
| February | $1,20,000$ | 84,000 | 10,000 | 7,000 |
| March | $1,30,000$ | 80,000 | $1,00,000$ | 8,000 |
| April | $1,16,000$ | $1,04,000$ | 8,000 | 6,000 |
| May | 88,000 | $1,06,000$ | 10,000 | 12,000 |
| June | 80,000 | 8,000 | 6,000 |  |

Additional information:
i. Sales: $20 \%$ realized in the month of sales, discount allowed $2 \%$, balance realized equally in two subsequent months.
ii. Purchases: These are paid in the month following the month of supply.
iii. Wages: $25 \%$ paid in arrears following month.
iv. Misc.: Expenses: Paid a month in arrears.
v. Rent: Rs.1,000 per month paid quarterly in advance due in April.
vi. Income Tax: First instalment of advance tax Rs. 25,000 due on or before $15^{\text {th }}$ June to be paid within the month.
vii. Income from investment: Rs.5,000 received quarterly in April, July etc.

Cash in Hand: Rs.5,000 in April 1, 2008.
Ques. 3 The direct labour hour requirements of three of the products manufactured in a factory, each involving more than one labour operation, are estimated as follows:

Direct labour hours per unit (in minutes)

| Operation | $\mathbf{1}$ | Product |  |
| :---: | :---: | :---: | :---: |
| I | 18 | $\mathbf{2}$ | $\mathbf{3}$ |
| II | -- | 42 | 30 |
| III | 9 | 12 | 24 |

The factory works 8 hours per day, 6 days in a week. The budget quarter is taken as 13 weeks and during a quarter lost hours due to leave and holidays and other causes are estimated to be 124.
The budgeted hourly rates for the workers manning the operations I, II and III are Rs.2.00, Rs.2.50 and Rs.3.00 respectively. The budgeted sales of the products during the quarter are:

| Product 1 | 9,000 units |
| ---: | ---: |
| 2 | 15,000 units |
| 3 | 12,000 units |

There is a carry-over of 5,000 units of Product 2 and 4,000 units of Product 3 and it is proposed to build up a stock at the end of the budget quarter as follows:

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Product 1 1,000 units
1,000 units
```

3

2,000 units
Prepare a man-power budget for the quarter showing for each operation:
(i) direct labour hours.
(ii) direct labour cost, and
(iii) the number of workers.

Ques. 4 Pye Ltd. produces and markets a very popular product called $P$. The company is interested in presenting its budget for the second quarter of 1997.
The following informations are made available for this purpose:
a) It expects to sell 50,000 bags of $P$ during the second quarter of 1997 at the selling price of Rs. 9 per bag.
b) Each bag of $P$ requires 2.5 kg of a raw material called $Q$ and 7.5 kg of raw material called R .
c) Stock levels are planned as follows:

|  | Beginning of Quarter | End of Quarter |
| :--- | :---: | :---: |
| Finished Bags of P (Nos.) | 15,000 | 11,000 |
| Raw Material Q (kgs.) | 32,000 | 26,000 |
| Raw Material R (kgs.) | 57,000 | 47,000 |
| Empty bags (Nos.) | 37,000 | 28,000 |

d) Q costs Rs. 1.20 per kg., R costs 20 paise per kg. And empty bag costs 80 paise each.
e) It requires 9 minutes of direct labour time to produce and fill one bag of $P$. Labour cost is Rs. 5 per hour.
f) Variable manufacturing costs are Rs. 0.45 per bag. Fixed manufacturing costs Rs.30,000 per quarter.
g) Variable selling and administration expenses are $5 \%$ of sales and fixed administration and selling expenses are Rs.25,000 per quarter.

## You are required to :

(a) Prepare a production budget for the said quarter.
(b) Prepare a raw-materials purchase budget for $\mathrm{Q}, \mathrm{R}$ and empty bags for the said quarter in quantity as well as in rupees.
(c) Compute the budgeted variable cost to produce one bag of $P$.
(d) Prepare a statement of budgeted net income for the said quarter and show both per unit and total cost data.

Ques. 5 ZED Ltd. manufactures three types of products, A, B and C and markets them at Rs. 450 , Rs. 550 and Rs. 650 per unit respectively. The current ratio of sales in quantity of $A, B$ and $C$ is $1: 2: 4$.

Relevant Data of A, B \& C (per unit)

| Product | Quantity of parts required there in (In nos.) |  |  |  | Labour hours |  | Var. Overheads |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frame | E | F | G | Skilled | Unskilled |  |
|  | 1 | 10 | 2 | 8 | 6 | 8 | 9 |
|  | 1 | 2 | 14 | 10 | 4 | 6 | 11 |
|  | 1 | 6 | 10 | 2 | 3 | 6 | 7 |

The present purchase price per part is Rs. 45 , Rs. 15 , Rs. 15 and Rs. 5 for frame, E, F and G respectively. The wage rate per hour for skilled and unskilled workers is Rs. 6 and Rs. 5 respectively.
The opening stock as on 1.11 .1995 stood at $500 ; 1,000 ; 3,000 ; 1,500 ; 1,000 ; 20,000$ and 10,000 respectively for A, B, C, frames, E, F and G. The company maintains closing stock of products and parts at $90 \%$ of the opening stocks.
The workers work for 8 hours a day for 25 days in a month.
The share of fixed overheads per month comes to Rs. $15,75,000$; Rs.5,80,000; and Rs. $8,45,000$ for production, administration and selling \& distribution respectively.
The yearly profit as projected upto October, 1996 is Rs. 120 lakhs.
You are required to present the following for November, 1995;
a) Sales budget in quantity as well as in value for $A, B$ and $C$.
b) Production Budget.
c) Parts Usage Budget.
d) Purchase budget in quantity as well as in value.
e) Manpower budget showing labour hours and wages payable for both types of workers.

