Explain the following:

1. Acid test ratio.
3. Overhead expenditure variance.
4. Fund from operations.
5. Margin of safety.
6. From the following calculate earnings per share:
   - Net profit after tax Rs.2,00,000
   - 10% Preference share capital Rs.4,00,000
   - Equity share capital Rs.100 each Rs.10,00,000.
7. Calculate fund from operations from the following:
   - Net profit during the year Rs.90,000
   - Dividend received Rs.7,000
   - Depreciation charged Rs.10,000
   - Profit on sale of assets Rs.5,000
   - Preliminary expenses written off Rs.2,000.
8. Product A requires 10 kgs of material at Rs.4 per kg. The actual material cost of making Product A was 9 kgs at Rs.5 per kg. Calculate material, usage and price variance.
9. An automobile company finds that the cost of making a component is Rs.6, whereas the same item is available in the market at Rs.5.60. The cost data to manufacture the part comprises of:
   - Material Rs.2; Direct Labour Rs.2.50; variable overheads Rs.0.50 and fixed overheads (allocated) Re.1.
   - Should the part be made or bought?
10. Sales Rs.25,00,000; PV ratio 40%; Fixed cost Rs.5,00,000.
   - Calculate Profit and Margin of Safety.

12. Explain the merits and limitations of Ratio Analysis.

13. A company produces 3 products, A, B and C, which have the following details:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material cost at Rs.5 per kg</td>
<td>40</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Labour cost</td>
<td>20</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Variable overheads</td>
<td>10</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Selling price per unit</td>
<td>100</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>Market demand (units)</td>
<td>3000</td>
<td>4000</td>
<td>2000</td>
</tr>
</tbody>
</table>

The company must produce 1000 units of A. The maximum quantity of material available is 37,000 kgs.

What is the product mix to be produced that will maximise profit? If the total fixed expenses are Rs.40,000, what will be the profit for this production?

14. Calculate labor variances from the following data:

Budgeted labor for completing Job X:
8 men at Rs.10 per hour for 20 hours
12 women at Rs.8 per hour for 20 hours

Actual labor for completing Job X:
12 men at Rs.11 per hour for 20 hours
13 women at Rs.7 per hour for 20 hours

Calculate labor cost, efficiency, rate and mix variance.

15. A company expects to sell 100000 tins of product X during the last quarter of 2008 at a selling price of Rs.60 per tin. Each tin requires 1 kg of material A and 2 kgs of material B. Stock levels are planned as follows:

<table>
<thead>
<tr>
<th></th>
<th>Stock on 1.10.08</th>
<th>Stock on 31.12.08</th>
<th>Purchase price/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished tins</td>
<td>20000</td>
<td>15000</td>
<td>-</td>
</tr>
<tr>
<td>of X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material A (kgs)</td>
<td>18000</td>
<td>22000</td>
<td>Rs.10</td>
</tr>
<tr>
<td>Material B (kgs)</td>
<td>26000</td>
<td>30000</td>
<td>Rs.8</td>
</tr>
<tr>
<td>No. of empty tins</td>
<td>24000</td>
<td>28000</td>
<td>Rs. 2 per tin</td>
</tr>
</tbody>
</table>

The time required to produce 1 tin of X is 20 minutes at Rs.12 per hour. Variable manufacturing overheads are 0.75 per tin and fixed manufacturing overheads are Rs.8000 per month. Variable selling expenses are 25 paise per tin sold and Fixed selling expenses are Rs.12000 per quarter.

Prepare for the quarter ended 31.12.2008
(a) production budget
(b) purchase budget
(c) variable manufacturing cost per tin of product X.
16. Prepare a Balance Sheet from the following data:
   - Gross profit ratio 20%
   - Debtors turnover 6 times
   - Fixed assets to net worth 0.80
   - Reserves to share capital 0.50
   - Current ratio 2.5
   - Liquid ratio 1.5
   - Net working capital Rs.3,00,000
   - Stock turnover 6 times

17. The following is budgeted cost per unit for the production of 5000 units at 50% capacity.
   - Material Rs.20
   - Labor Rs.10
   - Factory overheads Rs. 5 (20% fixed)
   - Administration overheads Rs. 4 (fixed)
   - Selling overheads Rs. 2 (40% variable)

   Prepare a budget for a production of 8,000 units and calculate the budgeted profit, if the selling price is Rs.60 per unit.

18. From the following prepare income statement and calculate the following ratios:
   i) Operating ratio
   ii) Operating profit ratio
   iii) Net profit ratio
   iv) Interest coverage ratio

   Sales Rs.10,00,000
   Opening stock Rs.2,00,000
   Purchases Rs.6,00,000
   Purchase return Rs.1,50,000
   Closing stock Rs.50,000
   Administration expenses Rs.60,000
   Selling expenses Rs.40,000
   Interest Rs.1,50,000
   Provision for tax Rs.50,000

PART C
Answer ANY TWO questions  
Marks:2x20=40

19. The sales turnover and profit during 2 years were as follows:
<table>
<thead>
<tr>
<th>Year</th>
<th>Sales(Rs.)</th>
<th>Profit(Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1,50,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2012</td>
<td>1,70,000</td>
<td>28,000</td>
</tr>
</tbody>
</table>

   Assuming that selling price per unit, variable cost per unit and the total fixed cost for the two years remain the same, calculate:
   a) PV ratio
   b) Break even sales
   c) Sales to earn a profit of Rs.40,000
   d) Profit when sales are Rs.2,60,000
   e) Margin of safety when profit is Rs.50,000
   f) New break even sales when selling price is reduced by 20%
20. X Ltd., gives you the following budgeted data from which you are required to prepare a cash budget for the months of April and May 2012.

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales(Rs)</th>
<th>Purchases(Rs)</th>
<th>Wages(Rs)</th>
<th>Production Overheads(Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>60,000</td>
<td>30,000</td>
<td>20,000</td>
<td>10,000</td>
</tr>
<tr>
<td>March</td>
<td>70,000</td>
<td>40,000</td>
<td>25,000</td>
<td>12,000</td>
</tr>
<tr>
<td>April</td>
<td>90,000</td>
<td>50,000</td>
<td>30,000</td>
<td>15,000</td>
</tr>
<tr>
<td>May</td>
<td>1,00,000</td>
<td>50,000</td>
<td>30,000</td>
<td>14,000</td>
</tr>
</tbody>
</table>

a) 50% of the sales are for cash. Credit sales are collected as follows: 60% in the month following the sale, 30% in the next month following and 10% are bad debts.

b) 20% of the purchases are for cash. Suppliers allow 1 month credit.

c) Lag in payment of wages ½ month.

d) Production overheads are payable in the same month and include Rs.2,000 p.m. as depreciation.

e) Fixed deposit of Rs.20,000 along with Rs,2,000 interest will mature in May.

f) A computer costing Rs.30,000 is to be bought in April on a down payment of Rs.5,000 and the balance with interest in five equal instalments of Rs.6,000 each, payable at the end of each month, including the month of purchase.

g) Budgeted cash balance on 1st April 2012 Rs.40,000/-

21. From the following Balance sheets on 31/12/2011 and 31/12/2012 prepare a Fund Flow statement:

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>2011(Rs)</th>
<th>2012(Rs)</th>
<th>Assets</th>
<th>2011(Rs.)</th>
<th>2012(Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share capital</td>
<td>4,50,000</td>
<td>4,50,000</td>
<td>Fixed assets</td>
<td>4,00,000</td>
<td>3,20,000</td>
</tr>
<tr>
<td>General reserve</td>
<td>3,00,000</td>
<td>3,10,000</td>
<td>Investments</td>
<td>50,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Profit and loss a/c</td>
<td>56,000</td>
<td>68,000</td>
<td>Stock</td>
<td>2,40,000</td>
<td>2,10,000</td>
</tr>
<tr>
<td>Creditors</td>
<td>1,68,000</td>
<td>1,34,000</td>
<td>Debtors</td>
<td>2,10,000</td>
<td>4,55,000</td>
</tr>
<tr>
<td>Mortgage loan</td>
<td>20,000</td>
<td>2,70,000</td>
<td>Bank</td>
<td>1,49,000</td>
<td>1,97,000</td>
</tr>
<tr>
<td>Tax provision</td>
<td>55,000</td>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10,49,000</td>
<td>12,42,000</td>
<td></td>
<td>10,49,000</td>
<td>12,42,000</td>
</tr>
</tbody>
</table>

Additional information:

i) Investments costing Rs.8,000 were sold during the year for Rs.8,500.

ii) Depreciation charged on Fixed assets was Rs.70,000

iii) Provision for tax made during the year was Rs.10,000.

iv) During the year part of the fixed assets whose book value was Rs.10,000 were sold for Rs.12,000 and profit was included in Profit and Loss account.

v) Dividend paid during the year amounted to Rs.40,000.

$$$$$$