**BHARATHIDASAN UNIVERSITY MODEL COLLEGE,**

**THANDALACHERY, THIRUTHURAIPOONDI**

**CLASS: BBA III YEAR (16CCBB14)**

**SUBJECT: MANAGEMENT ACCOUNTING**

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 PART A.**2 MARK QUESTIONS**

1. **Define Management Accounting.**
2. **Define Cost Accounting.**
3. **What are the different types of Financial Analysis?**
4. **What are the objectives of management accounting?**
5. **What do you mean by Trent Analysis?.**
6. **What is comparative financial statement?**
7. **Define Ratio.**
8. **Define Fund Flow Statement.**
9. **What are the managerial uses of Fund Flow Statement?**
10. **How does fund flow statement differ from Income statement”.**
11. **What is cash flow statement?**
12. **What is Contribution?**
13. **Define EPS.**
14. **Define Working Capital.**
15. **What are solvency Ratio?**
16. **What is Break Even Point?**
17. **Define Margin of Safety.**
18. **State the uses of Cash Flow Statement?**
19. **What are the difference between absorption costing and marginal costing?.**
20. **Define angle of incidence.**
21. **What is meant by Budgetary Control?**
22. **Define Budget Manual.**
23. **What is Sales Budget?**
24. **What are the essentials of Budgeting?**
25. **What are Zero Base Budgeting?**
26. **What is cash budget? Give purpose.**
27. **What is Flexible Budget?**
28. **Define Marginal Costing?**
29. **What is P/V Ratio?**
30. **What are the limitation of Absorption costing?**
31. **What is net working capital?**
32. **Define Fixed capital.**
33. **What is gross working capital?**
34. **What is current Assets? Give example.**
35. **Define Standard Costing.**
36. **What are the types of working capital?**
37. **Define profit Volume analysis.**
38. **Define margin of safety?**
39. **What is Variance Analysis?**
40. **Define Cost variance?**
41. **What is material cost variance?**
42. **What is labour cost variance?**
43. **Define Labour Mix variance.**
44. **What are the sources of Working capital?**
45. **Define Excess of working capital.**

**BHARATHIDASAN UNIVERSITY MODEL COLLEGE,**

**THANDALACHERY**

**MODEL EXAMINATION- APRIL 2020**

**CLASS: BBA III Year Sub Code: 16CCBB14**

 **Max Marks:75**

# MANAGEMENT ACCOUNTING

**SECTION-A Answer all the questions: 10\*2=20**

1. What is meant by ratio analysis?

2. State the nature of management accounting.

3. What is network capital?

4. Write down any two merits of cash flow statement

5. Give the marginal costing equation

6. What is break even point?

7. Explain any two objectives of budgetary control?

8. What is variance?

9. Define payback period?

10. Give the formula for net present value?

**Part – B Answer All the Questions: 5X5=25**

11.a.What are the merits of marginal costing? (or)

b. Explain the limitation of ratio analysis?

12.a. From the following trading and profit and loss account of Kaveri Ltd, ascertain fund from operations;

Trading and profit and loss account for the year ending 31-3-2013.

To cost of goods sold 240000 By sales 400000

To Gross profit c/d 160000

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 400000 400000

To stationary 6000 By gross profit 160000

To depreciation 14000

To salaries 20000

To loss on sale of investment 2000

To rent and taxes 8000

To dis. On issue of debentures 4000

To postage 3000

To provision for tax 20000

To proposed dividend 10000

To net profit 73000

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 160000 160000

b. from the following balances, you are required to calculate cash from operations:

 31-12-98 31-12-99

Debtors 50000 470000

Bills receivable 10000 12500

Creditors 20000 25000

Expenses outstanding 1000 1200

Expenses prepaid 800 700

Accrued income 600 750

Income received in advance 300 250

Net profit made -- 130000

Bills payable 8000 6000

13.a.Fron the following data calculate Break- Even point

 Rs.

 Selling price per unit 20

Direct material cost per unit 8

Direct labour cost per unit 2

Direct expenses cost per unit 2

Overhead per unit 3

Fixed overhead (total) 20000

If sales are 20% above the Break even point, determine the net profit.

b. From the following data, which product would you recommend to be manufactured in a factory, time being the key factor?

 Product A Product B

 (Per unit cost in Rs)

Direct Material 24 14

Direct labour @Re.1 per hour 2 3

Variable overhead @2 per hour 4 6

Selling price 100 110

Standard time to produce 2 hours 3 hours

14.a The Royal industries has prepared its annual sales forecast, expecting to achieve sales of Rs.30,00,000 next year. The controller is uncertain about the pattern of sales to be expected by month and ask you to prepare a monthly budget of sales.

The following sales data pertain to the year which is considered to be representative of a normal year.

 **Month Sales (Rs.)**

 January 110000

 February 115000

 March 100000

April 140000

May 180000

June 225000

July 260000

August 330000

September 340000

October 350000

November 200000

December 150000

 Prepare a monthly sales budget for the coming year on the basis of the above data.

14.b. A manufacturing concern which has adopted standard costing furnishes the following information.

**Standard:**

Material for 70kg of finished products 100kg

Price of materials Rs.1 per kg

**Actual:**

Output 210000 kg

Material used 280000 kg

Cost of materials Rs. 252000

Calculate:

a) Material usage variance b) Material price variance and

c) Material cost variance.

15.a A company proposing to expand its production can go in either for an automatic machine costing Rs. 2,24,000. With an estimated life of 51/2 years or an ordinary machine costing Rs.60000 having an estimated life of 8 years. The annual sales and costs are estimated as follows:

 **Automatic machine Ordinary machine**

 Rs. Rs.

Sales 150000 150000

Costs:

Material 50000 50000

Labour 12000 60000

Variable O/H 24000 20000

Compute the comparative profitability of the proposals under “Pay Back Period”.

15.b. A. Ltd proposes to introduce a new machine to increase production capacity. Two machines are available Type X and Type Y. The Following information is available in respect of Type X and Type Y. Advise which machine should be purchased, employing the pay back period method:

 **Machine X Machine Y**

Estimated life of machine 6 years 5 years

Cost of machine 18000 36000

Estimated savings in scrap 3000 6600

Estimated savings in direct 10000 11000

wages

Actual cost of maintenance 1500 1600

Actual cost of supervision 2500 4000

**Part – C Answer All the Questions: 3X10=30**

16.What are financial statements? Bring out its uses.

17.Balance sheet of a firm as on 1st January 2009 and 31st December 2009 were as follows:

 **1-1-99 31-12-99**

**Assets:**

Cash 10000 47000

Debtors 30000 50000

Stock 35000 25000

Machinery 80000 55000

Land 40000 10000

Building 35000 60000

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 230000 247000

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**Liabilities:**

Creditors 40000 44000

Loan from X 25000 --

Loan from Y 40000 50000

Capital 125000 15300

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 230000 247000

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During the year a machine costing Rs.10000 (accumulated depreciation Rs.3000) was sold for Rs.5000. the balance provision for depreciation against machinery as on 1st January 2009 was Rs.25000 and on 31st December 2009 Rs.40000. net profit for the year 2009 amounted to Rs.45000.

 Prepare fund flow statement.

18. Taj Ltd has prepared the following budget estimated for the year 2013-2014.

Sales units - 15000

Fixed expenses -Rs.34000

Sales value -Rs.150000

Variable cost - Rs.6 per unit

 You are required to

a) Find the P/V ratio b) Break even point and c) Margin of safety

19. Prepare a flexible budget for overheads on the basis of the following data. Ascertain the overhead rates at 50%, 60% and 70% capacity.

 At 60% capacity

**Variable overheads**

Indirect material 6000

Indirect labour 18000

Semi-variable overheads

Electricity(40% fixed and 60% variable) 30000

Repairs (80% fixed and 20% variable)` 3000

Fixed overheads:

Depreciation 16500

Insurance 4500

Salaries 15000

Total overheads 93000

Estimated direct labour hours 186000

20. Project X initially costs Rs.25000. it generates the following cash flow

Year cash inflow present value of Rs.1 at 10%

I Rs.9000 .909

II Rs.8000 .826

III Rs.7000 .751

IV Rs.6000 .683

V Rs.5000 .621

Taking the cut-off rate as 10% suggest whether the project should be accepted or not.

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**UNIT – V**

**WORKING CAPITAL**

**Meaning of working capital:**

According to Weston & Brigham - “Working capital refers to a firm’s investment in short term assets, such as cash amounts receivables, inventories etc.

Working capital can be understood as a measure of both a company’s efficiency and its shortterm financial health. For a layman, it simply means the difference between the current assets and current liabilities. It is the firm’s holdings of current, or short-term, assets

**Importance of Working Capital:**

1. **Solvency of the business:** Adequate working capital helps in maintaining solvency of the business by providing uninterrupted flow of production.

2. **Goodwill**: Sufficient working capital enables a business concern to make prompt payments and hence helps in creating and maintaining goodwill.

**3. Easy Loans**: A concern having adequate working capital, high solvency and good credit standing can arrange loans from banks and other on easy and favourable terms.

4. **Cash discounts**: Adequate working capital also enables a concern to avail cash discounts on the purchases and hence it reduces costs.

 5**. Regular supply of raw materials:** Sufficient working capital ensures regular supply of raw materials and continuous production.

**6. Regular payment of salaries, wages and other day-to-day commitments:** A company which has ample working capital can make regular payment of salaries, wages and other day-to-day commitments which raises the morale of its employees, increases their efficiency, reduces wastages and costs and enhances production and profits.

 **7. Exploitation of favourable market condition:** Only concern with adequate working capital can exploit favourable market conditions such as purchasing its requirements in bulk when the prices are lower and by holding its inventories for higher prices.

 **8. Ability to face crisis:** Adequate working capital enables a concern to face business crisis in emergencies such as depression because during such periods, generally, there is much pressure on working capital.

**9. Quick and regular return on investments:** Every investor wants a quick and regular return on his investments. Sufficiency of working capital enables a concern to pay quick and regular dividends to its investors as there may not be much pressure to plough back profits.

**10. High morale**: Adequacy of working capital creates an environment of security, confidence, and high morale and creates overall efficiency in a business.

**STRUCTURE OF WORKING CAPITAL**:

The different elements or components of current assets and current liabilities constitute the structure of working capital which can be illustrated in the shape of a chart as follows:

**STRUCTURE OF CURRENT ASSETS AND CURRENT LIABILITIES**

|  |  |
| --- | --- |
| **Current Liabilities** | **Current Assets** |
| Bank Overdraft | Cash and Bank Balance |
| Creditors | Inventories: Raw-Materials Work-in-progress Finished Goods |
| Outstanding Expenses | Spare Parts |
| Bills Payable | Accounts Receivables |
| Short-term Loans | Bills Receivables |
| Proposed Dividends | Accrued Income |
| Provision for Taxation, etc | Prepaid Expenses Short-term Investments |

**Classification or Kinds of Working Capital:**

a) Concept based working capital

b) Time based working capital

 c) Classification on the basis of financial reports.

**a) CONCEPT BASED WORKING CAPITAL**

1. Gross Working Capital

2. Net Working Capital

3. Negative Working Capital

1. **Gross Working Capital:** It refers to the firm’s investment in total current or circulating assets.

2. **Net Working Capital:** The term “Net Working Capital” has been defined in two different ways:

**3. Negative Working Capital:** This situation occurs when the current liabilities exceed the current assets. It is an indication of crisis to the firm.

**b) TIME BASED WORKING CAPITAL**

1. Permanent or Fixed Working Capital

 (a) Regular Working Capital

(b) Reserve Working Capital

2. Temporary or Variable Working Capital

 (a) Seasonal Working Capital

(b) Special Working Capital

**1. Permanent Working Capital**: This refers to that minimum amount of investment in all current assets which is required at all times to carry out minimum level of business activities.

**2. Temporary Working Capital**: The amount of such working capital keeps on fluctuating from time to time on the basis of business activities. In other words, it represents additional current assets required at different times during the operating year.

Classification on the basis of financial reports – The information of working capital can be collected from Balance Sheet or Profit and Loss Account; as such the working capital may be classified as follows:

1. **Cash Working Capital** – This is calculated from the information contained in profit and loss account. This concept of working capital has assumed a great significance in recent years as it shows the adequacy of cash flow in business. It is based on ‘Operating Cycle Concept’.
2. **Balance Sheet Working Capital** – The data for Balance Sheet Working Capital is collected from the balance sheet. On this basis the Working Capital can also be divided in three more types, viz., gross Working Capital, net Working Capital and Working Capital deficit.

**FACTORS DETERMINANTS OF WORKING CAPITAL :**

|  |  |
| --- | --- |
| Internal Factors | External Factors |
| 1. Nature and size of the business
 | 1. Business fluctuations
 |
| 1. Firm’s production policy
 | 1. Changes in the technology
 |
| 1. Firm’s credit policy
 | 1. Import policy
 |
| 1. Availability of credit
 | 1. Infrastructural facilities
 |
| 1. Growth and expansion of business
 | 1. Taxation policy
 |
| 1. Profit margin and dividend policy
 |  |
| 1. Operating efficiency of the firm
 |  |
| 1. Co-coordinating activities in firm
 |  |

**I. INTERNAL FACTORS**

**1. Nature and size of the business:**

The working capital requirements of a firm are basically influenced by the nature and size of the business. Size may be measured in terms of the scale of operations. A firm with larger scale of operations will need more working capital than a small firm.

**2. Firm’s production policy :**

The firm’s production policy (manufacturing cycle) is an important factor to decide the working capital requirement of a firm. The production cycle starts with the purchase and use of raw material and completes with the production of finished goods.

**3. Firm’s credit policy:**

The credit policy of a firm influences credit policy of working capital. A firm following liberal credit policy to all customers requires funds. On the other hand, the firm adopting strict credit policy and grant credit facilities to few potential customers will require less amount of working capital.

 **4. Availability of credit:**

 The working capital requirements of a firm are also affected by credit terms granted by its suppliers – i.e. creditors. A firm will need less working capital if liberal credit terms are available to it.

**5. Growth and expansion of business:**

Working capital requirement of a business firm tend to increase in correspondence with growth in sales volume and fixed assets. A growing firm may need funds to invest in fixed assets in order to sustain its growing production and sales. This will, in turn, increase investment in current assets to support increased scale of operations. Thus, a growing firm needs additional funds continuously.

**6. Profit margin and dividend policy:**

The magnitude of working capital in a firm is dependent upon its profit margin and dividend policy. A high net profit margin contributes towards the working capital pool. To the extent the net profit has been earned in cash, it becomes a source of working capital. This depends upon the dividend policy of the firm.

 **7. Operating efficiency of the firm:**

Operating efficiency means the optimum utilisation of a firm’s resources at minimum cost. If a firm successfully controls operating cost, it will be able to improve net profit margin which, will, in turn, release greater funds for working capital purposes.

**8. Co-ordinating activities in firm:**

The working capital requirements of a firm are depend upon the co-ordination between production and distribution activities. The greater and effective the co-ordinations, the pressure on the working capital will be minimized. In the absence of co-ordination, demand for working capital is reduced.

 **II. External Factors**

1. **Business fluctuations;**

Most firms experience fluctuations in demand for their products and services. These business variations affect the working capital requirements. When there is an upward swing in the economy, sales will increase, correspondingly, the firm’s investment in inventories and book debts will also increase. On the other hand when, there is a decline in economy, sales will come down and consequently the conditions, the firm try to reduce their short-term borrowings. Similarly the seasonal fluctuations may also affect the requirement of working capital of a firm.

1. **Changes in the technology:**

The technological changes and developments in the area of production can have immediate effects on the need for working capital. If the firm wish to install a new machine in the place of old system, the new system can utilise less expensive raw materials, the inventory needs may be reduced there by working capital needs.

1. **Import policy:**

Import policy of the Government may also effect the levels of working capital of a firm since they have to arrange funds for importing goods at specified times.

1. **Infrastructural facilities:**

The firms may require additional funds to maintain the levels of inventory and other current assets, when there is a good infrastructural facility in the company like transportation and communications.

1. **Taxation policy:**

The tax policies of the Government will influence the working capital decisions. If the Government follows regressive taxation policy, i.e. imposing heavy tax burdens on business firms, they are left with very little profits for distribution and retention purpose. Consequently the firm has to borrow additional funds to meet their increased working capital needs. When there is a liberalized tax policy, the pressure on working capital requirement is minimized. Thus the working capital requirements of a firm are influenced by the internal and external factors.

**ESTIMATION OF WORKING CAPITAL REQUIREMENTS**

The following points are also worth noting while estimating the working capital requirement:

1**. Depreciation**: An important point worth noting while estimating the working capital requirement is the depreciation on fixed assets. The depreciation on the fixed assets, which are used in the production process or other activities, is not considered in working capital estimation. The depreciation is a non-cash expense and there is no funds locked up in depreciation as such and therefore, it is ignored. Depreciation is neither included in valuation of work-in-progress nor in finished goods. The working capital calculated by ignoring depreciation is known as cash basis working capital. In case, depreciation is included in working capital calculations, such estimate is known as total basis woking capital.

 **2. Safety Margin**: Sometimes, a firm may also like to have a safety margin of working capital in order to meet any contingency. The safety margin may be expressed as a % of total current assets or total current liabilities or net working capital. The safety margin, if required, is incorporated in the working capital estimates to find out the net working capital required for the firm. There is no hard and fast rule about the quantum of safety margin and depends upon the nature and characteristics of the firm as well as of its current assets and current liabilities

**Define - standards costing?**

Standard cost is “a pre –determined cost” which is calculated from managements standards of efficient operation and the relevant necessary expenditure .(ICMA London)

**What is meant by labour cost variance?**

This the difference between the standard wages specified and the actual wages paid.

**What is meant by Labour yield variance?**

It is a part of labour efficiency variance. It arises due to the difference between standard yield and actual yield.

**What is meant by overhead variance?**

This is the difference between the standard over head specified and the actual overhead incurred. overhead cost variance =standard overhead- actual overhead.

**STANDARD COSTING**

**Standard cost:**

 Standard cost is a figure which represents an amount that can be taken as a typical of the cost of an article or other cost factor. It is established on the basis of planed operations, planed cost efficiency levels, and expected capacity utilization.

**Standard Costing:**

 A standard costing system is a method of cost accounting in which standard costs are used in recording certain transaction and the actual costs are compared with the standard cost to learn the amount and reason for variations from the standard. ‐  W.B. Lawrence.

**Advantages of Standard Costing:**

1. **Proper Planning**: It helps to apply the principle of “Management by exception”. That is, the management need not worry over those activities which proceed in tandem plans. It is only on the issues of exceptions that they have to concentrate.

2. **Efficient Cost Control**: Standard Costing is a tool for the management to gain reduction in the cost and control over it. Under this technique, differences are analyzed and responsibilities are determined.

3. **Motivational Factor**: Labour efficiency is promoted and they are destined to be cost conscious. Standards provide incentives and motivation to work with greater effort. This increases efficiency and productivity.

 4. **Comparison of Forecasting and Outcome**: A target of efficiency is set for the employees and the cost consciousness is stimulated. Since the process of standard costing allow an appraisal to be made of personnel, machines and method of working, current inefficiencies come to the notice and get eliminated.

5. **Inventory Control:** Standard costing facilitates inventory control and simplifies inventory valuations. This ensures uniform pricing of stocks in the form of raw materials, work‐in‐progress and finished goods.

 6. **Economical System**: Standard costing system is economical system from the viewpoint that it does not require detailed records. It also des not require a big staff. It results in the reduction in paper work in accounting and needs very few records. Thus, there is saving of time as well as money.

  7. **Helpful in Budgeting**: Budgets are prepared on the basis of standard costing. Standards which are set up in respect of materials, labour and overheads, are helpful in preparing various budgets. For example, flexible budget, sales budget, etc.

8. **Helps Formulate Policies**: This technique is a valuable aid to the management in determining prices and formulating production policies. Standard costing equips cost estimates while planning the production of new products.

9. **Helps Distinguish Activities**: Standard costing helps in distinguishing between skilled and unskilled activities. So the skilled worker only gives pays attention to improving the activities of the unskilled workers.

 10. **Eliminates Wastage**: Through fixing standard, certain waste such as material wastage, idle time, lost machine hours, etc. are reduced.

**Limitations of Standard Costing:**

1. **Costly System**: Because the Standard Costing requires highly skillful and competent personnel, it becomes a costly system too. For the same experts are paid high remuneration.

2. **Difficulties in Fixation of Standard**: It is always difficult to determine precise standard costs in a given situation which will coincide with actual cost when operations are over. Standard cost are determined partly by the past experience and partly by the cost projections based on advanced statistical techniques. Thus, uncertainties revolve around standards.

3. **Constraint for Service Industry:** Standard costing is applied for planning and controlling manufacturing costs. Thus, it cannot be applied in a service industry.

4**. Consistency of Standard**: because the standards of marginal costing fluctuate and vary time to time, it is difficult to always sustain and continue the same standards.

 5**. Unsuitable for Non‐standardised Products:** Standard costing is expensive and unsuitable for job manufacturing industries as they manufacture non standardized products such as catering, tailoring, printing, etc.

6**. Relatively Fixed Standards**: A business may not be able to keep standards up‐to‐date. In other words, a business may not revise standards to keep pace with the frequent changes in manufacturing conditions. Firms may avoid revising standards as it is a costly affair.

**7. Difficulties for Small Industries**: Establishment of standards and their implementation involve initial high costs. Standards have to be revised and new standards be fixed involving larger costs.

**STEPS IN STANDARD COSTING**

**Set the standard cost**

* A standard quantity is predetermined and standard price per unit is estimated.
* Budgeted cost is calculated by using standard cost.

**Record the actual cost**

* Calculate actual quantity and cost incurred giving full details.

**Variance Analysis**

* Comparison of the actual cost with the budgeted cost.
* The cost variance is used in controlling cost.
* Take suitable corrective action.
* Fix responsibilities to ensure compliance
* Create effective control system.
* Resetting the budget, if required.

**TYPES OF STANDARDS**

1. **Ideal Standards** : These represents the level of performance attainable when prices for material and labour are most favorable, when the highest output is achieved with the best equipment and layout and when maximum efficiency in utilization of resources results in maximum output with minimum cost.
2. **Normal Standards** : These are the standards that may be achieved under normal operating conditions. The normal activity has been defined as number of standard hours which will produce normal efficiency sufficient goods to meet the average sales demand over a term of years.
3. **Basic or Bogey standards** : These standards are use only when they are likely to remain constant or unaltered over long period. According to this standard, a base year is chosen for comparison purposes in the same way as statistician use price indices. When basic standards are in use, variances are not calculated as the difference between standard and actual cost. Instead, the actual cost is expressed as a percentage of basic cost.
4. **Current Standard** : These standards reflect the management’s anticipation of what actual cost will be for the current period. These are the costs which the business will incur if the anticipated prices are paid for goods and services and the usage corresponds to that believed to be necessary to produce the planned output.

**VARIANCE**

**Meaning of Variance**

 Variance means the deviation of the actual cost or actual sales from the standard cost or profit or sales. Calculation of variances is the main object of standard costing. This calculation shows that whether costs are under controlled or not. A variance may be favorable or adverse.

The process of computing the amount of variance and isolate the causes of variances between actual and standard.

* The difference between standard cost and actual cost of the actual output is defined as Variance. A variance may be favourable or unfavourable.
* If the actual cost is less than the standard cost, the variance is favourable and if the actual cost is more than the standard cost, the variance will be unfavourable.
* It is not enough to know the figures of these variances in fact it is required to trace their origin and causes of occurrence for taking necessary remedial steps to reduce / eliminate them.

**Types of Variance**

 The purpose of standard costing reports is to investigate the reasons for significant variances so as to identify the problems and take corrective action. Variances are broadly of two types, namely, controllable and uncontrollable.

1. **Controllable Variance** : Controllable variances are those which can be controlled by the departmental heads whereas uncontrollable variances are those which are beyond their control. If uncontrollable variances are of significant nature and are persistent, the standards may need revision.
2. **Variance Analysis :** Variance analysis is the dividing of the cost variance into its components to know their causes, so that one can approach for corrective measures.
3. **Variances of Efficiency :** Variance arising due to the effectiveness in use of material quantities, labour hours. Here actual quantities are compared with predetermined standards.
4. **Variances of Price Rates :** Variances arising due to change in unit material prices, standard labour hour rates and standard allowances for indirect costs. Here actual prices are compared with predetermined ones.
5. **Variances of Due to Volume :** Variance due to effect of difference between actual activity and the level of activity estimated when the standard was set.

**Reasons of Material Variance**

* Change in Basic price.
* Fail to purchase anticipated standard quantities at appropriate price.
* Use of sub-standard material.
* Ineffective use of materials. Pilferage.

**Material Variance :**

1. Material Cost Variance = (Standard Quantity X Standard Price) – (Actual Qty X Act Price)
2. Material Price Variance = Actual Quantity (Standard Price - Actual Price)
3. Material Usage Variance = Standard Price (Standard Quantity - Actual Quantity)
4. Material Mix Variances = Standard Price (Std. Mix ‐ Actual Mix)



1. Material Yield Variances = Standard Yield Price (Std. Yield ‐ Actual Yield)



**Reasons of Labour Variance**

**Time Related Issues.**

* Change in design and quality standard.
* Low Motivation.
* Poor working conditions.
* Improper scheduling/placement of labour.
* Inadequate Training.

 **Rate Related Issues.**

* Increments / high labour wages.
* Overtime.
* Labour shortage leading to higher rates.
* Union agreement.

**LABOUR VARIANCE**

* + 1. Labour Cost Variance = (Standard Hrs X Standard Rate Per Hour) –(Actual Hrs X Actual Rate Per Hour)
		2. Labour Rate Variance = Actual Hrs (Standard Rate - Actual Rate)
		3. Labour efficiency Variance = Standard Rate (Std Hrs - Actual Hrs worked)
		4. Idle Time Variance = Idle Hours X Std Rate

**PROBLEMS**

**COMPUTATION OF VARIANCE**

**Variance can be divided into two categories. 1. Cost variance 2. Sales variance**

**COST VARIANCE**

**Total cost variance is the difference between standard cost for the actual output and the actual total cost incurred. The total cost variance can be subdivided as follows:**

**Total cost variance**

**Direct Material cost variance Direct Labour cost variance overhead cost variance**

 **(DMCV) ) (DLCV) (OCV)**

**I. DIRECT MATERIAL COST VARIANCE**

**It is the difference between standard direct material cost for the actual output and the actual cost of direct material used. Standard material cost is the product of standard price per unit of material and the standard quantity of material for actual output.**

**Formula**

**DMCV = (standard price X standard quantity) – (Actual price X Actual quantity)**

 **(SP X SQ) – ( AP X AQ)**

**II. DIRECT MATERIAL PRICE VARIANCE**

**It is that portion of the direct material cost variance which is due to the difference between the standard price specified and the actual price paid.**

**Formula**

**DMPV = Actual quantity – (Standard price - Actual Price)**

 **AQ – ( SP X AP)**

**III. DIRECT MATERIAL USAGE VARIANCE**

**It is the difference between the standard cost of standard quantity of material for actual output and the standard cost of the actual material used.**

**Formula**

**DMUV = Standard price X (Standard Quantity - Actual Quantity)**

 **SP – ( SQ X AQ)**

**IV. DIRECT MATERIAL MIX VARIANCE**

**According to ICMA., “ Material mix variance is that portion of the direct material usage variance which is due to the difference between the standard actual composition of a mixture. The mix variance has to be computed only when tow or material used.**

**Formula**

**DMMV = Standard price X (Revised Standard Quantity - Actual Quantity)**

 **SP – (RSQ X AQ)**

**I. DIRECT LABOUR COST VARIANCE**

**It is the difference between direct labour cost allowed for the actual output and the actual direct labour cost incurred.**

**The difference between the standard direct wages specified for the activity achieved and the actual direct wages paid.**

**Formula**

**DLCV = (standard rate X standard time for actual output) – (Actual rate X Actual time)**

 **(SR X ST) – ( AR X AT)**

**II. DIRECT LABOUR RATE VARIANCE**

**It is also called wages rate variance or Labour rate variance. It is “the portion of the direct wages variance which is due to the difference between the standard rate of pay specified and actual rate paid”.**

**Formula**

**DLRV = Actual Time X (standard rate X Actual rate)**

 **AT X (AR X AT)**

**III. DIRECT LABOUR EFFICIENCY VARIANCE**

**It is also called Labour time variance. It is accounts for the difference between the total time for which workers are paid and the time effectively used for production as per the standard of effiency.**

**Formula**

**DLEV = Standard Rate X (standard time X Actual time)**

 **S.R X (S.T X AT)**