**Bharath College of Science and Management, Thanjavur-5**

**Dept of BBA**

**MANAGEMENT ACCOUNTING**

**Working Capital**

Capital required for purchase of raw materials and for meeting the day to day expenditure on salaries, wages, rent, advertising etc.,

**Fixed Capital**

Capital required for purchase of fixed Assets like ,building, plant, land, machinery etc,

**Gross Working Capital**

It refers the amount of funds invested in current asset. Working capital is equal to oral current asset.

**Net working Capital**

The excess of current assets over current liabilities.( current assets –current liabilities = W/C)

**Material Variances**

1. Material Cost Variance = (SQ x SP) – (AQ x AP)

2. Material Price Variance = (SP – AP) AQ

3. Material Usage Variance = (SQ – AQ) SP

4. Material Mix Variance = (RSQ – AQ) SP

RSQ = Standard Quantity

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x Total Actual Quantity

Total Standard quantity

5. Material Sub-Usage Variance = (SQ – RSQ) SP

Material yield variance = (Standard Loss on actual input – Actual Loss) Average SP

Average Standard Price per unit = Total Standard Cost

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Standard Output

Abbreviations Used

SQ = Standard Quantity

AQ = Actual Quantity

RSQ = Revised Standard Quantity

SP = Standard Price

AP = Actual Price

**Problem 1**

Product x requires 20kgs. Of material at Rs.4 per kg. The actual consumption of material for the manufacturing of product X came to 24 kgs. Of material at Rs.4.50per kg. Calculate

(i) Material Cost Variance (ii) Material Price Variance and (iii) Material Usage Variance.

**Solution:**

1. Material Cost Variance = Standard Cost – Actual Cost

= (SQ x SP) – (AQ x AP)

= (20 x 4) – 24 x 4.50)

= 80 – 108 = Rs.28 Adverse

2 Material Price Variance = (SP – AP) AQ

= (4-4.50)24 = Rs. 12 Adverse

3. Material Usage Variance = (SQ-AQ) SP

= (20 – 24) 4 = Rs 16 Adverse

**Check**

Material Cost Variance = Material Price Variance + Material Usage Variance

Rs.28 = Rs.12 + Rs.16

**Problem 2**

The standard material and standard cost per kg. of material required for the production of one unit of product A is as follows:

Material – 5kgs

Standard Price – Rs 5 per kg

The actual production and related material data are as follows.

400 units of Product A

Material used 2,200 kgs.

Price of Material Rs. 4.50 per kg.

Calculate (1) Material Cost Variance

(2) Material Usage Variance

(3) Material Price Variance

**Solution**

1. Material Cost Variance = (SQ x SP) – AQ x AP)

SQ refers to standard quantity for actual production

Standard quantity for 1 unit = 5kgs

Standard quantity for actual production of 400 units

= 400 x 5 = 2000kgs

Material Cost variance = (2000 x 5) – (2200 x 4.50)

= 10,000 – 9900 = Rs 100 Favouable

2. Material price variance = (SP – AP) AQ

= ( 5 – 4.50) 2200 = Rs. 1100 Favouable

3. Material Usage variance = (SQ-AQ) SP

= (2000 – 2200) 5 = Rs. 1,000Adverse

**Problem 3**

The standard time and rate for unit component are given below:

Standard hours 20

Standard rate Rs. 5 per hour

Actual data and related information are as under

Actual production 1000 units : Actual hours 20,500 hours

Actual rate per hour = Rs.4.80

Calculate (i) Labor cost variance (ii) Labor efficiency variance (iii) Labor rate variance

**Solution**

1. Labour cost variance = (SH x SR) – (AH x AR)

Standard hours for actual production = 20 x 1000u = 20,000

Labour Cost Variance = (20,000 x 5) – (20,500 x 4.80)

= 1,00,000 – 98,400 = Rs.1,600(F)

2. Labour Rate Variance = (SR – AR) AH

= (5 – 4.80) 20,500 = Rs 4,100 (F)

3. Labour Efficiency variance = (SH –AH) SR

= (20,000 – 20,500) 5 = 2,500 (A)

Check : Labour Cost Variance = Labour Variance + Labour Efficiency Variance

1,600 (F) = 4,100(F) + 2,500 (A)

**Problem 4**

From the following information compute material variances

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Quantity Standard Total Quantity Actual Total

(Kilos) Unit Rs. (Kilos) Unit

Price Price

Rs. Rs.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Material A 10 2 20 5 3 15

Material B 20 3 60 10 6 60

Material C 20 6 120 15 5 75

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Total 50 4 200 30 5 150

**Solution**

1. Material Cost Variance = (SQ x SP) – (AQ x AP)

A : (10 x 2) – (5 x 3)

20 - 15 = 5(F)

B : (20 x 3) – (10 x 6)

: 60 - 60 = 0

C : (20 x 6) - (15 x 5)

120 - 75 = 45(F)

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Total Material Cost Variance 50 (F)

2. Material Price Variance = (SP – AP) AQ

A : (2 - 3) 5 = 5(A)

B : (3 - 6) 10 = 30(A)

C : (6 - 5) 15 = 15(F)

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Total Material Price Variance 20 (A)

3. Material Usage Variance = (SQ – AQ) SP

A : (10-5) 2 = 10 (F)

B : (20-10) 3 = 30(F)

C : (20-15) 6 = 30(F)

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Total Material Usage Variance = 70(F)