CHAPTER No.2 · ESTIMATION OF WORKING CAPITAL
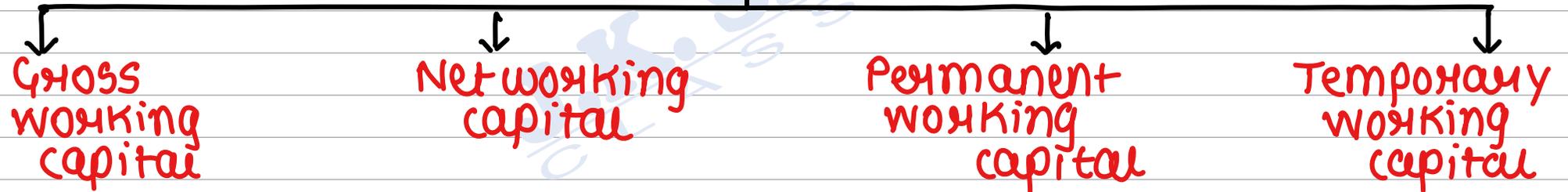
Points to be discussed :

→ Introduction

→ Types of working capital

→ Operating cycle

→ Estimation of working capital

→ Types of Current Asset policies

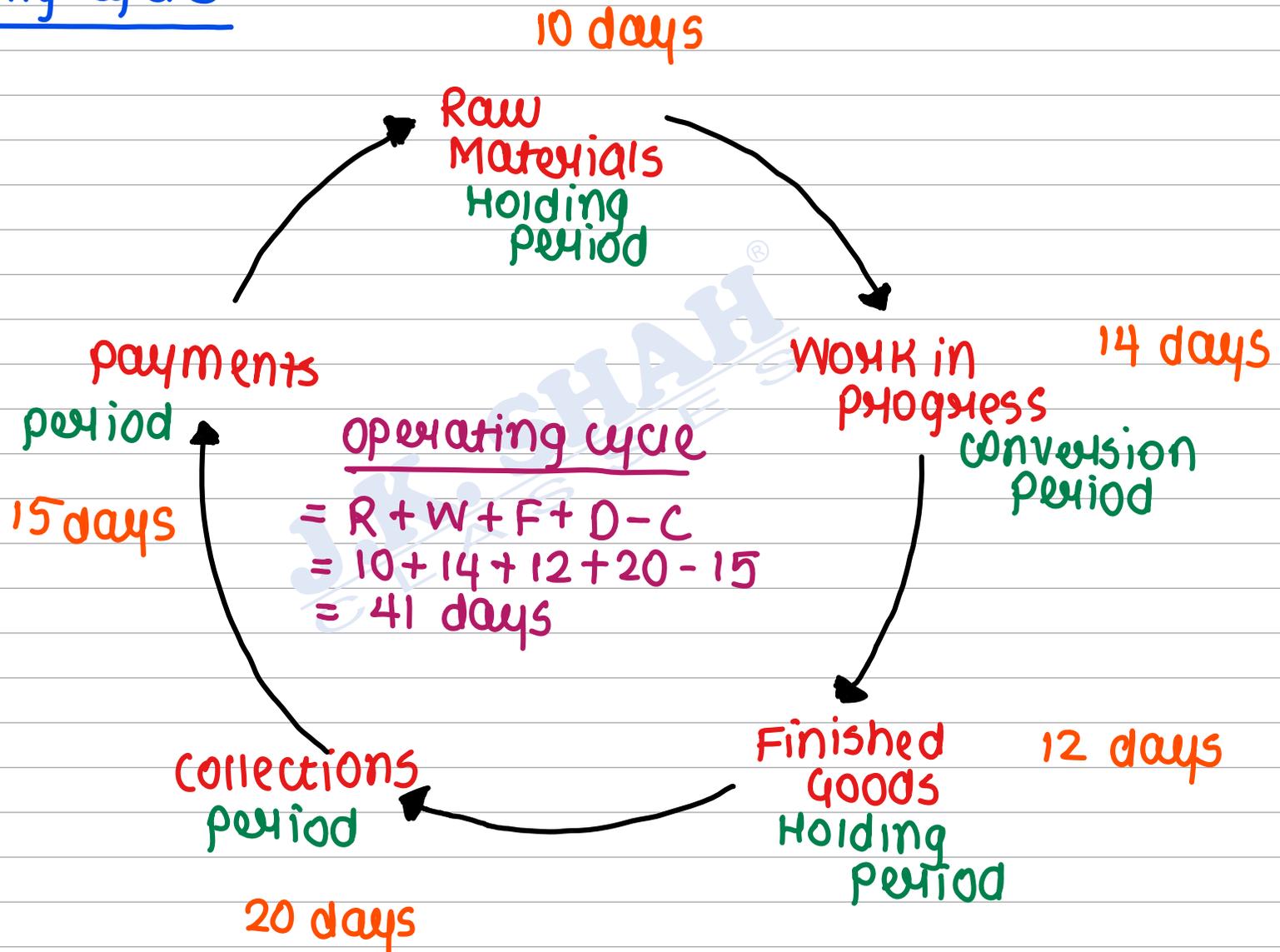→ Maximum permissible Bank Finance.

→ Introduction

Working capital = Current Assets − Current Liabilities

Current Ratio = $\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

→ Types of working capital

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  ┌────────────┬───────────┴──────────┬──────────────┐
  ↓            ↓                       ↓              ↓
Gross      Net working           Permanent       Temporary
Working     capital              working         working
capital                          capital         capital
```

→ **Operating cycle**

10 days

Raw Materials
Holding Period

14 days

Work in Progress
Conversion Period

Payments Period

15 days

Operating cycle
= R + W + F + D − C
= 10 + 14 + 12 + 20 − 15
= 41 days

Finished Goods Holding Period

12 days

Collections Period

20 days

Calculation of Factors of Operating cycle

1. **Raw Materials Holding period**

$$= \frac{\text{Average stock of Raw Materials}}{\text{Raw Materials consumed}} \times 365/360/52/12$$

2. **Work in progress Conversion period**

$$= \frac{\text{Average stock of Work in progress}}{\text{Cost of production}} \times 365/360/52/12$$

3. **Finished Goods Holding period**

$$= \frac{\text{Average stock of Finished Goods}}{\text{Cost of Goods sold}} \times 365/360/52/12$$

4   Debtors collection period

$$= \frac{\text{Average Debtors}}{\text{Net credit sales}} \times 365/360/52/12$$

5   Creditors payment period

$$= \frac{\text{Average creditors}}{\text{Net credit purchases}} \times 365/360/52/12$$

→ **Estimation of working capital**

Income statement

Raw Materials consumed	XX
Direct Labour	XX
Production Overheads	XX
Factory Cost	XX
Add: Opening Stock of WIP	XX
Less: Closing Stock of WIP	XX
Cost of Production	XX
Add: Opening Stock of FG	XX
Less: Closing Stock of FG	XX
Cost of Goods Sold	XX

Office & administrative overheads	XX
selling & distribution overheads	XX
Cost of sales	XX
Add : profits	XX
Sales	XX

Statement of Estimation of working capital

CURRENT ASSETS

1. Inventories
   - Raw Materials — XX
   - Work in progress — XX
   - Finished Goods — XX   XX

2. Debtors   XX

3. cash and Bank balances   XX

4. Other Current Assets   XX

GROSS WORKING CAPITAL   XXX

(−) CURRENT LIABILITIES

1. Creditors   XX

2. Outstanding Expenses   XX

3. Other Current Liabilities   XX   − XXX

NET WORKING CAPITAL   XXX

Add : Safety margin

Assumptions

1. All the operating activities accrue evenly during the period.

2. In absence of information with respect to opening stock, it is assumed to be the same as closing stock.
This means —

   • Raw Materials consumed = Raw Materials purchases

   • Factory cost = cost of production

   • cost of production = cost of Goods sold

3. If opening stock and closing stock is not same, then —

   • R.M consumed = opening stock + purchases − closing stock
   of RM   of RM.

   • cost of production = opening stock + Factory − closing stock
   of WIP   cost   of WIP

   • cost of Goods sold = opening stock + cost of − closing stock
   of FG   production   of FG

Methods to Estimate Working Capital

Cash Cost Method
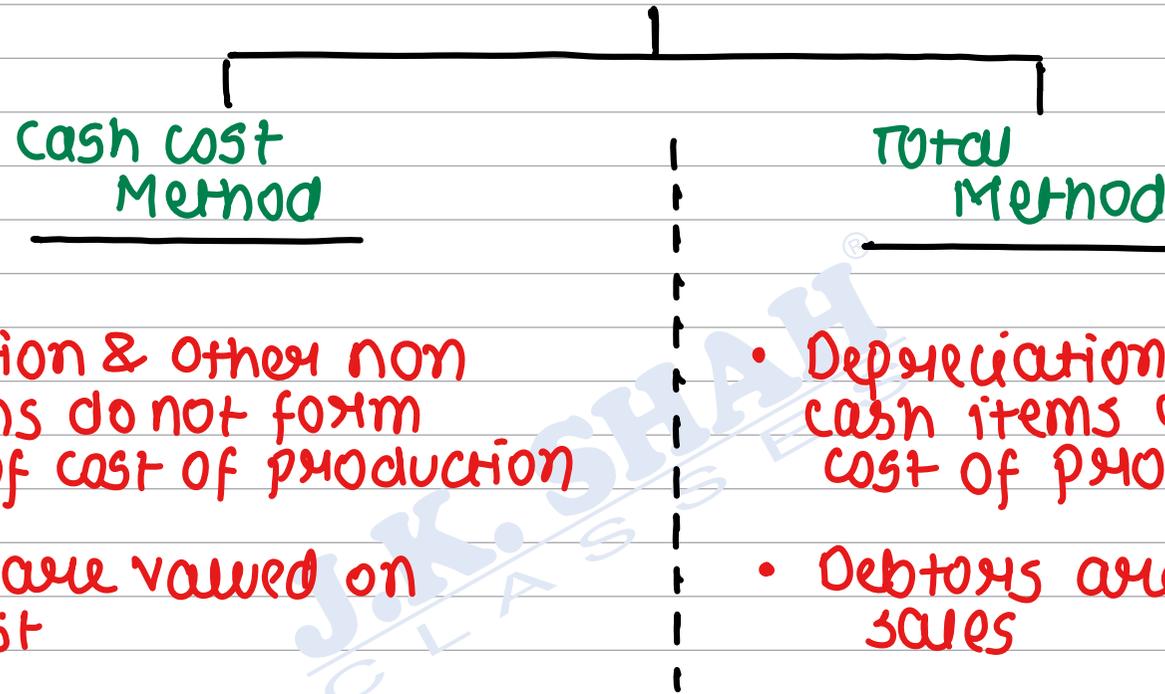
- Depreciation & other non cash items do not form a part of cost of production

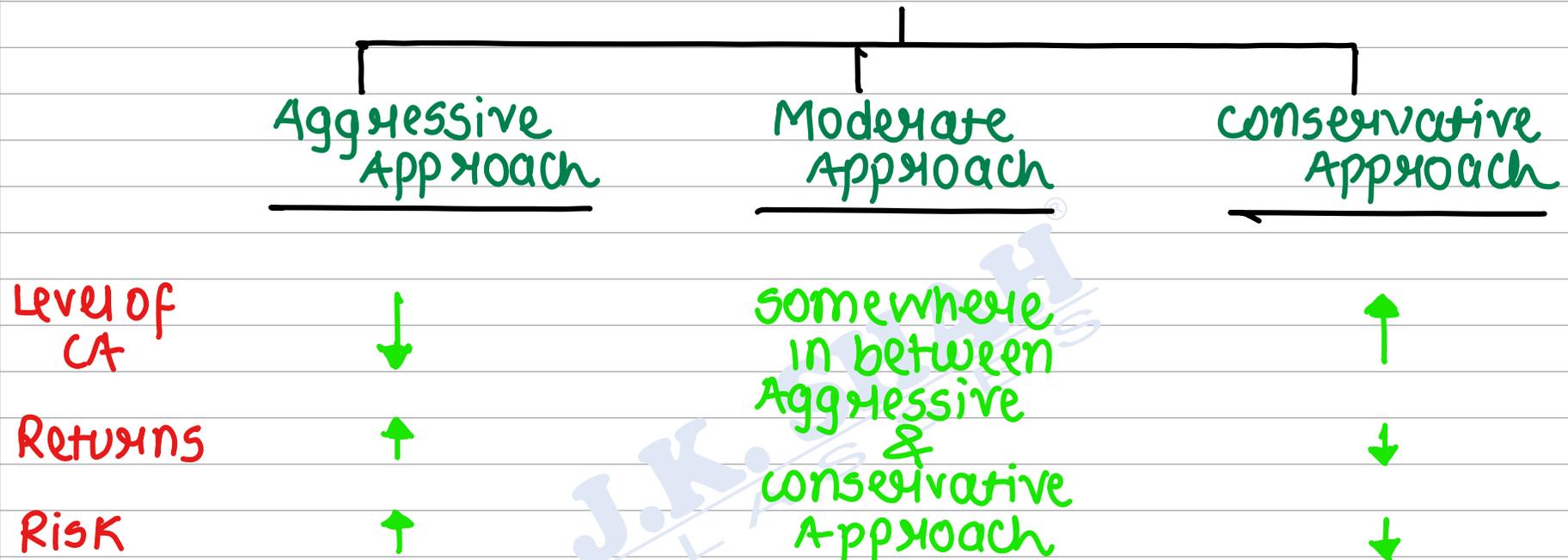- Debtors are valued on Total cost

Total Method

- Depreciation & other non cash items are included in cost of production

- Debtors are valued on sales

Valuation summary

Factor	Valued on...
1. Raw Materials stock	Raw Materials consumed
2. Work in progress stock	100% of Raw Materials + 50% of Labour * + 50% of Overheads *

* when no completion stage is given in question. However, if completion stage is given, then that percentage to be applied on Labour and Overheads

3. Finished Goods stock	Total cost of production
4. Debtors	Sales / Total cost

Sales → Total Method

Total cost → Cash cost approach

5. Creditors	Raw Materials purchases
6. Outstanding Expense	That particular expense

NOTE : In all the above items, non cash items like depreciation will be ignored if we follow cash cost approach.

→ <u>Current Assets Policies</u>

	Aggressive Approach	Moderate Approach	Conservative Approach
Level of CA	↓	Somewhere in between Aggressive & Conservative Approach	↑
Returns	↑		↓
Risk	↑		↓

→ **Maximum permissible Bank Finance**

Tandon committee Norms

Method 1 :   MPBF = 75% of Net working capital i.e
              = 75% of $(CA - CL)$

Method 2 :   MPBF = $\left[\text{75\% of Gross working capital}\right]$ - Current Liabilities
              = $(75\% \text{ of } CA) - CL$

Method 3 :   MPBF = $\left[\text{75\% of}\left(\begin{array}{c}\text{Current} \\ \text{Assets}\end{array} - \begin{array}{c}\text{Core current} \\ \text{Assets}\end{array}\right)\right]$ - Current Liabilities
              = $\left[\text{75\% of}(CA - CCA)\right] - CL$

—— x —— x —— x —— x —— x —— x —— x