

AS 2 - Inventories

1] Definition

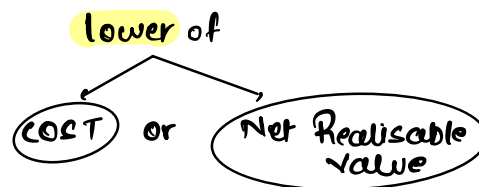
Inventories → Assets which are

- Held for sale in ordinary course of Business (**Finished Goods**)
- Used in the process of production for such sale (**work in progress**)
- In the form of materials to be consumed in production process (**Raw materials**)

2. Scope

- Following are excluded from the scope of AS 2:
 - i) **Work in progress** arising under construction contracts (covered under AS 7)
 → If Bldg ready (Plak ready) FG (AS 2) → Buni hona chahiye
 - ii) Share, Debentures & other financial instruments held as stock in trade (covered under **AS 13**)
 - iii) Producers of livestock, agricultural & forest products
 → (Ind AS 41 No AS)
 - iv) Mineral oils, ores & gases
 → (Ind AS 106 No AS)

3] Measurement



eg: Inventory ^{Books} (FG) → Cost → ₹100
Net Sell Price → NRV → **₹90** ↓

4] Cost of Inventories

⑥ Cost of Purchase of Raw Materials / Finished Goods

→ Purchase Price (less Trade discounts)

→ Duties & **Non-Refundable Tax** (If taxes are refundable they will not form part of cost of Inventory)

→ All Directly Attributable Expenses (eg: Handling cost, Freight/Transport Exp, Insurance of Purchase, Brokerage/ Commission paid to Buying Agent etc.)
(Basically all direct expenses which are necessary to bringing inventory in present location & condition)

(RM se FR mein convert karne ka kharcha)

⑥ Cost of Conversion

→ Direct Cost (Direct Material, Direct Labour, Direct Expenses)

→ Variable Overheads (Based on Actual capacity) → eg: Book →

→ **Fixed Overheads** (Based on Normal capacity or Actual capacity whichever is higher)

eg: Factory Rent → ₹ 1,00,000
↓
Production kitna bhi karo
rent will be still 1,00,000

↓
This is to
calculate Fixed
cost p.u.

1000 Books

2000 Books

cost
↓
Sticker
Ak Hai
Bhai
Sachhi.
1000 Sticker
200 Sticker.

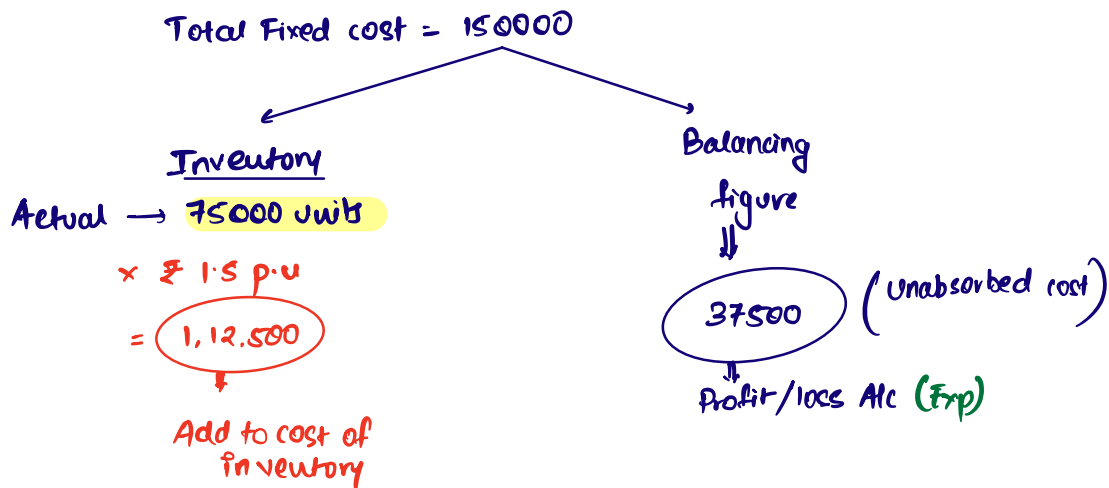
Eg: Fixed overheads (Allocation to cost of Inventory)

① Jatin Ltd (Books manufacturing) → Normal capacity → 1,00,000 units
→ Actual capacity → 75,000 units } Based on Normal capacity.

Fixed cost incurred → ₹ 150,000
(Factory Rent)

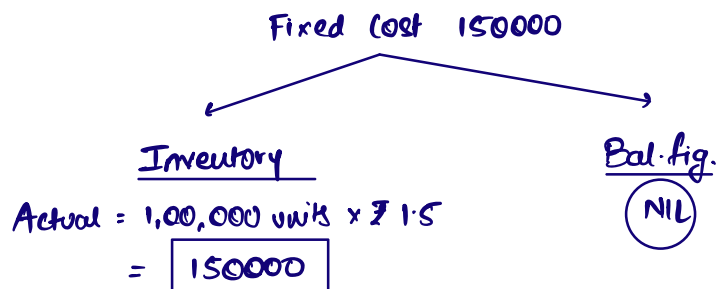
step ① $\text{Fixed cost p.u.} = \frac{\text{₹}150000}{100000 \text{ units}}$
 $= \text{₹}1.5 \text{ p.u.}$

step ②



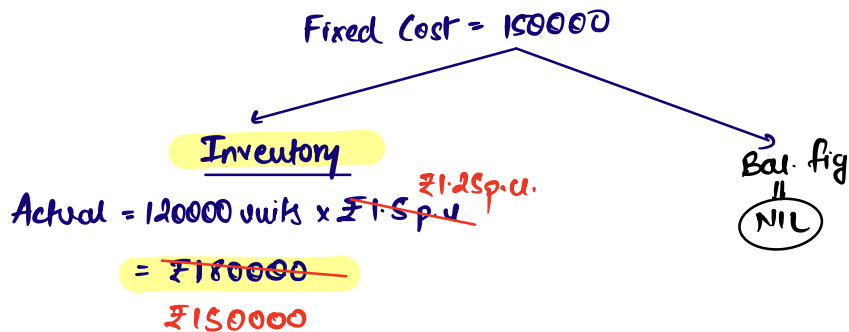
- ② Factory Rent (Fixed OH) = 150000 → (Based on Normal capacity)
 Normal capacity = 1,00,000 units
 Actual capacity = 1,00,000 units

$\text{Fixed cost p.u.} = \frac{\text{₹}150000}{100000 \text{ units}} = \text{₹}1.5 \text{ p.u.}$



③ Fixed OH = £150,000 → Based on ~~Normal~~ capacity
 Normal capacity = 1,00,000 units.
 Actual capacity = 1,20,000 units

$$\text{Fixed cost p.u.} = \frac{150000}{\frac{100000 \text{ units}}{120000 \text{ units}}} = \cancel{£15 \text{ p.u.}} \quad £1.25 \text{ p.u.}$$



Eg ② Q.B (Pg 4.16)

Fixed OH = 18 lakhs

Normal capacity = 1,00,000 units

Case (A) Actual capacity = 1,00,000 units

$$\text{Fixed Cost p.u.} = \frac{18 \text{ L}}{1 \text{ L units}}$$

$$= ₹18 \text{ p.u.}$$

Total Fixed Cost = 18 lakhs

i) Allocate to Inventory = Actual Prodⁿ (1,00,000 units x ₹18) = ₹18L

ii) Bal trf to P/L = (NIL).

Case (B): Actual capacity = 90,000 units

$$\begin{aligned}\text{Fixed cost p.u.} &= \frac{180}{1.2 \text{ units}} \\ &= \text{£18 p.u.}\end{aligned}$$

Total fixed cost p.u. = 18,00,000

i) Allocate of Inventory = Actual Production (90000 units x £18) = 16,20,000

ii) Bal trf to PL = 180000 (Exp)
(180 - 16.2)

Case C: Actual Production = 1.2 units

$$\text{Fixed cost p.u.} = \frac{180}{\frac{1.2 \text{ units}}{1.2 \text{ units}}} = \text{£15 p.u.} \quad \left(\begin{array}{l} \text{Divide by normal or actual whichever} \\ \text{is higher} \end{array} \right)$$

Total fixed cost p.u. = 18,00,000

i) Allocate of Inventory = Actual Production (1.2 units x £15) = 18,00,000

ii) Bal trf to PL = NIL

c) Exclusions from cost of Inventories

i) * Abnormal wastage

ii) Storage cost (But if storage is a part of production, then we will consider storage cost in cost of Inventories eg: wines, pickles)

Inventory Banne ke Road ka cost

iii) Administrative Overheads eg. Salary to employees who are not involved in manufacturing

iv) Selling & Distribution Overheads (eg. Advt & market)

v) Interest charges (eg: laptop)

Inka storage is part of manufacturing
∴ Add to cost of Inventory

Example

Day ① 1 lakh × 10 laptop = ₹10L
After 1 year payment = ₹11L } 1 lakh for interest

Inventory cost ~~is~~ ₹10L

₹1L → For 1 year credit period (Interest) → PIL

Do Not add to cost of Inventory.

1000 × 5% = 50 Books

* Abnormal wastage

Eg: 1000 Books purchased @ ₹150 p.u. = ₹150000

Normal loss 5%

Out of 1000 Books only 920 were in good condition.

Total loss = 80 Books
 → Normal loss = 50 Books → (1000 × 5%)
 → Abnormal loss = 30 Books → koi dikkat nahi hai
 } → PIL

Step ①

We have to compute revised p.u. cost of Books after considering normal loss

$$= \frac{\text{Total cost}}{\text{Total units (-) Normal loss}} = \frac{150000}{950 \text{ units}} = 157.89 \text{ p.u.}$$

Step ②

Actual units 920 units $\times$ ₹ 157.89 p.u. = 145259 → Add to cost to Inventory

Abnormal loss 30 units $\times$ ₹ 157.89 p.u. = 4737 → Abnormal loss (PL)

units
950 units

149995
or
150000 approx

~~costs~~

Eg ② Milk 5000 litres @ ₹ 50 per litre. =

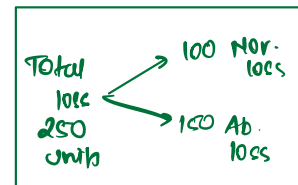
Normal loss 2%

Milk actually received is only 4750 litres.

Calculate Amt to be allocated to cost of Inventory & also calculate Amt of

Abnormal loss trf to PL

Soln: Revised cost p.u. = $\frac{250000}{4900 \text{ litres}}$ = ₹ 51.02 p.u.



i) Calc of Amt to be allocated to Inventory (Actual = 4750 litres $\times$ 51.02 p.u. = 242347)

ii) PL → Abnormal loss = $\frac{150 \text{ litres} \times 51.02 \text{ p.u.}}{4900 \text{ litres}} = \frac{7653}{250000}$

i) Fixed OH allocation & Abnormal loss calculation → Are 2 diff concepts.

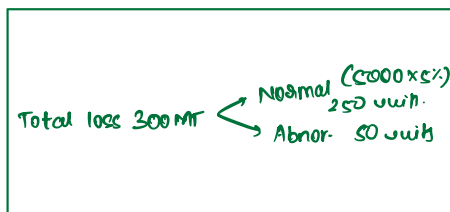
2) If there is no abnormal loss, then no need to do above calculation, full Amount paid will be allocated to cost of Inventory.

issue 3 (Pg 4.1)

Total units = 5000 MT @ £1000 p.u.

Normal loss = 5%

Total wastage = 300 MT



$$\text{Revised cost p.u.} = \frac{\text{£50,00,000}}{4750 \text{ MT}} \left[(5000 - 5\% \text{ (Normal loss)}) \right]$$

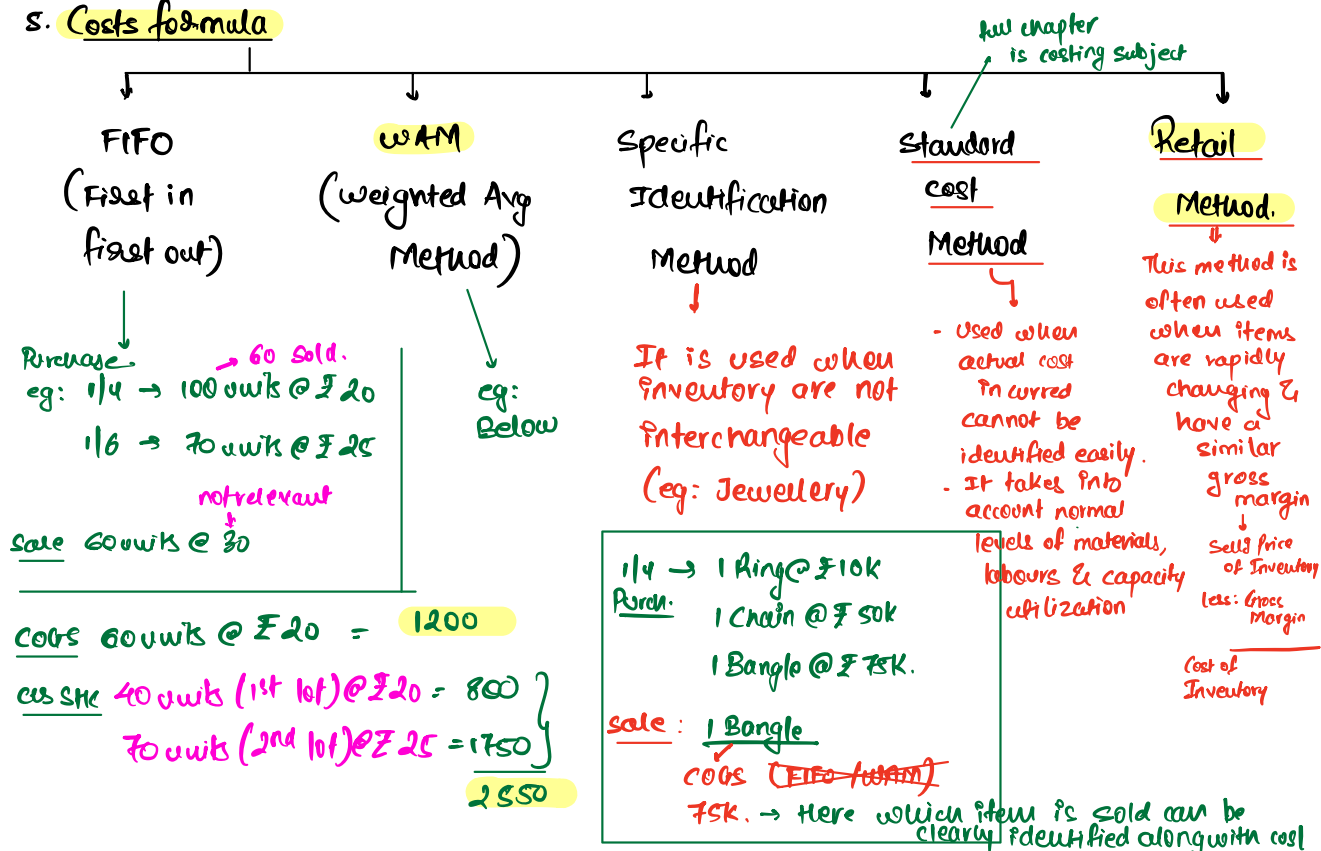
$$= \text{£1052.63 p.u.}$$

i) Amount allocated to cost of Inventory = (Actual Prod) = 4700 MT x 1052.63 p.u. = 4947368

ii) Abnormal loss

$$\frac{50 \text{ MT}}{4750 \text{ MT}} \times 1052.63 \text{ p.u.} = \frac{52632}{50,00,000 \text{ approx}}$$

5. Costs formula



In exam always check what is asked → COGS or CLS Stk

COGS → Jo inventory becha uska cost
CLS Stk → Jo inventory pada hua hai uska cost

eg: On weighted Avg

↓
Purchase

eg: 1/4 → 100 units @ £20 = 2000

1/6 → 70 units @ £25 = 1750

3750 → Avg Cost p.u = $\frac{3750}{170 \text{ units}} = £22.06 \text{ p.u.}$

Sale 60 units @ 30

COGS → 60 units × £22.06 = 1324

CLS Stk → 110 units × £22.06 = 2426

Note: LIFO is prohibited under AS 2.

6. NRV (Net Realisable value) 

A] FG → (NRV)

Estimated Selling Price

(-) Estimated cost to make the sale (eg. Commission, Brokerage, Packaging, Delivery cost of selling etc.)

NRV of FG

B] WIP (NRV)

Estimated selling Price of FG xx

(-) Estimate cost of completion (xx)

(-) Estimated cost to make the sale (xx)

NRV of WIP

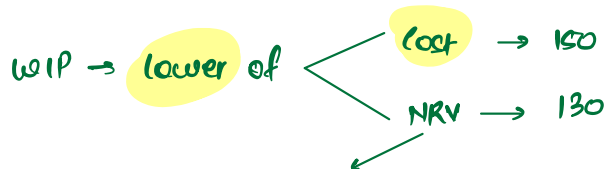
eg: WIP

Cost incurred till date 150 ✓

Selling price of FG 250

Selling cost 20

Cost yet to be incurred for completion = 100



S.P of FG 250
(-) Cost of completion (100)
(-) Selling cost (20)
130

③ Raw Material (~~NRV~~) → we have purchased Raw material to consume in FG & not to Sale.

↓
Valuation of Raw material is Dependent on FG

↓
If FG is sold at cost or above cost

↓
Measure RM @ Cost

↓
If FG is sold Below Cost

↓
Measure RM at Replacement cost

Replacement cost is the amount that an entity would have to pay to replace the asset at present time according to its current worth.

eg: FG → Cost 100
NRV 110 }

RM → Cost 20

Replacement cost

FG is sold above cost ∴ RM @ cost (£ 20)

eg: FG → Cost 100
NRV 90

RM → Cost 20

Replacement cost

FG is sold Below cost ∴ RM @ replacement cost (£ 18)

7. Allocation of cost of Joint Products & By products

i) In case of Joint Products

when cost of conversion of each main products cannot be identified separately, they need to be allocated in sales ratio (Total units $\times$ Selling price p.u.)

ii) In case of Byproduct

- Most By products are immaterial, therefore they are measured at NRV.
- NRV of By product will be deducted from total cost of conversion & after deducting, Net cost of conversion will be allocated to main products.

In ques → sometimes Profit from By product/scrap will also be given. But remember that, we don't need Profit, we need NRV. (Ignore Profit)

eg:

Amul Co.

Butter

Cheese

Cost of Joint Products is to be allocated in total sales ratio (No. of units produced $\times$ Selling Price)

100000 units

$\times ₹ 15 \text{ p.u. (S.P) given}$

Total sales Value 15,00,000

Cost allocation 6,06,667

$\left(9.11 \times \frac{15}{22.5} \right)$

75000 units

$(\times) 10 \text{ p.u. (S.P) given}$

750000

3,03,333

$\left(9.11 \times \frac{7.51}{22.51} \right)$

By product / Scrap.

Additional wastage of Cheese & Butter → Chas (Butter milk)

↓

NRV / Scrap Value

Selling Price	1L
(-) Sell cost (Packaging cost)	10k
NRV of By product	<u>90k</u>

Total cost 10L

(-) NRV of By product (90k)

Net cost 9.11

Butter & Cheese

QPR Extra Ques

In a manufacturing process of Mars Ltd, one by-product BP emerges besides two main products MP1 and MP2 apart from scrap. Details of cost of production process are here under:

Item	Unit	Amount	Output	Closing Stock 31-3-20X1
Raw material	14,500	1,50,000	MP I – 5,000 units	250
Wages		90,000	MP II – 4,000 units	100
Fixed overhead		65,000	BP – 2,000 units	
Variable overhead		50,000		

Average market price of MP1 and MP2 is ₹ 60 per unit and ₹ 50 per unit respectively,

By-product is sold @ ₹ 20 per unit. There is a profit of ₹ 5,000 on sale of by-product after incurring separate processing charges of ₹ 8,000 and packing charges of ₹ 2,000.

₹ 5,000 was realized from sale of scrap.

Required:

Calculate the value of closing stock of MP1 and MP2 as on 31-03-20X1.

Soln:

Total Cost of Main Products

Raw material	150000
Wages	90000
Fixed OH	65000
Var. OH	50000
Total cost	355000

Normal Prodⁿ capacity not given
∴ full fixed OH added to cost.

Less: NRV of By products

BP	(30000)	(2000 units x 20) = 8000 (-) 2000
Scrap (given)	(5000)	
Net cost	320000	

MP I	MP II
5000 units x ₹ 60	4000 units x ₹ 50
= 300000	= 200000

Allocation = 192000
of cost $\left(320000 \times \frac{31}{51}\right)$

÷ No. of units 5000 units

Cost per p.u. ₹ 38.4 p.u.

NRV ₹ 60 p.u.

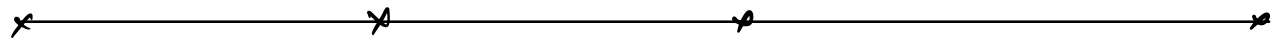
= 128000
 $\left(320000 \times \frac{24}{51}\right)$

÷ 4000 units

Cost ₹ 32 p.u.

NRV ₹ 50 p.u.

Value of stock	Qty	Rate	Total
MP I	250	38.4	9600
MP II	100	32	3200
			<u>12800</u>



AS 2 → 7 hrs → Revise → 3-5 hrs

Bhul gaye

Solution?

→ Revision Video.

→ Youtube

CA Aakash Kauloi

Illus 2

Purchase	40 lakhs	100%
Sold	30 lakhs	75%
CL Stock (Cost)	10 lakhs	25%
(NRV)	9.9 lakhs	

Selling Price 11 lakhs

(-) Sell cost (10%) (1.1 lakhs)

9.9 lakhs

CL Stock (Value) = 9.9 lakhs

Illus 4 - Refer Q. B.

Illus 8

WIP

(a) Cost → 530

(b) NRV

Selling Price of Fr 750

(-) Cost of completion (310)

(-) Cost of sale (Brokerage) (30) $(750 \times 4\%)$

NRV 410

WIP (Cost or NRV) whichever is lower i.e. @ ₹ 410

Ques 1 (LDR)

② Calculation of Material cost per kg.

Purchase Price (20000 kgs x ₹ 110)	22,00,000
Less: GST - Input Tax credit (20000 kgs x ₹ 12)	(2,40,000)
	19,60,000

Add: Freight

1,17,600

Total cost

20,77,600

÷ No. of kgs (after normal loss) (20000 kgs x 98%)

19600 kgs

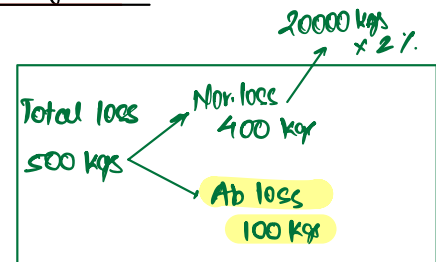
Revised cost p.u.

Material cost per kg → ₹ 106 / kg.

③ Allocation of Material cost

Actual Units = 19500

└ consumed 18000 x 106 = 19,08,000
└ clc stk. 1500 x 106 = 1,59,000



Ab. loss = 100 kgs x ₹ 106 = ₹ 10600 → Trf to P/L

Ques 3

② Cost (Weighted Avg Method)

₹ 108 x 20 units = 2160

₹ 107 x 15 units = 1605

₹ 109 x 30 units = 3270

₹ 107 x 15 units = 1605

Total cost 8640

÷ No. of units 80 units

Avg cost p.u. 108

$$\begin{aligned}\text{CLB Stk units} &= 80 \text{ purchase } (-) 60 \text{ issued} \\ &= 20 \text{ units}\end{aligned}$$

CLB Stk

$$\begin{aligned}\text{i) Cost} &= 20 \text{ units} \times 108 = 2160 \\ \text{ii) NRV} &= 20 \text{ units} \times 107.75 = 2155\end{aligned}$$

CLB Stk will be valued at £ 2155

Ques 4

<u>Value of closing Stock</u>	<u>Qty</u>	<u>Rate</u>	<u>value (Amount) £</u>
i) Raw Material x	1000	440	440000
ii) Finished Goods y	2400	660	1584000
			<u>2024000</u>

Working Note:

i) Raw Material

① Cost

Cost Price	380
(+) Freight	40
(+) unloading	20
Total Cost	<u>440</u>

② Replacement cost 300

ii) Finished Goods

Material consumed	440
Direct labour	120
Variable OH	80
* Fixed OH ($\frac{400000}{20000 \text{ units}}$)	20
Total Cost	<u>660</u>
NRV (Given)	800

FG is sold above cost

∴ RM @ cost

Ques 5 (WQ)

Case (i) When NRV of FG is ₹ 450

	Qty	Rate	Am't (₹)
Raw Material P	600	275 (Cost)	165000
Fin. Good & Q	1500	360 (Cost)	540000
Value of CU Stk			₹ 705000

Case (ii) When NRV of FG is ₹ 340

	Qty	Rate	Am't (₹)
Raw Material P	600	180 (Replacement Cost)	108000
Fin. Good & Q	1500	340 (NRV)	510000
Value of CU Stk			₹ 618000

WN

① Raw Material

Cost Price	250	↗ includes GST
+ GST (Input Tax credit) (20)	230	
Freight	30	
Handling	15	
Cost	275	
Replacement Cost	180	

② FG

Material consumed	250
Direct labour	70
Variable OH	30
* Fixed OH (3L/20k units)	10
Cost	360

i) NRV 450

ii) NRV 340

Normal capacity 20k

Actual 25k

↓

p.u. nikalne ke liye

we divide by

whichever is higher.

Ques 8

According to AS-2 (Inventories), inventory shall be valued at cost or NRV whichever is lower.

Value of closing stock

	Qty	Rate	Amount
Product A (FG)	200	90	18000
Product B (FG)	800	70	56000
			<u>74000</u>

WN

i) Product A

Material	40	
wages	30	
OH	20	
	<u>90</u>	
Cost	90	
NRV	99	↓ (110-10%)

ii) Product B

Materials	45	
wages	35	
	<u>80</u>	
Cost	80	
NRV	150 70	↓

Ques 9 to 10 → Refer Q. B

Ques 11 (WR)

Value of closing stock @ cost (Given)	450000
less: Adjustment for 100 coats (WN1) shirts	(20000)
Value of clb stk	430000

WN

① 100 coats

Cost (100 x 2200) 220000

NRV (100 x 2000) 200000

Adjustment to be made in clb stk 20000

} → 450000 already includes inventory @ cost of 220000, But as NRV is lower, we will reduce the stk by £ 20000

② Shirts

Cost 50000
NRV 55000

student mistake

(-) 10% Comm

55000

5500

49500

} incorrect 55000 is not sell price but directly NRV is given.

No adjustment required in clb stk as Cost is lower than NRV & in our clb stk we have included at cost only

Ques 12 (108)

- i] As per AS-2 (Inventories), Inventories of FG will be valued at cost or NRV whichever is lower.
- ii] Inventories of WIP will be valued at cost or NRV whichever is lower, But to find NRV of WIP we take S.P of F.G (-) Cost of completion (-) ^{cost of sale}
- iii] Inventories of RM will be valued at cost if FG is sold above or at cost. & RM will be valued at replacement cost if FG is sold below cost.

	Qty	Rate	Total
Raw Materials X	900	80 (Repl cost)	72000
WIP	400	216 (NRV)	86400
Finished Goods P	800	266 (NRV)	212800
			<u>371200</u>

WN

① Raw Material

Cost 100
Replac. cost 80 → as FG is sold Below cost

② WIP

Cost 245

NRV

S.P of FG 280
(-) Cost of comp. (50)
(-) Cost of sale (14) $(280 \times 5\%)$

NRV of WIP 216

③ F.G

Cost 295

NRV

S.P of FG 280

(-) Cost of sale (14) → 266

Ques 7 (LDR)

$$\text{Opn} + \text{Purch} (-) \text{cls} = \text{COGS} / \text{RM consumed.}$$

Particulars	£
1] Raw Materials Consumed (Opn + Purch (-) cls)	1,00,000
(1100 kgs + 10000 kgs (-) 900 kgs) = 10200 kgs × £ 10 p.u.	102000
(100000 / 10000 kgs) purchased RM	
2] Labour	76500
3] Fixed OH (WN 2)	£ 1000
Total Cost of F.G	229500
÷ FG Prod ⁿ (WN 1)	10200 kgs
whichever is lower { Cost p.u. of FG	£ 22.5 p.u.
NRV of FG	£ 20 p.u. ↓

WN 1 Actual Prodⁿ of FG (kgs)

$$\text{Opn} + \text{Purch} (-) \text{cls} = \text{COGS}$$

$$1000 \text{ kgs} + ? (-) 1200 \text{ kgs} = 10000 \text{ kgs}$$

$$\begin{aligned} \text{Prod}^n &= 10000 \text{ kgs} - 1000 \text{ kgs} + 1200 \text{ kgs} \\ &= 10200 \text{ kgs} \end{aligned}$$

$$\text{WN 2 Fixed OH } \frac{75000}{15000 \text{ kgs}} = £ 5 \text{ p.u.}$$

Divide by → 15000 kgs
Normal → 15000
Actual Prodⁿ → 10200 ↑ whichever is higher

$$£ 75000 \begin{cases} \text{Actual Prod}^n (10200 \times 5) = £ 51000 \\ \text{Bal fig} \rightarrow 24000 \text{ (PL)} \end{cases}$$

Value of cu stk	Qty	Rate	Total
1) Finished Goods	1200	20 (NRV)	24000
2) Raw Materials	900	9.5 (Replac. cost)	8550
✓ FG is sold Below cost ∴ RM @ Replac. cost			32550

Ques 14 (LDR) → Co. follows FIFO

Given: Opn → 10,000 litres @ £92 per litre → lot 1

Purch (1st June) → 20,000 litres @ £90 per litre → lot 2

Purch (30th June) → 10,000 litres @ £95 per litre → lot 3

CLB stk → 13,000 litres

lot 3 → 10,000 litres
lot 2 → 3,000 litres.

i) Value of CLB Inventory as on 30th June

$$\begin{aligned}
 10,000 \text{ litres} \times £95/\text{litre} &= 950,000 \\
 3,000 \text{ litres} \times £90/\text{litre} &= 270,000 \\
 \hline
 &12,20,000
 \end{aligned}$$

ii) Cost of Goods sold (Opn + Purch (-) CLB = costs)

$$\begin{aligned}
 \text{Opn (10,000 litres} \times £92) &920,000 \\
 \text{Purchases (20,000 litres} \times £90 &18,00,000 \\
 \quad 10,000 \text{ litres} \times £95) &950,000 \\
 \text{(-) CLB (computed above)} &(12,20,000) \\
 \hline
 \text{COGS} &24,50,000
 \end{aligned}$$

iii) Profit / loss for the month

Sales (Given)	30,40,000
(-) COGS (Computed above)	(24,50,000)
Gross Profit	590000
(-) Gen OH	(400000)
Net Profit	190000

Ques 16

i) ^{LOR} Value of clc stk $(\text{Op}^n + \text{Purch} - ? = \text{COGS})$

Opⁿ stock = 20000

(+) Purchases = 147000

(-) ^{*} Cost of Goods sold = (140000) →

Clc Inventory 27000

C	+	P	=	S
100	+	10	=	110
?			=	154000
140000				

ii) Value of clc stk (Chairs)

Cost (250 chairs x ₹ 300) 75000

NRV (250 chairs x ₹ 280) 70000

↓
(400 x 70%)

lower of cost or NRV i.e. 70,000

Ques 17

<u>Value of Computer (per unit)</u>	<u>(₹ in lakhs)</u>
Materials	400
(+) Direct labour	250
(+) Variable Production Overheads	150
(+) Fixed Prod ⁿ OH (290 - 100)	190
↓ Interest	
Total cost	<u>990</u>
÷ No. of computers	<u>550</u>
Cost per computer	1.8 per computer