3 ACCOUNTING STANDARD – 2 VALUATION OF INVENTORIES

Quote:

"One who takes all pains will enjoy all pleasures"

1. DEFINITION OF INVENTORY

Inventories are **Assets:**

(a) Held for sale in the ordinary course of business (Finished Goods)

(b) In the process of Production for Such Sale (WIP) or

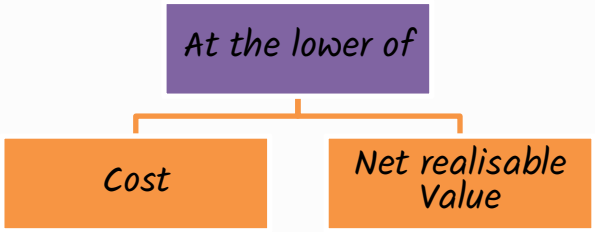
(c) In the form of materials or supplies to be consumed in the production process or in the rendering of services (Raw Material).

2. NON - APPLICABILITY of AS 2

AS-2 is not applicable to following cases.

- Work in process in the construction contract business including, directly related to service contract (AS 7)
- Any financial instruments held as stock in trade which includes shares, debentures, bonds etc.
- Other inventories like livestock, agricultural product and forest product, natural gases and mineral oils etc.
- Work in progress in the business of banking, consulting and service business. That means it includes incomplete consulting service, merchant banking service and medical service in process.

3. MEASUREMENT OF INVENTORY AT BS DATE



Note: If nature of Inventory is agriculture **Crops or Minerals**, then these can be measured **at NRV only** if sale is assured & No risk of failure to sell is there.

4. NET REALISABLE VALUE

- NRV is the Estimated Value.
- The actual transaction price (i.e. customer order price or sale price) after the balance sheet date could be the best available evidence to identify NRV of Finished Goods or Stock in Trade.

In Respect of Finished goods:

Normal selling price of the Finished Goods	XXX
Less - Estimated Expenditure to sale such goods	XXX
Net Realisable Value	XXX

In Respect of WIP:

Normal selling price of the Finished Goods	XXX
Less - Estimated Expenditure to sale such goods	XXX
Less – Estimated further Cost to Make Finished Goods	XXX
Net Realisable Value of WIP	XXX

Measurement of Raw Material:

If Finished goods sold at Cost or Above	If Finished goods sold at below Cost
Estimated Realisable value of Raw material and supplies is considered more than cost. Therefore, Raw Material should be measured at Cost.	Estimated Realisable value of Raw material or supplies may be less than Cost. Therefore, Raw Material should be measured at Replacement Cost or Original Cost whichever is Lower.

Note: - If Some Quantity of Inventory is promised to be sold under the customer order, then NRV of that portion of inventory shall be the Agreed Order Value and NRV of remaining portion shall be general selling price.

Example 1:

Computers and laptops on 31/03/20X1:- 150 units

Normal Selling Price:- Rs.1,20.000/- per unit

On 30/04/20X1, customer order for supply of 100 units @ Rs.95000/-per unit

Calculate the NRV of total 150 units.

Solution: -

Sr. No.	Particulars	Amounts
1	100 units X 95,000	9,50,000
2	50 units X 1,20,000	60,00,000
	Total NRV	**1,55,00,000**

Example 2:

Cost of a partly finished unit at the end of 20X1 – X2 is Rs. 150. The unit can be finished next year by a further expenditure of Rs. 100. The finished unit can be sold at Rs. 250, subject to payment of 4% brokerage on selling price. Assume that the partly finished unit cannot be sold in semi-finished form and its NRV is zero without processing it further.

The value of inventory will be determined as bellow:

	Rs.
Net selling price	250
Less: Estimated cost of completion	(100)
	150
Less: Brokerage (4% of 250)	(10)
Net Realisable Value	140
Cost of inventory	150
Value of inventory (Lower of cost and net realisable value)	140

5. COST OF INVENTORY

There can be three types of cost are included in the inventory which are as follow.

1. PURCHASE COST:

- Invoice price at which goods are purchased
- Duties and taxes paid
- Transport, Handling and Freight inward
- Any other expenditure directly relating to acquiring goods or services

Above cost should be reduced by following:

- Duties and taxes received or receivable back from the tax authority
- Trade discount
- Rebate
- Duty drawback

Note :-

- Primary packing charges of material is included in cost.
- Secondary packing and publicity charges of material is recorded as Selling expense in Statement of P&L

2. COST OF CONVERSION (Labour + Production Overhead)

- Direct Material, Labour and other direct expense.
- Plus **a systematic allocation of fixed and variable production overheads** that are incurred in converting materials into finished goods.

Following things should be considered for conversion cost of the inventory.

(a) FIXED PRODUCTION OVERHEAD –

For example – **depreciation and maintenance of factory building.**

Allocation of fixed expense should be made on the bases of normal capacity

If production levels are abnormally low	Unallocated overheads are recognized as an expense (P&L)
If production levels are abnormally high	Amount of Fixed O/H allocated to each unit is decreased so that inventory should not be measured above cost.

(b) VARIABLE OVERHEAD –

Variable production overheads are allocated to each unit of production based on the actual use of the production facilities.

3. OTHER COST:

It includes any other expenditure incurred to bring inventory in the present location and condition.

For eg. Transportation cost from factory to warehouse for storage of goods.

But rent for such warehouse is not other cost & not a part of cost measurement.

Exclusion in Cost of Inventory – But it should not include abnormal wastage relating to material and labour, storage cost, administrative expenses & selling and distribution expenses, finance element in case of deferred settlement.

Example 3 on allocation of Overheads:

Pluto ltd. has a plant with the normal capacity to produce 5,00,000 unit of a product per annum and the expected fixed overhead is Rs. 15,00,000. Fixed overhead on the basis of normal capacity is Rs. 3 per unit (15,00,000/5,00,000).

Case 1:

Actual production is 5,00,000 units. Fixed overhead on the basis of normal capacity and actual overhead will lead to same figure of Rs. 15,00,000. Therefore, it is advisable to include this on normal capacity.

Case 2:

Actual production is 3,75,000 units. Fixed overhead is not going to change with the change in output and will remain constant atRs. 15,00,000, therefore, overheads on actual basis is Rs. 4 p/u (15,00,000/3,75,000).

Hence by valuing inventory at Rs. 4 each for fixed overhead purpose, it will be overvalued and the losses of Rs. 3,75,000 will also be included in closing inventory leading to a higher gross profit then actually earned.

Therefore, it is advisable to include fixed overhead per unit on normal capacity to actual production (3,75,000 x 3) Rs. 11,25,000 and balance Rs. 3,75,000 shall be transferred to

Profit & Loss Account.

Case 3:

Actual production is 7,50,000 units. Fixed overhead is not going to change with the change in output and will remain constant atRs. 15,00,000, therefore, overheads on actual basis is Rs. 2 (15,00,000/ 7,50,000). Hence by valuing inventory at Rs. 3 each for fixed overhead purpose, we will be adding the element of cost to inventory which actually has not been incurred. At Rs. 3 per unit, total fixed overhead comes to Rs. 22,50,000 whereas, actual fixed overhead expense is only Rs. 15,00,000. Therefore, it is advisable to include fixed overhead on actual basis (7,50,000 x 2) Rs. 15,00,000.

IMPORTANT ISSUE IN RELATION TO COST OF INVENTORY:

Issue 1:

If payment for Cost of Inventory is to be made beyond Credit Terms (say payment after 1 year), then what should be the Cost of Inventory?

Answer:

Cost of Inventory should be = Present Value of Future Cash Outflow (discounted) also known as Cash price equivalent (i.e. current selling price)

Issue 2:

What should be the Treatment of Spare Parts, Standby Equipment and Servicing Equipments purchased and used in PPE?

Answer:

Case I: If they meet the definition of PPE as per AS 10: Recognised as PPE.

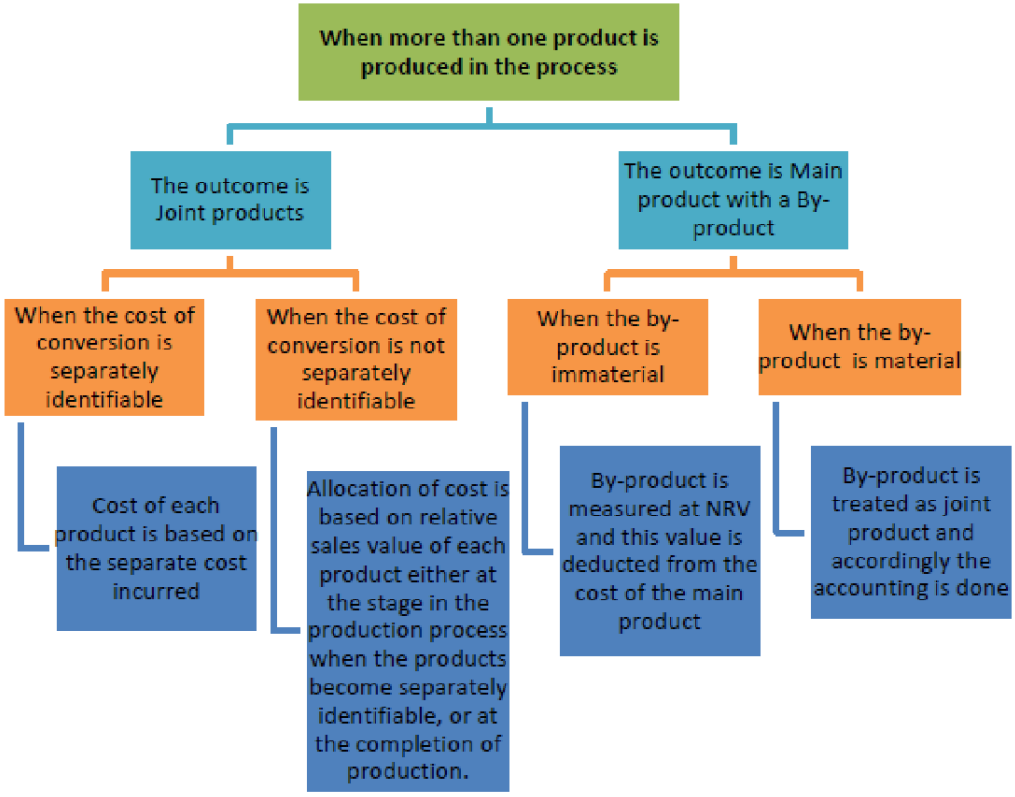
PPE a/c Dr.
To Bank a/c

Case II: If they do not meet the definition of PPE as per AS 10: Such items are classified as Inventory as per AS 2.

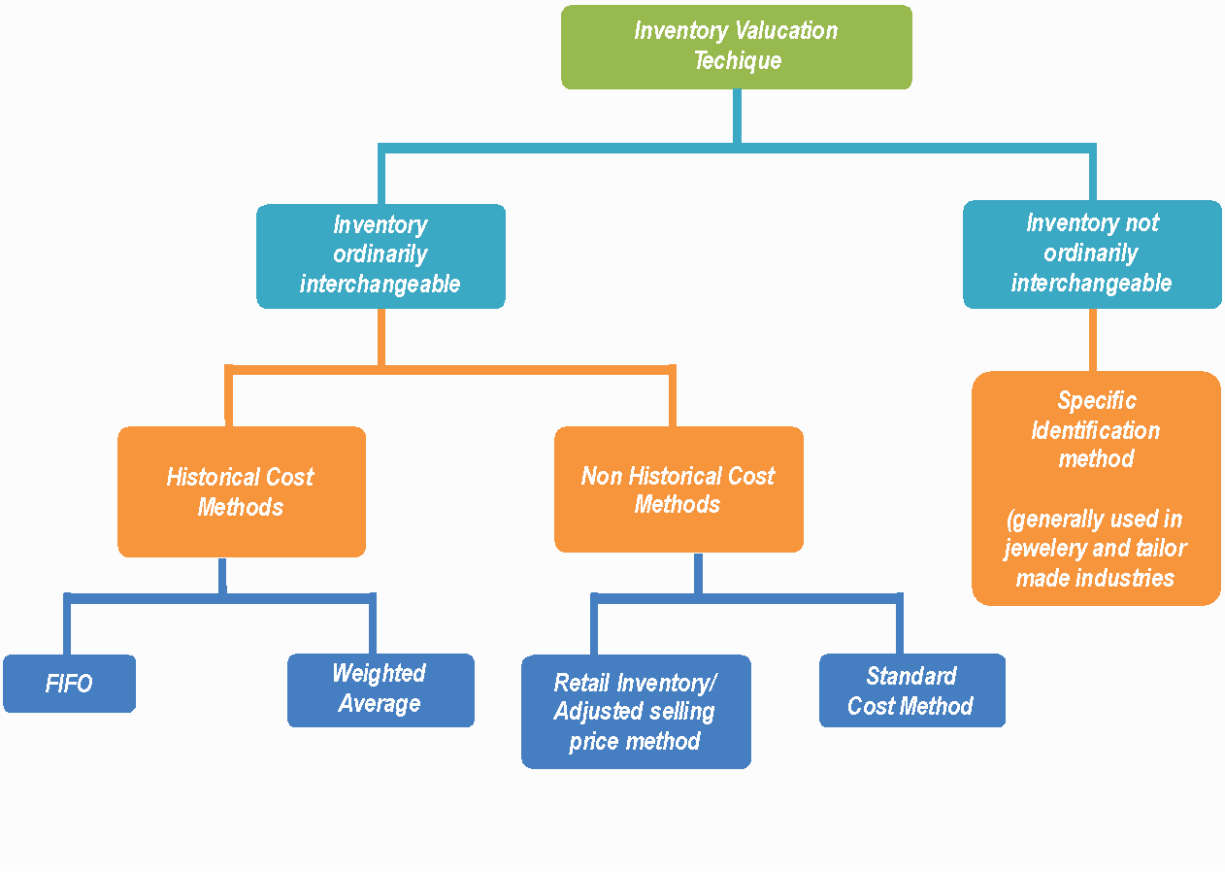
Purchase a/c Dr.
To Bank a/c

(At balance sheet date, if they are not yet fully consumed then shall be included under Inventory and Measured accordingly as per AS 2)

6. ALLOCATION OF COST TO JOINT PRODUCTS AND BY-PRODUCTS



7. TECHNIQUES OF MEASURING THE COST



(i) **Standard Cost Method:** Cost is based on normal levels of materials and supplies, labour efficiency and capacity utilization. Standard Rates of Material, labour and overheads are taken each month to measure the inventory.

(ii) **Retail Method:** Cost is determined by reducing the sales value of the inventory by the appropriate percentage gross margin. This method is often used in the retail industry for measuring inventories of rapidly changing items that have similar margins.

Note: AS 2 Inventories ***does not permit using LIFO (last-in-first-out).***

Imp Issue: Whether an entity can use different cost formulae for the inventories held at different geographical locations?

Answer:

AS 2 states that an entity shall use the same cost formula for all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified.

Also, difference in geographical location of inventories does not justify the use of a different cost formula, if the inventories are of similar nature and use to the entity.

Example 4:

A trader purchased certain articles for Rs. 85,000. He sold some of articles for Rs. 1,05,000. The average percentage of gross margin is 25% on cost. Opening stock of inventory at cost was Rs. 15,000. Cost of closing inventory is shown below:

	Rs.
Sale value of opening stock and purchase (Rs. 85,000 + Rs. 15,000) × 1.25	1,25,000
Sales	(1,05,000)
Sale value of unsold stock	20,000
Less: Gross Margin (Rs. 20,000 / 1.25) × 0.25	(4,000)
Cost on inventory	16,000

TRADE DISCOUNT & CASH DISCOUNT

- **Trade discount** should be **deducted** to determine the Cost of Inventory.
- **Cash discounts** are incurred to recover the sale proceeds immediately or before the end of the specified period or credit period allowed to the customer. Therefore, the same should **not be considered** while determining NRV.

8. MCQ's from ICAI Resources

1. Which item of inventory is under the scope of AS 2 (Revised)?
   (a) WIP arising under construction contracts
   (b) Raw materials
   (c) Shares
   (d) Debentures held as stock in trade.

2. Materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be
   (a) sold at or above cost.
   (b) sold above cost.
   (c) sold less than cost.
   (d) sold at market value (where market value is more than cost).

3. All of the following costs are excluded while computing value of inventories except?
   (a) Selling and Distribution costs
   (b) Allocated fixed production overheads based on normal capacity.
   (c) Abnormal wastage
   (d) Storage costs (which is necessary part of the production process)

4. Identify the statement(s) which is/are incorrect.
   (a) A storage cost which is a necessary part of the production process is included in inventory valuation.
   (b) Administration overheads are never included in inventory valuation.
   (c) Full amount of variable production overheads incurred are included in inventory valuation.
   (d) Administration overheads are always included in inventory valuation.

5. The cost of inventories of items that are not ordinarily inter-changeable and goods or services produced and segregated for specific projects should be assigned by
   a) Specific identification of their individual costs
   b) FIFO
   c) Weighted average cost formula
   d) (b) or (c)

6. Inventory consists of
   a) Raw materials and consumables and loose tools
   b) Work in process
   c) Finished goods
   d) All of the above

7. Which of the method is not recommended by AS 2?
   (a) FIFO
   (b) LIFO
   (c) Weighted average
   (d) Specific identification method

8. Inventory account should be classified in which section of a balance sheet?
   (a) Current assets
   (b) Investments
   (c) Property, plant, and equipment
   (d) Intangible assets

ANSWERS	1	2	3	4	5	6	7	8
	b	a	b	b	a	d	b	a

9. MCQ's Created by Jai Sir and Team

9. X Co. Limited purchased goods at the cost of ₹ 40 lakhs in October, 20X1. Till March, 20X2, 75% of the stocks were sold. The company wants to disclose closing stock at 10 lakhs. The expected sale value is ₹ 11 lakhs and a commission at 10% on sale is payable to the agent. Advice, what is the correct closing stock to be disclosed as at 31.3.20X2.
   a) ₹ 10 lakhs
   b) ₹ 11 Lakhs
   c) ₹ 9.9 Lakhs
   d) ₹ 9 Lakhs

10. What will be the value per kg of finished goods which consisting of:

	₹ Per kg.
Material cost	200
Direct labor	40
Direct variable overhead	20

Fixed production charges for the year on normal working capacity of 2 lakh kgs is ₹ 20 lakhs. 4,000 kgs of finished goods are in stock at the year end.
   a) ₹ 1,04,000
   b) ₹ 10,80,000
   c) ₹ 270
   d) ₹ 10,04,000

11. A trader purchased certain articles for ₹ 85,000. He sold some of articles for ₹ 1,05,000. The average percentage of gross markup is 25% on cost. Opening stock of inventory at cost was ₹ 15,000. Cost of closing inventory is:
    (a) ₹ 20,000
    (b) ₹ 5,000
    (c) ₹ 25,000
    (d) ₹ 16,000

12. When valuing inventories at the lower of cost and net realizable value, which underlying principle is primarily being upheld?
    a) Prioritizing the historical purchase price over future market dynamics.
    b) Ensuring that assets maintain a consistent valuation irrespective of market fluctuations.
    c) Recognizing that no asset should be carried at a value exceeding what can be realized through its sale or utilization, considering factors such as estimated selling price, costs of completion, and costs to make the sale.
    d) Emphasizing the importance of periodic inventory counts over value considerations.

13. Company DEF operates in a competitive market environment. During a specific accounting period, they incurred various costs related to their production and distribution processes. The details are as follows:
    Direct Materials Cost: ₹ 12,500, including ₹ 1,500 for materials wasted due to unforeseen technical issues.
    Direct Labour Cost: ₹ 9,000, of which ₹ 1,000 was spent on overtime due to increased demand.
    Factory Overhead: ₹ 7,500, with ₹ 500 attributed to a machine repair that was more than budgeted.
    Storage Costs: ₹ 2,500, out of which only ₹ 2,000 related to production.
    Administrative Overheads: ₹ 5,500, including ₹ 1,000 for an advertising campaign to promote the product, which did not directly affect the inventory's condition or location.
    Selling and Distribution Costs: ₹ 4,000, with ₹ 700 spent on expedited shipping due to customer-specific requirements.
    Given the principles of inventory costing, how much of the above costs should be excluded when determining the cost of inventories?
    (a) ₹ 3,500
    (b) ₹ 8,700
    (c) ₹ 5,200
    (d) ₹ 6,200

14. When considering the cost components that can be included in the valuation of inventory, which of the following statements align with standard practices?
    (a) All costs incurred by a company, regardless of their nature, are directly added to the inventory valuation.

(b) Interest and borrowing costs are universally excluded from inventory costs unless the inventory requires a significant period to be prepared for sale, as seen with products like wine.

(c) Amortization of intangibles, such as copyrights for publishers, is explicitly recognized and always included in the determination of inventory costs.

(d) Exchange differences, regardless of their magnitude, are always incorporated into the inventory cost calculations.

15. In determining estimates of net realizable value for inventories after the balance sheet date, which of the following statements is most accurate?

(a) Estimates of net realizable value solely depend on the initial purchase cost of the inventory.

(b) Estimates are static and do not consider any events occurring after the balance sheet date.

(c) Estimates consider fluctuations in price or cost post-balance sheet, but only if such events alter the conditions existing at the balance sheet date.

(d) Fluctuations in price or cost after the balance sheet date are always excluded from the estimation process.

16. Company STU maintains detailed records of its inventories. During a review, they found varying costs and potential net realizable values (NRVs) for different items. Given the principle they follow, how should Company STU ideally compare the cost with the net realizable value for their inventory?

(a) Aggregate all inventory items and compare the total cost against the total NRV.

(b) Compare the cost and NRV for each item individually without any grouping.

(c) Group items only if they have identical costs and compare the grouped total against the NRV.

(d) Group similar or related items for comparison purposes, but ensure that each comparison is made on an item-by-item basis within those groups.

17. Company DEF operates in a competitive market environment. During a specific accounting period, they incurred various costs related to their production and distribution processes. The details are as follows:

Direct Materials Cost: ₹ 12,500, including ₹ 1,500 for materials wasted due to unforeseen technical issues.

Direct Labour Cost: ₹ 9,000, of which ₹ 1,000 was spent on overtime due to increased demand.

Factory Overhead: ₹ 7,500.

Storage Costs: ₹ 2,500, out of which only ₹ 2,000 related to production.

Administrative Overheads: ₹ 5,500, including ₹ 1,000 for transport cost of bringing the inventory into warehouse.

Selling and Distribution Costs: ₹ 4,000, with ₹ 700 spent on shipping due to customer-specific requirements.

Given the principles of inventory costing, how much of the above costs should be Included when determining the cost of inventories?

(a) ₹ 34,000

(b) ₹ 30,500
(c) ₹ 34,700
(d) ₹ 29,500

18. Consider the following information, Calculate the Cost of Inventory:

- Purchase Cost: Rs. 50,000
- Non-refundable Duties and Taxes: Rs.5,000
- Freight: Rs.3,000
- Conversion Costs (Labor cost): Rs.12,000
- Other Costs of bringing inventory to its location and condition: Rs.8,000
- Abnormal Losses: Rs.2,000
- General Overheads: Rs.7,000
- Godown Rent: Rs.4,000
- Trade Discount: Rs.6,000
- Borrowing Cost: Rs.1,500 (Inventory takes 1 month for ready to sale)
- Total Fixed Production Overheads: Rs.10,000, normal capacity is 2000 units and actual production 1800 units.
- Variable Production Overheads (absorbed based on actual capacity): Rs.15 per hour (consider 500 hours of actual capacity)

a) Rs. 91,000
b) Rs. 89,500
c) Rs. 88,500
d) Rs. 92,500

19. Gamma Ltd. has inventory of raw material Y of 10,000 units as at 31 March, 20X4 with a carrying amount of Rs. 100 each. The current market value of that raw material is Rs. 95 each. Gamma Ltd. will use the raw material to manufacture a component for a customer. The conversion cost for making the finished goods would be Rs. 130 each. Gamma Ltd. estimates costs to completion and sale of Rs. 50 each and a selling price for the component is estimated to be Rs. 290 each.
At what value the raw material Y be measured in the books of Gamma Ltd. as per applicable IndAS?

(a) Rs. 950 thousand
(b) Rs. 1100 thousand
(c) Rs. 1600 thousand
(d) Rs. 1000 thousand

Explanations:

Q11.

Sale value of Opening stock and purchases = (85,000 + 15,000) x 1.25 = 1,25,000

Sales = 1,05,000

Sale value of unsold stock = (1,25,000 - 1,05,000) = 20,000

Less gross mark up = 4,000

Hence, Closing stock = **16,000 (d)**

Q13.

In determining the cost of inventories in accordance with paragraph 6, it is appropriate to exclude certain costs and recognise them as expenses in the period in which they are incurred.

Examples of such costs are:

(a) abnormal amounts of wasted materials, labour, or other production costs;

(b) storage costs, unless those costs are necessary in the production process prior to a further production stage;

(c) administrative overheads that do not contribute to bringing the inventories to their present location and condition; and

(d) selling and distribution costs.

Hence answer is = (1,500 + 1,000 + (2,500 - 2,000) + 1,000 + 4,700) = **8,700 (b)**

Q17.

In determining the cost of inventories in accordance with paragraph 6, it is appropriate to exclude certain costs and recognise them as expenses in the period in which they are incurred.

Examples of such costs are:

(a) abnormal amounts of wasted materials, labour, or other production costs;

(b) storage costs, unless those costs are necessary in the production process prior to a further production stage;

(c) administrative overheads that do not contribute to bringing the inventories to their present location and condition; and

(d) selling and distribution costs.

Hence answer is = 11,000 + 9,000 + 7,500 + 2,000 + 1,000 = **30,500 (b)**

Q18

50,000 + 5,000 + 3,000 + 12,000 + 8,000 – 6,000 + 9,000 fixed oh + 7,500 = **88,500**

Q19

As per AS 2, materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. However, when a decline in the price of materials indicates that the cost of the finished products exceeds net realisable value, the materials are written down to net realisable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net

realisable value. Here, the NRV of each unit of finished goods is Rs. 240 (ie Rs. 290 – Rs. 50), which is more than the cost of finished goods ie Rs. 230 (ie. Rs. 100 + Rs. 130). Hence the raw material will be valued at cost ie Rs. 100 each. Thus, the total cost of raw material will be Rs. 10,00,000 (ie Rs. 10,000 x Rs. 100)

ANSWERS	9	10	11	12	13	14	15	16	17	18	19
	c	c	d	c	b	c	c	d	b	c	d