

INDAS – 115

REVENUE FROM CONTRACTS WITH CUSTOMER

(TOTAL NO. OF QUESTIONS – 29)

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RTPs QUESTIONS

Q.1 (MAY 19 also in Oct. 19 MTP)

KK Ltd. runs a departmental store which awards 10 points for every purchase of Rs500 which can be discounted by the customers for further shopping with the same merchant. Each point is redeemable on any future purchases of KK Ltd.'s products within 3 years. Value of each point is Rs0.50. During the accounting period 2017-2018, the entity awarded 1,00,00,000 points to various customers of which 18,00,000 points remained undiscounted (to be redeemed till 31st March, 2020). The management expects only 80% of the remaining will be discounted in future.

The Company has approached your firm with the following queries and has asked you to suggest the accounting treatment (Journal Entries) under the applicable Ind AS for these award points:

- How should the recognition be done for the sale of goods worth Rs. 10,00,000 on a particular day?
- How should the redemption transaction be recorded in the year 2017-2018? The Company has requested you to present the sale of goods and redemption as an independent transaction. Total sales of the entity is Rs. 5,000 lakhs.
- How much of the deferred revenue should be recognised at the year-end (2017-2018) because of the estimation that only 80% of the outstanding points will be redeemed?
- In the next year 2018-2019, 60% of the outstanding points were discounted Balance 40% of the outstanding points of 2017-2018 still remained outstanding. How much of the deferred revenue should the merchant recognize in the year 2018-2019 and what will be the amount of balance deferred revenue?
- How much revenue will the merchant recognize in the year 2019-2020, if 3,00,000 points are redeemed in the year 2019-2020?



SOLUTION

a) Points earned on Rs 10,00,000 @ 10 points on every Rs 500 = $[(10,00,000/500) \times 10] = 20,000$ points.
Value of points = 20,000 points x Rs 0.5 each point = Rs 10,000

Total of standalone values of both the components = 10,00,000+10,000 = 10,10,000

Actual consideration = 10,00,000. Hence, proportionate consideration is as follows -

Revenue recognized for sale of goods	Rs 9,90,099	$[10,00,000 \times (10,00,000/10,10,000)]$
Revenue for points deferred	Rs 9,901	$[10,00,000 \times (10,000/10,10,000)]$

Journal Entry

		Rs	Rs
Bank A/c	Dr	10,00,000	
To Sales A/c			9,90,099
To Liability under Customer Loyalty programme			9,901

b) Points earned on Rs. 50,00,00,000 @ 10 points on every Rs.500 = $[(50,00,00,000/500) \times 10] = 1,00,00,000$ points.

Value of points = 1,00,00,000 points x Rs0.5 each point = Rs50,00,000

Total of standalone values of both the components = 50,00,00,000+50,00,000 = 50,50,00,000

Actual consideration = 50,00,00,000. Hence, proportionate consideration is as follows -

Revenue recognized for sale of goods = Rs. 49,50,49,505

$[50,00,00,000 \times (50,00,00,000 / 50,50,00,000)]$

Revenue for points = Rs49,50,495 $[50,00,00,000 \times (50,00,000 / 50,50,00,000)]$

Total liability = 49,50,495 for 1,00,00,000 points. Out of this, 82,00,000 points will be redeemed in 17-18 and remaining 18,00,000 in 18-19 & 19-20.

As per company expectations, only 80% of remaining points will be redeemed

.i.e. 80% x 18,00,000 = 14,40,000 points.

Therefore, the liability of 49,50,495 is actually for 96,40,000 points only (82,00,000 + 14,40,000) and **not** 1,00,00,000 points.

Journal Entries in the year 2017-18

		Rs	Rs
Bank A/c	Dr.	50,00,00,000	
To Sales A/c			49,50,49,505
To Liability under Customer Loyalty programme A/c			49,50,495
(On sale of Goods)			
Liability under Customer Loyalty programme A/c	Dr.	42,11,002	
To Sales A/c			42,11,002
(On redemption of 82 lakhs points)			

Revenue to be recognised with respect to discounted point = $49,50,495 \times (82,00,000 / 96,40,000) = 42,11,002$
(being proportionate revenue for 82,00,000 points redeemed in 17-18)

c) Revenue to be deferred with respect to undiscounted point in 2017-2018 = $49,50,495 - 42,11,002 = 7,39,493$

d) In 2018-2019, KK Ltd. would recognize revenue for discounting of 60% of outstanding points as follows:

Outstanding points = $18,00,000 \times 60\% = 10,80,000$ points

Total points discounted till date = $82,00,000 + 10,80,000 = 92,80,000$ points

Revenue to be recognized in the year 2018-2019 = $[\{49,50,495 \times (92,80,000 / 96,40,000)\} - 42,11,002] = \text{Rs } 5,54,620$.

Journal Entry in the year 2018-2019

		Rs	Rs
Liability under Customer Loyalty programme	Dr.	5,54,620	
To Sales A/c			5,54,620
(On redemption of further 10,80,000 points)			

The Liability under Customer Loyalty programme at the end of the year 2018-2019 will be $\text{Rs } 7,39,493 - 5,54,620 = 1,84,873$.

e) In the year 2019-2020, the merchant will recognize the balance revenue of $\text{Rs } 1,84,873$ irrespective of the points redeemed as this is the last year for redeeming the points. Journal entry will be as follows:

Journal Entry in the year 2019-2020

		Rs	Rs
Liability under Customer Loyalty programme	Dr.	1,84,873	
To Sales A/c			1,84,873
(On redemption of further 10,80,000 points)			

Q2 (NOV 19)

An entity G Ltd. enters into a contract with a customer P Ltd. for the sale of machinery for Rs.20,00,000. P Ltd. intends to use the said machinery to start a food processing unit. The food processing industry is highly competitive and P Ltd. has very little experience in the said industry.

P Ltd. pays a non-refundable deposit of Rs.1,00,000 at inception of the contract and enters into a long-term financing agreement with G Ltd. for the remaining 95 percent of the agreed consideration which it intends to pay primarily from income derived from its food processing unit as it lacks any other major source of income. The financing arrangement is provided on a non-recourse basis, which means that if P Ltd. defaults then G Ltd. can repossess the machinery but cannot seek further compensation from P Ltd., even if the full value of the amount owed is not recovered from the machinery. The cost of the machinery for G Ltd. is Rs. 12,00,000. P Ltd. obtains control of the machinery at contract inception.

When should G Ltd. recognise revenue from sale of machinery to P Ltd. in accordance with Ind AS 115?

SOLUTION

As per Ind AS 115, "An entity shall account for a contract with a customer that is within the scope of this Standard only when **all** of the following criteria are met:

- (a) the parties to the contract have approved the contract (in writing, orally or in accordance with other customary business practices) and are committed to perform their respective obligations;
- (b) the entity can identify each party's rights regarding the goods or services to be transferred;
- (c) the entity can identify the payment terms for the goods or services to be transferred;
- (d) the contract has commercial substance (ie the risk, timing or amount of the entity's future cash flows is expected to change as a result of the contract); and
- (e) it is probable that the entity will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer. In evaluating whether collectability of an amount of consideration is probable, an entity shall consider only the customer's ability and intention to pay that amount of consideration when it is due. The amount of consideration to which the entity will be entitled may be less than the price stated in the contract if the consideration is variable because the entity may offer the customer a price concession".

In the given case, it is **not** probable that G Ltd. will collect the consideration to which it is entitled in exchange for the transfer of the machinery. P Ltd.'s ability to pay may be uncertain due to the following reasons:

- (a) P Ltd. intends to pay the remaining consideration (which has a significant balance) primarily from income derived from its food processing unit (which is a business involving significant risk because of high competition in the said industry and P Ltd.'s little experience);
- (b) P Ltd. lacks sources of other income or assets that could be used to repay the balance consideration; and
- (c) P Ltd.'s liability is limited because the financing arrangement is provided on a non- recourse basis.

In accordance with the above, the criteria of Ind AS 115 are not met.

Further, the Ind AS states that when a contract with a customer does not meet the criteria in paragraph 9 and an entity receives consideration from the customer, the entity shall recognise the consideration received as revenue only when either of the following events has occurred:

- (a) The entity has no remaining obligations to transfer goods or services to the customer and all, or substantially all, of the consideration promised by the customer has been received by the entity and is non-refundable; or



(b) The contract has been terminated and the consideration received from the customer is non-refundable.

Para 16 states that an entity shall recognise the consideration received from a customer as a liability until one of the events in paragraph 15 occurs or until the criteria in paragraph 9 are subsequently met. Depending on the facts and circumstances relating to the contract, the liability recognised represents the entity's obligation to either transfer goods or services in the future or refund the consideration received. In either case, the liability shall be measured at the amount of consideration received from the customer.

In accordance with the above, in the given case G Ltd. should account for the non-refundable deposit of Rs.1,00,000 payment as a deposit liability as none of the events described in paragraph 15 have occurred—that is, neither the entity has received substantially all of the consideration nor it has terminated the contract. Consequently, in accordance with paragraph 16, G Ltd. will continue to account for the initial deposit as well as any future payments of principal and interest as a deposit liability until the criteria in paragraph 9 are met (i.e. the entity is able to conclude that it is probable that the entity will collect the consideration) or one of the events in paragraph 15 has occurred. Further, G Ltd. will continue to assess the contract in accordance with paragraph 14 to determine whether the criteria in paragraph 9 are subsequently met or whether the events in paragraph 15 of Ind AS 115 have occurred.

Q3. (MAY 20)

Entity I sells a piece of machinery to the customer for Rs 2 million, payable in 90 days. Entity I is aware at contract inception that the customer might not pay the full contract price. Entity I estimates that the customer will pay at least Rs 1.75 million, which is sufficient to cover entity I's cost of sales (Rs 1.5 million) and which entity I is willing to accept because it wants to grow its presence in this market. Entity I granted similar price concessions in comparable contracts.

Entity I concludes that it is highly probable that it will collect Rs 1.75 million, and such amount is not constrained under the variable consideration guidance.

What is the transaction price in this arrangement?

SOLUTION

Entity I is likely to provide a price concession and accept an amount less than Rs 2 million in exchange for the machinery. The consideration is therefore variable. Entity I can also conclude that the collectability threshold is met for Rs 1.75 million and therefore the contract exists. The transaction price in this arrangement is Rs 1.75 million, as this is the amount which Entity I expects to receive after providing the concession and it is not constrained under the variable consideration guidance.

Q4. (MAY 20)

On 1 January 20x8, entity J enters into a one-year contract with a customer to deliver water treatment chemicals. The contract stipulates that the price per container will be adjusted retroactively once the customer reaches certain sales volume, defined, as follows:

Price per container	Cumulative sales volume
Rs 100	1 - 1,000,000 containers
Rs 90	1,000,001 - 3,000,000 containers
Rs 85	3,000,001 containers and above

Volume is determined based on sales during the calendar year. There are no minimum purchase requirements. Entity J estimates that the total sales volume for the year will be 2.8 million containers, based on its experience with similar contracts and forecasted sales to the customer.

Entity J sells 700,000 containers to the customer during the first quarter ended 31 March 20X8 for a contract price of Rs. 100 per container.

How should entity J determine the transaction price?

SOLUTION

The transaction price is Rs 90 per container based on entity J's estimate of total sales volume for the year, since the estimated cumulative sales volume of 2.8 million containers would result in a price per container of Rs 90. Entity J concludes that based on a transaction price of Rs 90 per container, it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty is resolved. Revenue is therefore recognised at a selling price of Rs 90 per container as each container is sold. Entity J will recognise a **liability** for cash received in excess of the transaction price for the first 1 million containers sold at Rs 100 per container (that is, Rs 10 per container) until the cumulative sales volume is reached for the next pricing tier and the price is retroactively reduced.

For the quarter ended 31st March, 20X8, Entity J recognizes revenue of Rs 63 million (700,000 containers x Rs 90) and a liability of Rs 7 million [700,000 containers x (Rs 100 - Rs 90)].

Entity J will update its estimate of the total sales volume at each reporting date until the uncertainty is resolved.

Q5. (RTP MAY 20 & MTP MARCH 20)

Entity K sells electric razors to retailers for Rs. 50 per unit. A rebate coupon is included inside the electric razor package that can be redeemed by the end consumers for Rs. 10 per unit.

Entity K estimates that 20% to 25% of eligible rebates will be redeemed, based on its experience with similar programmes and rebate redemption rates available in the market for similar programmes. Entity K concludes that the transaction price should incorporate an assumption of 25% rebate redemption, as this is the amount for which it is highly probable that a significant reversal of cumulative revenue will not occur if estimates of the rebates change.

How should entity K determine the transaction price?

SOLUTION

Entity K records sales to the retailer at a transaction price of Rs 47.50 (Rs 50 less 25% of Rs 10). The difference between the per unit cash selling price to the retailers and the transaction price is recorded as a liability for cash consideration expected to be paid to the end customer. Entity K will update its estimate of the rebate and the transaction price at each reporting date if estimates of redemption rates change.

Q6. (RTP MAY 20 & MTP MARCH 20)

A manufacturer enters into a contract to sell goods to a retailer for Rs 1,000. The manufacturer also offers price protection, whereby it will reimburse the retailer for any difference between the sale price and the lowest price offered to any customer during the following six months. This clause is consistent with other price protection clauses offered in the past, and the manufacturer believes that it has experience which is predictive for this contract.

Management expects that it will offer a price decrease of 5% during the price protection period. Management concludes that it is highly probable that a significant reversal of cumulative revenue will not occur if estimates change.

How should the manufacturer determine the transaction price?

SOLUTION

The transaction price is Rs 950, because the expected reimbursement is Rs 50 (5% x 1,000). The expected payment to the retailer is reflected in the transaction price at contract inception, as that is the amount of consideration to which the manufacturer expects to be entitled after the price protection. The manufacturer will recognise a liability for the difference between the invoice price and the transaction price, as this represents the cash that it expects to refund to the retailer. The manufacturer will update its estimate of expected reimbursement at each reporting date until the uncertainty is resolved.

Q7. (NOV 20)

A contractor enters into a contract with a customer to build an asset for Rs. 1,00,000, with a performance bonus of Rs. 50,000 that will be paid based on the timing of completion. The amount of the performance bonus decreases by 10% per week for every week beyond the agreed-upon completion date. The contract requirements are similar to those of contracts that the contractor has performed previously, and management believes that such experience is predictive for this contract. The contractor concludes that the expected value method is most predictive in this case.

The contractor estimates that there is a 60% probability that the contract will be completed by the agreed-upon completion date, a 30% probability that it will be completed one week late, and a 10% probability that it will be completed two weeks late.

Determine the transaction price.

SOLUTION

The transaction price should include management's estimate of the amount of consideration to which the entity will be entitled for the work performed.

Probability-weighted	Consideration
Rs.1,50,000(fixed fee plus full performance bonus) x 60%	Rs.90,000
Rs.1,45,000 (fixed fee plus 90% of performance bonus) x 30%	Rs.43,500
Rs.1,40,000 (fixed fee plus 80% of performance bonus) x 10%	Rs.14,000
Total probability-weighted consideration	Rs.1,47,500

The total transaction price is Rs. 1,47,500, based on the probability-weighted estimate. The contractor will update its estimate at each reporting date.

Q8. (MAY 21)

A manufacturer gives warranties to the purchasers of its goods. Under the terms of the warranty, the manufacturer undertakes to make good, by repair or replacement, manufacturing defects that become apparent within three years from the date of sale to the purchasers.

On 30 April 20X1, a manufacturing defect was detected in the goods manufactured by the entity between 1 March 20X1 and 30 April 20X1.

At 31 March 20X1 (the entity's reporting date), the entity held approximately one week's sales in inventories.

The entity's financial statements for the year ended 31 March 20X1 have not yet been finalized.

Three separate categories of goods require separate consideration:

Category 1—defective goods sold on or before 31 March 20X1

Category 2—defective goods held on 31 March 20X1

Category 3—defective goods manufactured in 20X1-20X2

State the accounting treatment of the above categories in accordance with relevant Ind AS.

SOLUTION

Category 1—defective goods sold on or before 31 March 20X1

If a customer has the option to purchase a warranty separately, the warranty is a distinct service because the entity promises to provide the service to the customer in addition to the product that has the functionality described in the contract. In that case, the entity shall account for the promised warranty as a performance obligation and allocate a portion of the transaction price to that performance obligation.

If a customer does not have the option to purchase a warranty separately, an entity shall account for the warranty in accordance with Ind AS 37, Provisions, Contingent Liabilities and Contingent Assets, unless it provides the customer with a service in addition to the assurance that the product complies with agreed-upon specifications. If that is the case, then, the promised service is a performance obligation. Entity shall allocate the transaction price to the product and the service.

If an entity promises both an assurance-type warranty and a service-type warranty but cannot reasonably account for them separately, the entity shall account for both of the warranties together as a single performance obligation.

A law that requires an entity to pay compensation if its products cause harm or damage does not give rise to a performance obligation. The entity shall account for such obligations in accordance with Ind AS 37

Category 2—defective goods held on 31 March 20X1

At 31 March 20X1, the entity did not have a present obligation to make good the unsold defective goods that it held in inventories. Accordingly, at 31 March 20X1 the entity should not recognise a provision in respect of the defective inventories.

For this category, the detection of the manufacturing defect in April 20X1 is an **adjusting event** after the end of the reporting period as per Ind AS 10, Events after the End of the Reporting Period. It provides evidence of a manufacturing defect in inventories held at 31 March 20X1.

Category 3—defective goods manufactured in 20X1-20X2

On 31 March 20X1 the entity did not have a present obligation to make good, any defective goods that it might manufacture in the future. Accordingly, at 31 March 20X1 the entity should **not** recognise a provision in respect of the defective goods manufactured in 20X1-20X2.

For this category, the detection of the manufacturing defect in April 20X1 is a **non-adjusting event** after the end of the reporting period as per Ind AS 10, Events After the End of the Reporting Period.



Q9. (MAY 21)

A property sale contract includes the following:

- A) Common areas
- B) Construction services and building material
- C) Property management services
- D) Golf membership
- E) Car park
- F) Land entitlement

Analyze whether the above items can be considered as separate performance obligations as per the requirements of Ind AS 115?

SOLUTION

Ind AS 115 provides that at contract inception, an entity evaluates the promised goods or services to determine which goods or services (or bundle of goods or services) are distinct and therefore constitute a performance obligation.

A performance obligation is a promise in a contract to transfer to the customer either:

- a good or service (or a bundle of goods or services) that is distinct; and
- series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer.

As per Ind AS 115, a good or service that is promised to a customer is distinct if both of the following criteria are met:

- (a) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (i.e. the good or service is capable of being distinct); and
- (b) The entity's promise to transfer the goods or service to the customer is separately identifiable from other promises in the contract (i.e. the promise to transfer the goods or service is distinct within the context of the contract).

Each performance obligation is required to be accounted for separately.

Based on the above guidance, the following table discusses whether the common goods and services in property sale contract should be considered as separate performance obligation or not:

Goods/Service	Whether a separate Performance obligation (PO) or not	Reason
A. Common areas	Unlikely to be separate PO	Common areas are unlikely to be a separate performance obligation because the interests received in common areas are typically undivided interests that are not separable from the property itself. However, if the common areas were sold separately by the developer, then they could be considered as a separate performance obligation provided that it is distinct in the context of the contract.

B. Construction services and building material	Unlikely to be separate PO	Construction services and building materials can meet the first criterion as they are items that can be used in conjunction with other readily available goods or services. However, the developer would be considered to be providing a significant integration service as it is bringing together all the separate elements to deliver a complete building.
C. & D. Property management services and Golf membership	Likely to be separate PO	Property management services and golf membership are likely to be separate performance obligations as they may be used in isolation or with the property already acquired, i.e., management services can be used with the property. These types of services are not significantly customized, integrated with, or dependent on the property. This is because there is no change in their function with or without the property. Also, a property management service could be undertaken by a third party.
E. & F. Car park and Land entitlement	Analysis required	Items such as car parks and land entitlements generally meet the first criterion – i.e., capable of being distinct – as the buyer benefits from them on their own. Whether the second criterion is met depends on the facts and circumstances. For example, if the land entitlement can be sold separately or pledged as security as a separate item, it may indicate that it is not highly dependent on, or integrated with, other rights received in the contract. In an apartment scenario, the customer can receive an undivided interest in the land on which the apartment block sits. This type of right is generally considered as highly interrelated with the apartment itself. *

*However, if title to the land is transferred to the buyer separately – for example in a single party development – then the separately identifiable criterion may be met.

PS: Other facts and circumstances of each contract should also be carefully examined to determine performance obligations.

Q10. (NOV 21)

Prime Ltd. is a technology company and regularly sells Software S, Hardware H and Accessory A. The stand-alone selling prices for these items are stated below:

Software S – Rs. 50,000 Hardware H – Rs.1,00,000 and Accessory A – Rs. 20,000.

Since the demand for Hardware H and Accessory A is low, Prime Ltd. sells H and A together at Rs. 100,000.

Prime Ltd. enters into a contract with Zeta Ltd. to sell all the three items for a consideration of Rs.1,50,000.

What will be the accounting treatment for the discount in the financial statements of Prime Ltd., considering that the three items are three different performance obligations which are satisfied at different points in time? Further, what would be the accounting treatment if Prime Ltd. would have transferred the control of Hardware H and Accessory A at the same point in time.

SOLUTION

Paragraph 82 of Ind AS 115 states that, "An entity shall allocate a discount entirely to one or more, but not all, performance obligations in the contract if **all** of the following criteria are met:

- (a) the entity regularly sells each distinct good or service (or each bundle of distinct goods or services) in the contract on a stand-alone basis;
- (b) the entity also regularly sells on a stand-alone basis a bundle (or bundles) of some of those distinct goods or services at a discount to the stand-alone selling prices of the goods or services in each bundle; and
- (c) the discount attributable to each bundle of goods or services is substantially the same as the discount in the contract and an analysis of the goods or services in each bundle provides observable evidence of the performance obligation (or performance obligations) to which the entire discount in the contract belongs".

In the given case, the contract includes a discount of Rs. 20,000 on the overall transaction, which should have been allocated proportionately to all three performance obligations when allocating the transaction price using the relative stand-alone selling price method. However, as Prime Ltd. meets all the criteria specified in paragraph 82 above, i.e., it regularly sells Hardware H and Accessory A together for Rs. 1,00,000 and Software S for Rs. 50,000, accordingly, it is evident that the entire discount should be allocated to the promises to transfer Hardware H and Accessory A.

In the given case, since the contract requires the entity to transfer control of Hardware H and Accessory A at different points in time, then the allocated amount of Rs. 1,00,000 should be individually allocated to the promises to transfer Hardware H (stand-alone selling price of Rs. 1,00,000) and Accessory A (stand-alone selling price of Rs.20,000)

Product	Allocated transaction price (Rs.)
Hardware H	83,333 $(1,00,000 / 120,000 \times 100,000)$
Accessory A	16,667 $(20,000 / 120,000 \times 100,000)$
Total	1,00,000

However, if Prime Ltd. would have transferred the control of Hardware H and Accessory A at the same point in time, then the Prime Ltd. could, as a practical matter, account for the transfer of those products as a single performance obligation. That is, Prime Ltd. could allocate Rs. 1,00,000 of the transaction price to the single performance obligation and recognize revenue of Rs. 1,00,000 when Hardware H and Accessory A simultaneously transfer to Zeta Ltd.

Q11 (Nov. 22)

A Ltd. owns 20 resorts across India. Every customer who stays in any of the resorts owned by A Ltd. is entitled to get points on the basis of total amount paid by him. Under this scheme, 1 point is granted for every Rs. 100 spent for stay in the resort. As per the past experience of A Ltd., the likelihood of exercise of the points is 100% and the standalone price of each such point is Rs. 5. Customer X spends Rs. 10,000 in one of the resorts of A Ltd. What is the accounting treatment for the points granted by A Ltd.?

Answer:

As per Ind AS 115, "if in a contract, an entity grants a customer the option to acquire additional goods or services, that option gives rise to a separate performance obligation only if the option provides a material right to the customer that it would not receive without entering into that contract".

Further, IndAS 115 states that if a customer has the option to acquire an additional good or service at a price that would reflect the stand-alone selling price for that good or service, that option does not provide the customer with a material right even if the option can be exercised only by entering into a previous contract. In those cases, the entity has made a marketing offer that it shall account for in accordance with this Standard only when the customer exercises the option to purchase the additional goods or services.

In the given case, the customer does get a material right by way of a discount of Rs. 500 for every 100 points that he would not receive without the previous stay in that resort. Thus, the customer in effect pays the entity in advance for future goods and the entity recognises revenue when the goods are transferred.

According to IndAS 115, it requires an entity to allocate the transaction price to performance obligations on a relative stand-alone selling price basis. If the standalone selling price for a customer's option to acquire additional goods or services is not directly observable, an entity shall estimate it on the basis of percentage discount the customer may obtain upon exercising the option and the likelihood of the option getting exercised. In accordance with above, an entity shall account for award credit as a separate performance obligation of the sales transactions in which they are initially granted. The value of the consideration the entity expects to be entitled in respect of the initial sale shall be allocated between the award credits and the other components of the sale.

In the current case, the standalone selling price of the 100 points is Rs. 500. A Ltd. should allocate the fair value of the consideration (i.e. Rs. 10,000) between the points and the other components of the sale as Rs. 476 ($500/10,500 \times 10,000$) and Rs. 9,524 ($10,000/10,500 \times 10,000$) respectively in proportion of their standalone selling price. Since A Ltd. supplies the awards itself (i.e. it acts as a principal), it should recognize Rs. 476 as revenue when points are redeemed.

MTP QUESTIONS

Q12. (OCT 18)

The Company has sold certain items to a customer with after sale service for a period of two years from the date of such sale i.e. 1st October, 2017 without any additional charges. The total amount payable by the customer is agreed as follows:

- Rs. 8,00,000, if paid by 31st January, 2018;
- Rs. 8,10,000, if paid by 28th February, 2018;
- Rs. 8,20,000, if paid by 31st March, 2018.

Based on past experience it is highly probable that the customer makes the payment before 28th February, 2018. The standalone selling price of the product is Rs. 7,00,000 and two years' services are offered to the customer at Rs. 1,40,000.

Answer the following:

- A. How many transactions are included in the above arrangement as per applicable Ind AS
- B. What is the amount of revenue to be considered for revenue recognition as per the applicable Ind AS?
- C. What is the amount of revenue to be recognised under Ind AS towards sale of product as per the terms of the contract with the customer?
- D. What is the amount of revenue to be recognised under Ind AS towards sale of service as per the terms of the contract with the customer?
- E. What is the portion of current and non-current liabilities to be presented in the financial statements as per Ind AS?

SOLUTION

A. Two transactions are included in the above arrangement as per applicable Ind AS ie. sale of item includes following transactions:

- (i) Selling price of item
- (ii) Two-years' after sale service

B. Revenue attributable to both the components is calculated as follows:

Total fair value of item and two years' service period (7,00,000 + 1,40,000)	8,40,000
Less: Sale price of the item and two years' service period	(8,10,000)
Discount	30,000

Discount and revenue attributable to each component of the transaction:

Proportionate discount attributable to sale of item (30,000 x 7,00,000 / 8,40,000)	25,000
Revenue from sale of item (7,00,000 - 25,000)	6,75,000
Proportionate discount attributable to two years' service period (30,000 x 1,40,000 / 8,40,000)	5,000
Revenue from two years' service period (1,40,000 - 5,000)	1,35,000

C. Revenue in respect of sale of item should be recognised immediately i.e. Rs. 6,75,000



D. Revenue from two years' service period should be recognised over the 2-year period on monthly basis ie on 31st March, 2017 revenue for two years' service period will be Rs. 5,625 (Rs. 1,35,000/24 months)

E. Amount of two years' service period due within 12 months from the reporting date = $(1,35,000 / 24 \text{ months}) \times 12 \text{ months} = \text{Rs. } 67,500$ (Current).

Amount of two years' service period due after 12 months from the reporting date = $(1,35,000 / 24 \text{ months}) \times 11 \text{ months} = \text{Rs. } 61,875$ (Non-current).

Q13. (MARCH 19)

An entity enters into a contract with a customer for two intellectual property licenses (Licences A and B), which the entity determines to represent two performance obligations each satisfied at a point in time. The stand-alone selling prices of Licences A and B are Rs. 1,600,000 and Rs. 2,000,000, respectively. The entity transfers Licence B at inception of the contract and transfers Licence A one month later.

Case A — Variable consideration allocated entirely to one performance obligation

The price stated in the contract for Licence A is a fixed amount of Rs. 1,600,000 and for Licence B the consideration is three per cent of the customer's future sales of products that use Licence B. For purposes of allocation, the entity estimates its sales-based royalties (ie the variable consideration) to be Rs. 2,000,000. Allocate the transaction price.

Case B—Variable consideration allocated on the basis of stand-alone selling prices

The price stated in the contract for Licence A is a fixed amount of Rs. 600,000 and for Licence B the consideration is five per cent of the customer's future sales of products that use Licence B. The entity's estimate of the sales-based royalties (i.e. the variable consideration) is Rs.3,000,000. Allocate the transaction price and determine the revenue to be recognised for each license and the contract liability, if any.

SOLUTION

Case A—Variable consideration allocated entirely to one performance obligation

To allocate the transaction price, the entity considers the criteria in paragraph 85 and concludes that the variable consideration (i.e. the sales-based royalties) should be allocated entirely to Licence B. The entity concludes that the criteria are met for the following reasons:

- (a) The variable payment relates specifically to an outcome from the performance obligation to transfer Licence B (i.e. the customer's subsequent sales of products that use License B).
- (b) allocating the expected royalty amounts of Rs. 2,000,000 entirely to Licence B is consistent with the allocation objective in paragraph 73 of Ind AS 115. This is because the entity's estimate of the amount of sales-based royalties (Rs. 2,000,000) approximates the stand-alone selling price of Licence B and the fixed amount of Rs. 1,600,000 approximates the stand-alone selling price of Licence A. The entity allocates Rs. 1,600,000 to Licence A. This is because, based on an assessment of the facts and circumstances relating to both licences, allocating to Licence B some of the fixed consideration in addition to all of the variable consideration would not meet the allocation objective in paragraph 73 of Ind AS 115.

The entity transfers Licence B at inception of the contract and transfers Licence A one month later. Upon the transfer of Licence B, the entity does not recognise revenue because the consideration allocated to



Licence B is in the form of a sales-based royalty. Therefore, the entity recognises revenue for the sales-based royalty when those subsequent sales occur.

When Licence A is transferred, the entity recognises as revenue the Rs. 1,600,000 allocated to Licence A.

Case B—Variable consideration allocated on the basis of stand-alone selling prices

To allocate the transaction price, the entity applies the criteria in paragraph 85 of Ind AS 115 to determine whether to allocate the variable consideration (ie the sales-based royalties) entirely to Licence B.

In applying the criteria, the entity concludes that even though the variable payments relate specifically to an outcome from the performance obligation to transfer Licence B (ie the customer's subsequent sales of products that use Licence B), allocating the variable consideration entirely to Licence B would be inconsistent with the principle for allocating the transaction price. Allocating Rs. 600,000 to Licence A and Rs. 3,000,000 to Licence B does not reflect a reasonable allocation of the transaction price on the basis of the stand-alone selling prices of Licences A and B of Rs. 1,600,000 and Rs. 2,000,000, respectively. Consequently, the entity applies the general allocation requirements of Ind AS 115.

The entity allocates the transaction price of Rs. 600,000 to Licences A and B on the basis of relative stand-alone selling prices of Rs. 1,600,000 and Rs. 2,000,000, respectively. The entity also allocates the consideration related to the sales-based royalty on a relative stand-alone selling price basis. However, when an entity licenses intellectual property in which the consideration is in the form of a sales-based royalty, the entity cannot recognise revenue until the later of the following events: the subsequent sales occur or the performance obligation is satisfied (or partially satisfied).

Licence B is transferred to the customer at the inception of the contract and Licence A is transferred three months later. When Licence B is transferred, the entity recognises as revenue Rs. 333,333 $[(Rs. 2,000,000 \div Rs. 3,600,000) \times Rs. 600,000]$ allocated to Licence B. When Licence A is transferred, the entity recognises as revenue Rs. 266,667 $[(Rs. 1,600,000 \div Rs. 3,600,000) \times Rs. 600,000]$ allocated to Licence A.

In the first month, the royalty due from the customer's first month of sales is Rs. 400,000. Consequently, the entity recognises as revenue Rs. 222,222 $(Rs. 2,000,000 \div Rs. 3,600,000 \times Rs. 400,000)$ allocated to Licence B (which has been transferred to the customer and is therefore a satisfied performance obligation). The entity recognises a contract liability for the Rs. 177,778 $(Rs. 1,600,000 \div Rs. 3,600,000 \times Rs. 400,000)$ allocated to Licence A. This is because although the subsequent sale by the entity's customer has occurred, the performance obligation to which the royalty has been allocated has not been satisfied.

Q14. (APRIL 19 & May 20)

An entity enters into 1,000 contracts with customers. Each contract includes the sale of one product for Rs. 50 (1,000 total products \times Rs. 50 = Rs. 50,000 total consideration). Cash is received when control of a product transfers. The entity's customary business practice is to allow a customer to return any unused product within 30 days and receive a full refund. The entity's cost of each product is Rs. 30.

The entity applies the requirements in Ind AS 115 to the portfolio of 1,000 contracts because it reasonably expects that, in accordance with paragraph 4, the effects on the financial statements from applying these requirements to the portfolio would not differ materially from applying the requirements to the individual contracts within the portfolio. Since the contract allows a customer to return the products, the consideration received from the customer is variable. To estimate the variable consideration to which the entity will be entitled, the entity decides to use the expected value method (see paragraph 53(a) of Ind AS 115) because it

is the method that the entity expects to better predict the amount of consideration to which it will be entitled. Using the expected value method, the entity estimates that 970 products will not be returned. The entity estimates that the costs of recovering the products will be immaterial and expects that the returned products can be resold at a profit. Determine the amount of revenue, refund liability and the asset to be recognised by the entity for the said contracts.

SOLUTION

- The entity considers the requirements of Ind AS 115 on constraining estimates of variable consideration to determine whether the estimated amount of variable consideration of Rs. 48,500 (Rs. 50 × 970 products not expected to be returned) can be included in the transaction price.
- The entity considers the factors of Ind AS 115 and determines that although the returns are outside the entity's influence, it has significant experience in estimating returns for this product and customer class. In addition, the uncertainty will be resolved within a short time frame (ie the 30-day return period).

Thus, the entity concludes that it is highly probable that a significant reversal in the cumulative amount of revenue recognised (i.e. Rs. 48,500) will not occur as the uncertainty is resolved (i.e. over the return period).

- The entity estimates that the costs of recovering the products will be immaterial and expects that the returned products can be resold at a profit.
- Upon transfer of control of the 1,000 products, the entity does not recognise revenue for the 30 products that it expects to be returned. Consequently, in accordance with paragraphs 55 and B21 of Ind AS 115, the entity recognises the following:

(a) revenue of Rs. 48,500 (Rs. 50 × 970 products not expected to be returned);

(b) a refund liability of Rs. 1,500 (Rs. 50 refund × 30 products expected to be returned); and

(c) an asset of Rs. 900 (Rs. 30 × 30 products for its right to recover products from customers on settling the refund liability).

Q15. (MAY 20)

An entity enters into a contract for the sale of Product A for Rs. 1,000. As part of the contract, the entity gives the customer a 40% discount voucher for any future purchases up to Rs. 1,000 in the next 30 days. The entity intends to offer a 10% discount on all sales during the next 30 days as part of a seasonal promotion. The 10% discount cannot be used in addition to the 40% discount voucher.

The entity believes there is 80% likelihood that a customer will redeem the voucher and on an average, a customer will purchase Rs. 500 of additional products.

Determine how many performance obligations does the entity have & their stand-alone selling price and allocated transaction price?

SOLUTION

Since all customers will receive a 10% discount on purchases during the next 30 days, the only additional discount that provides the customer with a material right is the incremental discount of 30% on the products purchased. The entity accounts for the promise to provide the incremental discount as a separate performance obligation in the contract for the sale of Product A.

The entity believes there is 80% likelihood that a customer will redeem the voucher and on an average, a customer will purchase Rs. 500 of additional products. Consequently, the entity's estimated stand-alone selling



price of the discount voucher is Rs. 120 (Rs. 500 average purchase price of additional products x 30% incremental discount x 80% likelihood of exercising the option). The stand-alone selling prices of Product A and the discount voucher and the resulting allocation of the Rs. 1,000 transaction price are as follows:

Performance obligations	Stand-alone selling price
Product A	Rs. 1,000
Discount voucher	<u>Rs. 120</u>
Total	<u>Rs. 1,120</u>

Performance obligations		Allocated transaction price (to nearest Rs.10)
Product A	$(Rs. 1000 \div Rs. 1120 \times Rs. 1000)$	Rs. 890
Discount voucher	$(Rs. 120 \div Rs. 1120 \times Rs. 1000)$	<u>Rs. 110</u>
Total		<u>Rs. 1000</u>

The entity allocates Rs. 890 to Product A and recognises revenue for Product A when control transfers. The entity allocates Rs. 110 to the discount voucher and recognises revenue for the voucher when the customer redeems it for goods or services or when it expires.

Q16. (MAY 20)

ST Limited enters into a contract with a customer to sell an asset. Control of the asset will transfer to the customer in two years (i.e. the performance obligation will be satisfied at a point in time). The contract includes two alternative payment options:

- (1) Payment of Rs. 5,000 in two years when the customer obtains control of the asset or
- (2) Payment of Rs. 4,000 when the contract is signed.

The customer elects to pay Rs. 4,000 when the contract is signed.

ST Limited concludes that the contract contains a significant financing component because of the length of time between when the customer pays for the asset and when the entity transfers the asset to the customer, as well as the prevailing interest rates in the market.

The interest rate implicit in the transaction is 11.8 per cent, which is the interest rate necessary to make the two alternative payment options economically equivalent. However, the entity determines that the rate that should be used in adjusting the promised consideration is 6%, which is the entity's incremental borrowing rate. Pass journal entries showing how the entity would account for the significant financing component.

SOLUTION

Journal Entries showing accounting for the significant financing component:

- (a) Recognise a contract liability for the Rs. 4,000 payment received at contract inception:

Cash	Dr.	Rs. 4,000	
			To Contract liability
			Rs. 4,000

- (b) During the two years from contract inception until the transfer of the asset, the entity adjusts the promised amount of consideration and accretes the contract liability by recognising interest on Rs. 4,000 at 6% for two years:

Interest expense	Dr.	Rs. 494*
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To Contract liability

Rs. 494

* Rs. 494 = Rs. 4,000 contract liability × (6% interest per year for two years).

(c) Recognise revenue for the transfer of the asset:

Contract liability

Dr.

Rs. 4,494

To Revenue

Rs. 4,494

(Year 1 - 4,000 + 6% = 4,240; year 2 - 4,240 + 6% = 4,494)

Q17. (APRIL 21)

Buildings Limited with a financial year end of 31st March, entered into a contract with its customer, Radar Limited, to build a manufacturing facility. Buildings Limited determines that the contract contains one performance obligation satisfied over time. Construction is scheduled to be completed by the end of the 36th month for an agreed upon price of Rs. 25 crores. Buildings Limited has the opportunity to earn a performance bonus for early completion as follows:

- 15% bonus of the contract price if completed by the 30th month (25% likelihood).
- 10% bonus of the contract price if completed by the 32nd month (40% likelihood).
- 5% bonus of the contract price if completed by the 34th month (15% likelihood).

In addition to the potential performance bonus for early completion, Buildings Limited is entitled to a quality bonus of Rs. 2 crores if a health and safety inspector assigns the facility a gold star rating as defined by Radar Limited in terms of the contract. Buildings Limited concludes that it is 60% likely that it will receive the quality bonus.

Analyze and determine the amount of variable consideration Building Limited should recognize in its contract with Radar Company Limited to build a manufacturing facility.

SOLUTION

In determining the transaction price, Buildings Limited separately estimates variable consideration for each element of variability i.e. the early completion bonus and the quality bonus.

Buildings Limited decides to use the expected value method to estimate the variable consideration associated with the early completion bonus because there is a range of possible outcomes and the entity has experience with a large number of similar contracts that provide a reasonable basis to predict future outcomes. Therefore, the entity expects this method to best predict the amount of variable consideration associated with the early completion bonus. Buildings Ltd.'s best estimate of the early completion bonus is Rs. 2.125 crore, calculated as shown in the following table:

Bonus %	Amount of bonus (Rs. in crore)	Probability	Probability-weighted amount (Rs. in crore)
15%	3.75	25%	0.9375
10%	2.50	40%	1.00
5%	1.25	15%	0.1875
0%	-	20%	-
		100%	2.125

Buildings Limited decides to use the most likely amount to estimate the variable consideration associated with the potential quality bonus because there are only two possible outcomes (Rs. 2 crore or Rs. Nil) and this method would best predict the amount of consideration associated with the quality bonus. Buildings Limited



believes the most likely amount of the quality bonus is Rs. 2 crore (because it is 60% likely to receive the bonus).

Total variable consideration = 4.125 crore (2.125 crore + 2 crore).

Q18. (APRIL 21)

Entity AB Ltd. enters into a three-year service contract with a customer CD Ltd. for Rs. 4,50,000 (Rs.1,50,000 per year). The standalone selling price for one year of service at inception of the contract is Rs.1,50,000 per year. AB Ltd. accounts for the contract as a series of distinct services.

At the beginning of the third year, the parties agree to modify the contract as follows:

- (i) the fee for the third year is reduced to Rs.1,20,000; and
- (ii) CD Ltd. agrees to extend the contract for another three years for Rs.3,00,000 (Rs.1,00,000 per year).

The standalone selling price for one year of service at the time of modification is Rs. 1,20,000. How should AB Ltd. account for the modification? Analyze

SOLUTION

Ind AS 115, inter alia, states that, "An entity shall account for a contract modification as a separate contract if **both** of the following conditions are present:

- (a) the scope of the contract increases because of the addition of promised goods or services that are distinct; **AND**
- (b) the price of the contract increases by an amount of consideration that reflects the entity's stand-alone selling prices of the additional promised goods or services and any appropriate adjustments to that price to reflect the circumstances of the particular contract.

In accordance with the above, it may be noted that a contract modification should be accounted for prospectively if the additional promised goods or services are distinct and the pricing for those goods or services reflects their stand-alone selling price.

In the given case, even though the remaining services to be provided are distinct, the modification should **not** be accounted for as a separate contract because the price of the contract did not increase by an amount of consideration that reflects the standalone selling price of the additional services. The modification would be accounted for, from the date of the modification, as if the existing arrangement was terminated and a new contract created (i.e. on a prospective basis) because the remaining services to be provided are distinct.

AB Ltd. should reallocate the remaining consideration to all of the remaining services to be provided (i.e. the obligations remaining from the original contract and the new obligations). AB Ltd. will recognise a total of Rs.4,20,000 (Rs.1,20,000 + Rs.3,00,000) over the remaining four-year service period (one year remaining under the original contract plus three additional years) or Rs.1,05,000 per year.

Q19. (APRIL 21)

A construction services company enters into a contract with a customer to build a water purification plant. The company is responsible for all aspects of the plant including overall project management, engineering and design services, site preparation, physical construction of the plant, procurement of pumps and equipment for measuring and testing flow volumes and water quality, and the integration of all components.

Determine whether the company has a single or multiple performance obligations under the contract?



SOLUTION

Determining whether a good or service represents a performance obligation on its own or is required to be aggregated with other goods or services can have a significant impact on the timing of revenue recognition. While the customer may be able to benefit from each promised good or service on its own (or together with other readily available resources), they do not appear to be separately identifiable within the context of the contract. That is, the promised goods and services are subject to significant integration, and as a result will be treated as a single performance obligation.

This is consistent with a view that the customer is primarily interested in acquiring a single asset (a water purification plant) rather than a collection of related components and services.

Q20. (OCT 21)

Growth Ltd. enters into an arrangement with a customer for an infrastructure outsourcing deal.

Based on its experience, Growth Ltd. determines that customizing the infrastructure will take approximately 200 hours in total to complete the project and charges Rs. 150 per hour.

After incurring 100 hours of time, Growth Ltd. and the customer agree to change an aspect of the project and increase the estimate of labour hours by 50 hours at the rate of Rs. 100 per hour.

Determine how contract modification will be accounted as per Ind AS 115?

SOLUTION

Considering that the remaining goods or services are not distinct, the modification will be accounted for on a cumulative catch-up basis, as given below:

Particulars	Hours	Rate (Rs.)	Amount (Rs.)
Initial contract amount	200	150	30,000
Modification in contract	50	100	5,000
Contract amount after modification	250	140*	35,000
Revenue to be recognised	100	140	14,000
Revenue already booked	100	150	15,000
Adjustment in revenue			(1,000)

*Rs. 35,000 / 250 hours = Rs. 140.

QUESTIONS PAST EXAM PAPERS

Q21. (MAY 19)

Orange Ltd. contracts to renovate a five star hotel including the installation of new elevators on 01.10.2017. Orange Ltd. estimates the transaction price of Rs.480 lakh. The expected cost of elevators is Rs. 144 lakh and expected other costs is Rs.240 lakh. Orange Ltd. purchases elevators and they are delivered to the site six months before they will be installed. Orange Ltd. uses an input method based on cost to measure progress towards completion. The entity has incurred actual other costs of Rs. 48 lakh by 31.03.2018.

How much revenue will be recognised as per relevant Ind AS 115 for the year ended 31st March, 2018, if performance obligation is met over a period of time?

SOLUTION

Cost to be incurred comprises two major components – cost of elevators and cost of construction service.

- (a) The elevators are part of the overall construction project and are not a distinct performance obligation
- (b) The cost of elevators is substantial to the overall project and are incurred well in advance.
- (c) Upon delivery at site, the customer acquires control of such elevators.
- (d) There is no modification done to the elevators, which the company only procures and delivers at site. Nevertheless, as part of materials used in overall construction projects, the company is a principal in the transaction with the customer for such elevators also.

Therefore, applying the guidance on Input method –

- The measure of progress should be based on the percentage of costs incurred relative to the total budgeted costs.
- The cost of elevators should be excluded when measuring such progress & revenue for such elevators should be recognized to the extent of costs incurred.

The revenue to be recognized is measured as follows:

Particulars	Amount (Rs. in lakh)
Transaction price	<u>480</u>
Costs incurred:	
(a) Cost of elevators	144
(b) Other costs	48
Measure of progress	$48 / 240 = 20\%$

Revenue to be recognised:

(Rs. in lakh)

(a) For costs incurred (other than elevators)	Total attributable revenue = $480 - 144 = 336$ % of work completed = 20% Revenue to be recognised = 67.20
(b) Revenue for elevators	(equal to costs incurred) 144
Total revenue to be recognised	$144 + 67.2 = 211.20$

Therefore, for the year ended 31st March, 2018, the company shall recognize revenue of Rs. 211.20 lakhs on the project.



Q24. (NOV 19)

Nivaan Limited commenced work on two long-term contracts during the financial year ended on 31st March, 2019.

The first contract with A & Co. commenced on 1st June, 2018 and had a total sales value of Rs 40 lakh. It was envisaged that the contract would run for two years and that the total expected costs would be Rs 32 lakh. On 31st March, 2019, Nivaan Limited revised its estimate of the total expected cost to Rs 34 lakh on the basis of the additional rectification cost of Rs 2 lakh incurred on the contract during the current financial year. An independent surveyor has estimated at 31st March, 2019 that the contract is 30% complete. Nivaan Limited has incurred costs up to 31st March, 2019 of Rs 16 lakh and has received payments on account of Rs 13 lakh.

The second contract with B & Co. commenced on 1st September, 2018 and was for 18 months. The total sales value of the contract was Rs 30 lakh and the total expected cost is Rs 24 lakh. Payments on account already received were Rs 9.50 lakh and total costs incurred to date were Rs 8 lakh. Nivaan Limited has insisted on a large deposit from B & Co. because the companies had not traded together prior to the contract. The independent surveyor estimated that on 31st March, 2019 the contract was 20% complete.

The two contracts meet the requirement of Ind AS 115 'Revenue from Contracts with Customers' to recognize revenue over time as the performance obligations are satisfied over time.

The company also has several other contracts of between twelve and eighteen months in duration. Some of these contracts fall into two accounting periods and were not completed as at 31st March, 2019. In absence of any financial data relating to the other contracts, you are advised to ignore these other contracts while preparing the financial statements of the company for the year ended 31st March, 2019.

Prepare financial statement extracts for Nivaan Limited in respect of the two construction contracts for the year ending 31st March, 2019.

SOLUTION

Extracts of Balance Sheet of Nivaan Ltd. as on 31st March, 2019

	Rs in lakh
Current Assets	
Contract Assets- Work-in-progress (Refer W.N. 3)	<u>9.0</u>
Current Liabilities	
Contract Liabilities (Advance from customers) (Refer W.N. 2)	<u>4.5</u>

Extracts of Statement of Profit and Loss of Nivaan Ltd. as on 31st March, 2019

	Rs in lakh
Revenue from contracts (Refer W.N. 1)	18
Cost of Revenue (Refer W.N. 1)	<u>(15)</u>
Net Profit on Contracts (Refer W.N. 1)	<u>3</u>

Working Notes:

1. Table showing calculation of total revenue, expenses and profit or loss on contract for the year

Rs in lakh

	A & Co.	B & Co.	Total
Revenue from contracts	$(40 \times 30\%) = 12$	$(30 \times 20\%) = 6$	18
Expenses due for the year	$(34 \times 30\%) = 10.2$	$(24 \times 20\%) = 4.8$	15
Profit or loss on contract	<u>1.8</u>	<u>1.2</u>	<u>3</u>

2. Calculation of amount due from / (to) customers

Rs in lakh

	A & Co.	B & Co.	Total
Billing on the basis of revenue recognised in the books	12	6	18
Payments received from the customers	<u>(13)</u>	<u>(9.5)</u>	<u>(22.5)</u>
Advance received from the customers	<u>1</u>	<u>3.5</u>	<u>4.5</u>

3. Work in Progress recognised as part of contract asset at the end of the year

Rs in lakh

	A & Co.	B & Co.	Total
Total actual cost incurred during the year	16	8	24
Less: Cost recognised in the books for the year 31.3.2019	<u>(10.2)</u>	<u>(4.8)</u>	<u>(15)</u>
Work-in-progress recognised at the end of the year	<u>5.8</u>	<u>3.2</u>	<u>9.0</u>

Alternate Answer -

Additional rectification cost of Rs 2 lakh has been treated as normal cost. Hence total expected cost has been considered as Rs 34 lakh. However, in case this Rs 2 lakh is treated as an abnormal cost, then expense due for the year would be Rs 11.6 lakh (i.e. 30% of Rs 32 lakh + Rs 2 lakh). Accordingly, with respect to A & Co., the profit for the year would be Rs 0.4 lakh and work-in-progress recognised at the end of the year would be Rs 4.4 lakh.

Working Notes:

1. Table showing calculation of total revenue, expenses and profit or loss on contract for the year

year

Rs in lakhs

	A & Co.	B & Co.	Total
Revenue from contracts	12	6	18
Expenses due for the year	<u>11.60</u>	<u>4.80</u>	<u>16.40</u>
Profit or loss on contract	<u>0.40</u>	<u>1.20</u>	<u>1.60</u>

2. Work in Progress recognised as part of contract asset at the end of the year

Rs in lakhs

	A & Co.	B & Co.	Total
Total actual cost incurred during the year	16	8	24
Less: Cost recognised in the books for the year 31.3.2019	<u>(11.60)</u>	<u>(4.80)</u>	<u>(16.40)</u>
Work-in-progress recognised at the end of the year	<u>4.40</u>	<u>3.2</u>	<u>7.60</u>



Q25. (NOV. 20)

ABC Limited supplies plastic buckets to wholesaler customers. As per the contract entered into between ABC Limited and a customer for the financial year 2019-20, the price per plastic bucket will decrease retrospectively as sales volume increases within the stipulated time of one year.

The price applicable for the entire sale will be based on the sales volume bracket during the year.

Price per unit (INR)	Sales volume
90	0 – 10,000 units
80	10,001 – 35,000 units
70	35,001 units & above

All transactions are made in cash.

(i) Suggest how revenue is to be recognised in the books of accounts of ABC Limited as per expected value method, considering a probability of 15%, 75% and 10% for sales volumes of 9,000 units, 28,000 units and 36,000 units respectively. For workings, assume that ABC Limited achieved the same number of units of sales to the customer during the year as initially estimated under expected value method for the financial year 2019-20.

(ii) In case ABC Limited decides to measure revenue, based on the most likely method instead of expected value method, how will the revenue be recognised in the books of accounts of ABC Limited based on above available information? For workings, assume that ABC Limited achieved the same number of units of sales to the customer during the year as initially estimated under most likely value method for the financial year 2019-20

You are required to pass Journal entries in the books of ABC Limited if the revenue is accounted for as per expected value method for financial year 2019-20.

SOLUTION

i) Determination of how revenue is to be recognised in the books of ABC Ltd. as per expected value method

Calculation of probability weighted sales volume

Sales volume (units)	Probability	Probability-weighted sales volume (units)
9,000	15%	1,350
28,000	75%	21,000
36,000	10%	3,600
		25,950

Calculation of probability weighted sales value

Sales volume (units)	Sales price per unit (Rs)	Probability	Probability-weighted sales value (Rs)
9,000	90	15%	1,21,500
28,000	80	75%	16,80,000
36,000	70	10%	2,52,000
			20,53,500

$$\begin{aligned} \text{Average unit price} &= \frac{\text{Probability weighted sales value}}{\text{Probability weighted sales volume}} \\ &= 20,53,500 / 25,950 = \text{Rs.79.13 per unit} \end{aligned}$$

Revenue is recognised at Rs.79.13 for each unit sold. First 10,000 units sold will be booked at Rs.90 per unit and liability is accrued for the difference price of Rs.10.87 per unit (Rs.90 – Rs.79.13), which will be reversed upon subsequent sales of 15,950 units (as the question states that ABC Ltd. achieved the same number of units of sales to the customer during the year as initially estimated under the expected value method for the financial year 2019-2020). For, subsequent sale of 15,950 units, contract liability is accrued at Rs.0.87 (80 – 79.13) per unit and revenue will be deferred.

(ii) Determination of how revenue is to be recognised in the books of ABC Ltd. as per most likely method

Note: It is assumed that the sales volume of 28,000 units given under the expected value method, with highest probability is the sales estimated under the most likely method too.

Transaction price will be:

$$28,000 \text{ units} \times \text{Rs.80 per unit} = \text{Rs.22,40,000}$$

$$\text{Average unit price applicable} = \text{Rs. 80}$$

First 10,000 units sold will be booked at Rs.90 per unit and liability of Rs.1,00,000 is accrued for the difference price of Rs.10 per unit (Rs.90 – Rs.80), which will be reversed upon subsequent sales of 18,000 units (as question states that ABC Ltd. achieved the same number of units of sales to the customer during the year as initially estimated under the most likely method for the financial year 2019-2020).

Note: Alternatively, the question may be solved based on 25,950 units (as calculated under expected value method assuming that the targets were met) as follows:

Transaction price will be:

$$25,950 \text{ units} \times \text{Rs.80 per unit} = \text{Rs.20,76,000}$$

$$\text{Average unit price applicable} = \text{Rs. 80.}$$

First 10,000 units sold will be booked at Rs.90 per unit and liability is accrued for the difference price of Rs.10 per unit (Rs.90 – Rs.80), which will be reversed upon subsequent sales of 15,950 units.

iii. Journal Entries in the books of ABC Ltd.

(when revenue is accounted for as per expected value method for financial year 2019-2020)

			Rs	Rs
1.	Bank A/c (10,000 x Rs 90)	Dr.	9,00,000	
	To Revenue A/c (10,000 x Rs 79.13)			7,91,300
	To Liability (10,000 x Rs 10.87)			1,08,700
	(Revenue recognised on sale of first 10,000 units)			
2.	Bank A/c [(25,950 x Rs 80) - 9,00,000]	Dr.	11,76,000	
	Liability	Dr.	86,124	
	To Revenue A/c (15,950 x Rs 79.13)			12,62,124



	(Revenue recognised on sale of remaining 15,950 units (25,950 - 10,000). Amount paid by the customer will be the balance amount after adjusting the excess paid earlier since, Nthe customer falls now in second slab)		
3.	Liability (1,08,700 - 86,124) Dr.	22,576	
	To Revenue A/c [25,950 x (80-79.13)]		22,576
	(On reversal of liability at the end of the financial year 2019-2020 i.e. after completion of stipulated time)		

Alternatively, in place of first two entries, one consolidated entry may be passed as follows:

Bank A/c (25,950 x Rs.80)	Dr.	20,76,000	
To Revenue A/c (25,950 x Rs.79.13)			20,53,424
To Liability (25,950 x Rs.0.87)			22,576
(Revenue recognised on sale of 25,950 units)			

Note: In 2nd journal entry, it is assumed that the customer had paid balance amount of Rs.11, 76,000 after adjusting excess Rs.1,00,000 paid with first lot of sale of 10,000 unit. However, one can pass journal entry with total sales value of Rs.12,76,000 (15,950 units x Rs.80 per unit) and later on pass third entry for refund. In such a situation, alternatively, 2nd and 3rd entries would be as follows:

Bank A/c (15,950 x Rs 80) Dr.	12,76,000	
To Revenue A/c (15,950 x Rs 79.13)		12,62,124
To Liability		13,876
(Revenue recognised on sale of remaining 15,950 units (25,950 - 10,000))		
Liability (1,08,700 + 13,876) Dr.	1,22,576	
To Revenue A/c [25,950 x (80-79.13)]		22,576
To Bank		1,00,000
(On reversal of liability at the end of the financial year 2019-2020 i.e. after completion of stipulated time and excess amount refunded)		

Q26. (NOV. 20)

An entity negotiates with major airlines to purchase tickets at reduced rates compared with the price of tickets sold directly by the airlines to the public. The entity agrees to buy a specific number of tickets and will pay for those tickets even if it is not able to resell them. The reduced rate paid by the entity for each ticket purchased is negotiated and agreed in advance. The entity determines the prices at which the airline tickets will be sold to its customers. The entity sells the tickets and collects the consideration from customers when the tickets are sold; therefore, there is no credit risk to the entity.

The entity also assists the customers in resolving complaints with the service provided by airlines.



However, each airline is responsible for fulfilling obligations associated with the ticket, including remedies to a customer for dissatisfaction with the service.

Determine whether the entity is a principal or an agent with suitable explanation in light with the provisions given in the relevant standard

SOLUTION

To determine whether the entity's performance obligation is to provide the specified goods or services itself (i.e. the entity is a principal) or to arrange for another party to provide those goods or services (i.e. the entity is an agent), the entity considers the nature of its promise as per Ind AS 115.

The entity determines that its promise is to provide the customer with a ticket, which provides the right to fly on the specified flight or another flight if the specified flight is changed or canceled. The entity considers the following indicators for assessment as principal or agent under the contract with the customers:

- a) The entity is primarily responsible for fulfilling the contract, which is providing the right to fly. However, the entity is not responsible for providing the flight itself, which will be provided by the airline.
- b) The entity has inventory risk for the tickets because they are purchased before they are sold to the entity's customers and the entity is exposed to any loss as a result of not being able to sell the tickets for more than the entity's cost.
- c) The entity has discretion in setting the sales prices for tickets to its customers.

The entity concludes that its promise is to provide a ticket (i.e. a right to fly) to the customer.

On the basis of the indicators, the entity concludes that it controls the ticket before it is transferred to the customer. Thus, the entity concludes that it is a principal in the transaction and recognizes revenue in the gross amount of consideration to which it is entitled in exchange for the tickets transferred.

Q27. (JAN. 21)

A Ltd. is a company which is in the business of manufacturing engineering machines and providing after sales services. The company entered into a contract with Mr. Anik to supply and install a machine, namely 'model pi' on 1st April 2018 and to service this machine on 30th September 2018 and 1st April 2019. The cost of manufacturing the machine to A Ltd. was Rs. 1,60,000.

It is possible for a customer to purchase both the machine 'model pi' and the maintenance services separately. Mr. Anik is contractually obliged to pay A Ltd Rs. 4,00,000 on 1st April, 2019.

The prevailing rate for one-year credit granted to trade customers in the industry is 5 percent per six-month period. As per the experience, the servicing of the machine 'model pi' sold to Mr. Anik is expected to cost A Ltd. Rs. 30,000 to perform the first service and Rs. 50,000 to perform the second service. Assume actual costs equal expected costs. When A Ltd. provides machine services to customers in a separate transaction it earns a margin of 50% on cost. On 1st April, 2018, the cash selling price of the machine 'model pi' sold to Mr. Anik was Rs. 2,51,927.

The promised supply of machine 'model pi' and maintenance service obligations are satisfactorily carried out in time by the company.

You are required to:

- (i) Segregate the components of the transaction that A Ltd. shall apply to the revenue recognition criteria separately as per Ind AS 115;



- (ii) Calculate the amount of revenue which A Ltd. must allocate to each component of the transaction;
- (iii) Prepare journal entries to record the information set out above in the books of accounts of A Ltd. for the years ended 31st March-2019 and 31st March 2020; and
- (iv) Draft an extract showing how revenue could be presented and disclosed in the financial statements of A Ltd. for the year ended 31st March 2019 and 31st March 2020.

SOLUTION

i) As per Ind AS 115, a good or service that is promised to customer is distinct if both of the following criteria are met:

- a) The customer can benefit from the good or service either on its own or together with other resources that are readily available to them. A readily available resource is a good or service that is sold separately (by the entity or another entity) or that the customer has already obtained from the entity or from other transactions or events; and
- b) The entity's promise to transfer the goods or service to the customer is separately identifiable from other promises in the contract.

Factors that indicate two or more promise to transfer goods or services to a customer are separately identifiable include, but are not limited to, the following:

- a) Significant integration services are not provided (i.e. the entity is not using the goods or services as inputs to produce or deliver the combined output called for in the contract)
- b) The goods or services do not significantly modify or customize other promised goods or services in the contract.
- c) The goods or services are not highly inter-dependent or highly interrelated with other promised goods or services in the contract.

Accordingly, on 1st April, 2018, entity A entered into a single transaction with three identifiable separate components:

1. Sale of goods (i.e. engineering machine);
2. Rendering of services (i.e. engineering machine maintenance service on 30th September, 2018 and 1st April, 2019); and
3. Providing finance (i.e. sale of engineering machine and rendering of services on extended period credit)

iv. Calculation and allocation of revenue to each component of the transaction.

Date	Opening balance	Finance income	Goods	Services	Payment Received	Closing balance
1st April, 2018	-	-	2,51,927			2,51,927
30th September, 2018	2,51,927	12,596 (Note 1)	-	45,000 (30,000 + 50%)	-	3,09,523
31st March 2019	3,09,523	15,477 (Note 2)	-	-	-	3,25,000
1st April, 2019	3,25,000	-	-	75,000 (50,000 + 50%)	(4,00,000)	

Notes:

Calculation of finance income as on 30th September, 2018

$$= 5\% \times 2,51,927 = \text{Rs. } 12,596$$



Calculation of finance income as on 31st March, 2018

$$= 5\% \times 3,09,523 = \text{Rs. } 15,477$$

v.

Journal Entries

Date	Particulars	Dr.	Cr.
1st April, 2018	Mr. Anik Dr. To Revenue- sale of goods (Profit or Loss A/c) (Being revenue recognized from the sale of the machine on credit)	2,51,927	2,51,927
	Cost of goods sold (Profit or loss) Dr. To Inventories (Being costs of goods sold recognized)	1,60,000	1,60,000
30th September 2018	Mr. Anik Dr. To Finance Income (Profit or loss) (Being finance income recognized)	12,596	
	Mr. Anik Dr. To Revenue- rendering of services (Profit or loss) (Being revenue from the rendering of maintenance services recognized)	45,000	45,000
	Cost of services (Profit or loss) Dr. To Cash/Bank or payables (Being the cost of performing maintenance services recognised)	30,000	
31st March 2019	Mr. Anik Dr. To Finance Income (Profit or loss) (Being finance income recognised)		30,000
1st April, 2019	Mr. Anik Dr. To Revenue- rendering of services (Profit or loss) (Being revenue from the rendering of maintenance services recognised)	15,477	15,477
	Cost of services (Profit or loss) Dr. To Cash/Bank or payables (Being the cost of performing maintenance services recognized)	75,000	75,000
	Cash/ Bank Dr. To Mr. Anik (Being the receipt of cash from the customer recognized)	50,000	50,000
		4,00,000	4,00,000

vi. Extract of Notes to the financial statements for the year ended 31st March, 2019 and 31st March 2020

	2019-2020	2018-2019
	Rs.	Rs.
Sale of goods	-	2,51,927
Rendering of machine- maintenance services	75,000	45,000
Finance income (12,596 + 15,477)	-	28,073
	75,000	3,25,000

Q28. (JULY. 21)

GTM Limited has provided the following 4 independent scenarios. You are advised to respond to the queries mentioned at the end of each scenario. Support your answer with the relevant extracts of the applicable Ind AS.

Scenario 1

GTM Limited enters into a contract with a customer to sell product G, T and M in exchange for Rs. 1,90,000. GTM Limited will satisfy the performance obligations for each of the product at different points in time. GTM Limited regularly sells product G separately and therefore the stand-alone selling price is directly observable. The stand- alone selling prices of product T and M are not directly observable.

Because the stand-alone selling prices for Product T and M are not directly observable, the Company has to estimate them. To estimate the stand-alone selling prices, the Company uses the adjusted market assessment approach for product T and the expected cost plus a margin approach for product M. In making these estimates, the Company maximizes the use of observable inputs.

The entity estimated the stand -alone selling prices as follows:

Product	Stand-alone selling price (Rs.)
Product G	90,000
Product T	44,000
Product M	66,000
Total	2,00,000

Determine the transaction price allocated to each Product.

Scenario 2

GTM Limited regularly sells Products G, T and M individually. The standalone selling prices are as under:

Product	Stand-alone selling price (Rs.)
Product G	90,000
Product T	44,000
Product M	66,000
Total	2,00,000

In addition, the Company regularly sells Products T and M together for Rs. 1,00,000.

The Company enters into a contract with another customer to sell Products G, T and M in exchange for Rs. 1,90,000. GTM Limited will satisfy the performance obligations for each of the products at different points in time; or Product T and M at same point in time.

Determine the allocation of transaction price to Product T and M.

Scenario 3

GTM Limited enters into a contract with a customer to sell products G, T and M as described in scenario 2. The contract also includes a promise to transfer product 'Hope'. Total consideration in the contract is Rs. 2,40,000. The stand-alone selling price for product 'Hope' is highly variable because the company sells Product 'Hope' to different customers for a broad range of amounts (Rs. 40,000 to Rs. 65,000).

Determine the selling price of Products G, T, M and Hope using the residual approach.

Scenario 4

The same facts as in scenario 3 applies to scenario 4 except that the transaction price is Rs. 2,25,000 instead of Rs. 2,40,000.

Discuss how the transaction price should be allocated.

SOLUTION

Scenario 1

The customer receives a discount for purchasing the bundle of goods because the sum of the stand-alone selling prices (Rs. 2,00,000) exceeds the promised consideration (Rs. 1,90,000). The entity considers that there is no observable evidence about the performance obligation to which the entire discount belongs. The discount is allocated proportionately across Products G, T and M. The discount, and therefore the transaction price, is allocated as follows:

Product	Allocated transaction price	
	Rs.	
Product G	85,500	(Rs. 90,000 ÷ Rs. 2,00,000 × Rs. 1,90,000)
Product T	41,800	(Rs. 44,000 ÷ Rs. 2,00,000 × Rs. 1,90,000)
Product M	62,700	(Rs. 66,000 ÷ Rs. 2,00,000 × Rs. 1,90,000)
Total	1,90,000	

Scenario 2

The contract includes a discount of Rs. 10,000 on the overall transaction, which would be allocated proportionately to all three performance obligations when allocating the transaction price using the relative stand-alone selling price method.

However, because the entity regularly sells Products T and M together for Rs. 1,00,000 and Product G for Rs. 90,000, it has evidence that the entire discount of Rs. 10,000 should be allocated to the promises to transfer Products T and M in accordance with paragraph 82 of Ind AS 115.

If the entity transfers control of Products T and M at the same point in time, then the entity could, as a practical matter, account for the transfer of those products as a single performance obligation. That is, the entity could allocate Rs. 90,000 of the transaction prices to the single performance obligation of G and recognise revenue of Rs. 1,00,000 when Products T and M simultaneously transfer to the customer.

If the contract requires the entity to transfer control of Products T and M at different points in time, then the allocated amount of Rs. 1,00,000 is individually allocated to the promises to transfer Product T (stand-alone selling price of Rs. 44,000) and Product M (stand-alone selling price of Rs. 66,000) as follows:

Product	Allocated transaction price	
	Rs.	
Product T	40,000	(Rs. 44,000 ÷ Rs. 1,10,000 total stand-alone selling price × Rs. 1,00,000)
Product M	60,000	(Rs. 66,000 ÷ Rs. 1,10,000 total stand-alone selling price × Rs. 1,00,000)
Total	1,00,000	

Scenario 3

Before estimating the stand-alone selling price of Product Hope using the residual approach, the entity determines whether any discount should be allocated to the other performance obligations in the contract.

As in Scenario 2, because the entity regularly sells Products T and M together for Rs. 1,00,000 and Product G for Rs. 90,000, it has observable evidence that Rs. 1,90,000 should be allocated to those three products and Rs. 10,000 discount should be allocated to the promises to transfer Products T and M in accordance with paragraph 82 of Ind AS 115.

Using the residual approach, the entity estimates the stand-alone selling price of Product Hope to be Rs. 50,000 as follows:

Product	Stand-alone selling price	Method
	Rs.	
Product G	90,000	Directly observable
Products T and M	1,00,000	Directly observable with discount
Product Hope	50,000	Residual approach
Total	2,40,000	

The entity observes that the resulting Rs. 50,000 allocated to Product Hope is within the range of its observable selling prices (Rs. 40,000 to Rs. 65,000).

Scenario 4

The same facts as in Scenario 3 apply to Scenario 4 except the transaction price is Rs. 2,25,000 instead of Rs. 2,40,000. Consequently, the application of the residual approach would result in a stand-alone selling price of Rs. 35,000 for Product Hope (Rs. 2,25,000 transaction price less Rs. 1,90,000 allocated to Products G, T and M).

The entity concludes that Rs. 35,000 would not faithfully depict the amount of consideration to which the entity expects to be entitled in exchange for satisfying its performance obligation to transfer Product Hope, because Rs. 35,000 does not approximate the stand-alone selling price of Product Hope, which ranges from Rs. 40,000 to Rs. 65,000.

Consequently, the entity reviews its observable data, including sales and margin reports, to estimate the stand-alone selling price of Product Hope using another suitable method. The entity allocates the transaction price of Rs. 2,25,000 to Products G, T, M and Hope using the relative stand-alone selling prices of those products in accordance with paragraphs 73–80 of Ind AS 115.

Q29 (Dec 21 – 10 Marks)

An entity has a fixed fees contract for Rs 22,00,000 to develop a product that meets specified performance criteria. Estimated cost to complete the contract is Rs 20,00,000. The entity will transfer control of the product over five years, and the entity uses the cost-to-cost input method to measure progress on the contract. An incentive award is available if the product meets the following weight criteria:

Weight (kg)	Award % of fixed fee	Incentive fee
951 or greater	0%	—
701-950	10%	Rs 2,20,000
700 or less	25%	Rs 5,50,000

The entity has extensive experience creating products that meet the specific performance criteria. Based on its experience, the entity has identified five engineering alternatives that will achieve the 10 percent incentive and two that will achieve the 25 percent incentive. In this case, the entity determined that it has 90 percent confidence that it will achieve the 10 percent incentive and has 10 percent confidence that it will achieve the 25 percent incentive.

Based on this analysis, the entity believes 10 percent to be the most likely amount when estimating the transaction price. Therefore, the entity includes only the 10 percent award in the transaction price when calculating revenue because the entity has concluded it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved due to its 90 percent confidence in achieving the 10 percent award.

The entity reassesses its production status quarterly to determine whether it is on track to meet the criteria for the incentive award. At the end of year four, it becomes apparent that this contract will fully achieve the weight-based criterion. Therefore, the entity revises its estimate of variable consideration to include the entire 25 percent incentive fee in the year four because, at this point, it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when including the entire variable consideration in the transaction price.

Evaluate the impact of changes in variable consideration when cost incurred is as follows:

Year	Rs
1	1,20,000
2	3,70,000
3	8,20,000
4	5,70,000
5	1,20,000

Calculate yearly revenue, operating profit and margin (%). For simplification purposes, calculate revenue for the year independently based on costs incurred during the year divided by total expected costs, with the assumption that total expected costs do not change.

Solution

Note: For simplification purposes, the table calculates revenue for the year independently based on costs incurred during the year divided by total expected costs, with the assumption that total expected costs do not change.

<u>Particulars</u>	<u>Reference</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Fixed Consideration	A	22,00,000				
Estimated costs to complete*	B	20,00,000				
Total estimated variable Consideration	C	2,20,000	2,20,000	2,20,000	5,50,000	5,50,000
Costs	D	1,20,000	3,70,000	8,20,000	5,70,000	1,20,000
Fixed revenue	$E=A \times D/B$	1,32,000	4,07,000	9,02,000	6,27,000	1,32,000
Variable revenue	$F=C \times D/B$	13,200	40,700	90,200	1,56,750	33,000
Cumulative catch-up Adjustment	G (W.N. 1)	-	-	-	2,16,150	-
Total revenue	$H=E+F+G$	1,45,200	4,47,700	9,92,200	9,99,900	1,65,000
Operating profit	$I=G-H$	25,200	77,700	1,72,200	4,29,900	45,000
Margin (rounded off)	$J=I/G$	17.36%	17.36%	17.36%	43%	27.27%

* For simplicity, it is assumed there is no change to the estimated costs to complete throughout the contract period.

* In practice, under the cost-to-cost measure of progress, total revenue for each period is determined by multiplying the total transaction price (fixed and variable) by the ratio of cumulative cost incurred to total estimated costs to complete, less revenue recognized to date.

W.N. 1

Calculation of cumulative catch-up adjustment:			
Updated variable consideration	L		5,50,000
Percent complete in Year 4: (rounded off)	$M=N/O$		94%
Cumulative costs through Year 4	N	18,80,000	
Estimated costs to complete	O	20,00,000	
Cumulative variable revenue through Year 4:	P		3,00,850
Cumulative catch-up adjustment	$F=L \times M-P$		2,16,150