

Note: 1) Question No. 1 is compulsory. Answer any four questions out of five questions.

2) Working Notes should form part of your answer.

3) Start New Question on new page.

QUESTION NO. 1

(A)

Following figures have been extracted from the books of M/s. RST Private Limited :

Financial Year	Sales (Rs.)	Profit/Loss (Rs.)
2016 – 17	4,00,000	15,000 (loss)
2017 – 18	5,00,000	15,000(Profit)

You are required to calculate:

- (i) **Profit Volume Ratio**
- (ii) **Fixed Costs**
- (iii) **Break Even Point**
- (iv) **Sales required to earn a profit of Rs.45,000.**
- (v) **Marginal of Safety in Financial Year 2017 – 18.**

(5 MARKS)

(B)

Beta Ltd. is manufacturing Product N. This is manufactured by mixing two materials namely Material P and Material Q. The Standard Cost of Mixture is as under :

Material P 150 ltrs. @ Rs. 40 per Ltr.

Material Q 100 ltrs. @ Rs. 60 per ltr.

Standard loss @ 20 of total input is expected during production.

The cost records for the period exhibit following consumption :

Material P 140 ltrs. @ Rs. 42 per ltr,

Material Q 110 ltrs. @ Rs. 56 per ltr.

Quantity produced was 195 ltrs.

Calculate :

- (i) **Material Cost Variance**
- (ii) **Material Usage Variance**
- (iii) **Material Price Variance**

(5 MARKS)

(C)

In an Oil Mill four products emerge from a refining process. The total cost of input during the quarter ending March 20X8 is Rs. 1,48,000. The output, sales and additional processing costs are as under :

Products	Output in Litres	Additional processing cost after split off (Rs.)	Sales Value (Rs.)
ACH	8,000	43,000	1,72,500
BCH	4,000	9,000	15,000
CSH	2,000	-	6,000
DSH	4,000	1,500	45,000

In case these products were disposed – off at the split off point that is before further processing, the selling price per litre would have been :

ACH (Rs.)	BCH (Rs.)	CSH (Rs.)	DSH (Rs.)
15.00	6.00	3.00	7.50

PRODUCE a statement of profitability based on :

- (i) **If the products are sold after further processing is carried out in the mill.**
- (ii) **If they are sold at the split off point.**

(5 MARKS)

(D)

A Ltd. manufactures a product X which requires two raw materials A and B in a ratio of 1:4. The sales department has estimated a demand of 5,00,000 units for the product for the year. To produce one unit of finished product, 4 units of material A is required.

Stock position at the beginning of the year is as below:

Product- X 12,000 units

Material A 24,000 units

Material B 52,000 units

To place an order the company has to spend Rs.15,000. The company is financing its working capital using a bank cash credit @13% p.a. Product X is sold at Rs.1,040 per unit. Material A and B are purchased at Rs.150 and Rs.200 respectively.

Required:

COMPUTE economic order quantity (EOQ):

- (i) **If purchase order for the both materials is placed separately.**
- (ii) **If purchase order for the both materials is not placed separately.**

(5 MARKS)

QUESTION NO 2.**(A)**

Following information relate to a manufacturing concern for the year ended 31st March, 2018 :

	Rs.
Raw Material (opening)	2,28,000
Raw Material (closing)	3,05,000
Purchases of Raw Material	42,25,000
Freight Inwards	1,00,000
Direct wages paid	12,56,000
Direct wages – outstanding at the end of the year	1,50,000
Factory Overheads	20% of prime cost
Work – in – progress (opening)	1,92,500
Work – in – Progress (closing)	1,40,700
Administrative Overheads (related to production)	1,73,000
Distribution Expenses	Rs. 16 per unit
Finished Stock (opening) – 1217 Units	6,08,500
Sale of scrap of material	8,000

The firm produced 14,000 units of output during the year. The stock of finished goods at the end of the year is valued at cost of production. The firm sold 14153 units at a price of Rs. 618 per unit during the year.

Prepare **cost sheet** of the firm.

(10 MARKS)

(B) Star Ltd. manufactures chemical solutions for the food processing industry. The manufacturing takes place in a number of processes and the company uses FIFO method to value work-in-process and finished goods. At the end of the last month, a fire occurred in the factory and destroyed some of papers containing records of the process operations for the month.

Star Ltd. needs your help to prepare the process accounts for the month during which the fire occurred. You have been able to gather some information about the month's operating activities but some of the information could not be retrieved due to the damage.

The following information was salvaged:

- Opening work-in-process at the beginning of the month was 1,600 litres, 70% complete for labour and 60% complete for overheads. Opening work-in-process was valued at Rs. 1,06,560.
- Closing work-in-process at the end of the month was 320 litres, 30% complete for labour and 20% complete for overheads.

- Normal loss is 10% of input and total losses during the month were 1,200 litres partly due to the fire damage.
- Output sent to finished goods warehouse was 8,400 litres.
- Losses have a scrap value of Rs.15 per litre.
- All raw materials are added at the commencement of the process.
- The cost per equivalent unit (litre) is Rs.78 for the month made up as follows:

	(Rs.)
Raw Material	46
Labour	14
Overheads	18
	78

Required:

- CALCULATE the quantity (in litres) of raw material inputs during the month.**
- CALCULATE the quantity (in litres) of normal loss expected from the process and the quantity (in litres) of abnormal loss / gain experienced in the month.**
- CALCULATE the values of raw material, labour and overheads added to the process during the month.**
- PREPARE the process account for the month.**

(10 MARKS)

QUESTION NO 3.

(A)

PQR Pens Ltd. manufactures two products – ‘Gel Pen’ and ‘Ball Pen’. It furnishes the following data for the year 2017 :

Product	Annual Output (Units)	Total Machine Hours	Total number of Purchas orders	Total number of set - upts
Gel Pen	5,500	24,000	240	30
Ball Pen	24,000	54,000	448	56

The annual overheads are as under :

Particulars	Rs.
Volume related activity costs	4,75,020
Set up related costs	5,79,988
Purchase related costs	5,04,992

Calculate the overhead cost per unit of each Product – Gel Pen and Ball Pen on the basis of :

- (i) **Traditional method of charging overheads**
- (ii) **Activity based costing method and**
- (iii) **Find out the difference in cost per unit between both the methods.**

(10 MARKS)

(B)

Arnav Confectioners (AC) owns a bakery which is used to make bakery items like pastries, cakes and muffins. AC use to take at least 50 units of any item at a time. A customer has given an order for 600 cakes. To Process a batch, the following cost would be incurred :

Direct materials	Rs. 5,000
Direct wages	Rs. 500 (irrespective of units)
Oven set – up cost	Rs. 750 (irrespective of units)

AC absorbs production overheads at a rate of 20% of direct wages cost. 10% is added to the total production cost of each batch of allow for selling, distribution and administration overheads.

AC requires a profit margin of 25% of sales value.

Required :

- (i) **DETERMINE the price to be charged for 600 cakes**
- (ii) **CALCULATE cost and selling price per cake.**
- (iii) **DETERMINE what would be selling price per unit If the order is for 605 cakes.**

(10 MARKS)

QUESTION NO 4.

(A)

As of 31st March, 2018, the following balances existed in a firm's cost ledger, which is maintained separately on a double entry basis :

	Debit (Rs.)	Credit (Rs.)
Stores Ledger Control A/c.	3,20,000	-
Work – in – process Control A/c.	1,52,000	-
Finished Goods Control A/c.	2,56,000	-
Manufacturing Overhead Control A/c.	-	28,000
Cost Ledger Control A/c.	-	7,00,000
	7,28,000	7,28,000

During the next quarter, the following items arose :

	(Rs.)
Finished Product (at cost)	2,35,500
Manufacturing overhead incurred	91,000
Raw material purchased	1,36,000
Factory wages	48,000
Indirect labour	20,600
Cost of sales	1,68,000
Materials issued to production	1,26,000
Sales returned (at cost)	8,000
Materials returned to suppliers	11,000
Manufacturing overhead charged to production	86,000

Required :

PREPARE the Cost Ledger Control A/c, Stores Ledger Control A/c, Work – in – process Control A/c, Finished Stock Ledger Control A/c, Manufacturing Overhead Control A/c, Wages Control A/c, Cost of Sales A/c and the Trial Balance at the end of the quarter as per costing records.

(10 MARKS)

(B)

AD Higher Secondary School (AHSS) offers courses for 11th & 12th standard in three streams i.e. Arts, Commerce and Science. AHSS runs higher secondary classes alongwith primary and secondary classes but for accounting purpose it treats higher secondary as a separate responsibility centre. The Managing committee of the school wants to revise its fee structure for higher secondary students. The accountant of the school has provided the following details for a year:

	Amount (Rs.)
Teachers' salary (15 teachers × Rs.35,000 × 12 months)	63,00,000
Principal's salary	14,40,000
Lab attendants' salary (2 attendants × Rs.15,000 × 12 months)	3,60,000
Salary to library staff	1,44,000
Salary to peons (4 peons × Rs.10,000 × 12 months)	4,80,000
Salary to other staffs	4,80,000
Examinations expenditure	10,80,000
Office & Administration cost	15,20,000
Annual day expenses	4,50,000
Sports expenses	1,20,000

Other information:

(i)

	Standard 11 & 12			Primary & Secondary
	Arts	Commerce	Science	
No. of students	120	360	180	840
Lab classes in a year	0	0	144	156
No. of examinations in a year	2	2	2	2
Time spent at library per student per year	180 hours	120 hours	240 hours	60 hours
Time spent by principal for administration	208 hours	312 hours	480 hours	1,400 hours
Teachers for 11 & 12 standard	4	5	6	-

- (ii) One teacher who teaches economics for Arts stream students also teaches commerce stream students. The teacher takes 1,040 classes in a year, it includes 208 classes for commerce students.
- (iii) There is another teacher who teaches mathematics for Science stream students also teaches business mathematics to commerce stream students. She takes 1,100 classes a year, it includes 160 classes for commerce students.
- (iv) One peon is fully dedicated for higher secondary section. Other peons dedicate their 15% time for higher secondary section.
- (v) All school students irrespective of section and age participate in annual functions and sports activities.

Requirement:

- (a) **CALCULATE cost per student per annum for all three streams.**
- (b) **If the management decides to take uniform fee of Rs. 1,000 per month from all higher secondary students, CALCULATE stream wise profitability.**
- (c) **If management decides to take 10% profit on cost, COMPUTE fee to be charged from the students of all three streams respectively.**

(10 MARKS)**QUESTION NO 5.****(A)**

V Ltd. produces and markets a very popular product called 'X'. The company is interested in presenting its budget for the second quarter of 2019.

The following information are made available for this purpose:

- (i) It expects to sell 50,000 bags of 'X' during the second quarter of 2019 at the selling price of Rs. 900 per bag.
- (ii) Each bag of 'X' requires 2.5 kgs. of a raw – material called 'Y' and 7.5 kgs. of raw – material called 'Z'.
- (iii) Stock levels are planned as follows:

Particulars	Beginning of Quarter	End of Quarter
Finished Bags of 'X' (Nos.)	15,000	11,000
Raw – Material 'Y' (Kgs.)	32,000	26,000
Raw – Material 'Z' (Kgs.)	57,000	47,000
Empty Bag (Nos.)	37,000	28,000

- (iv) 'Y' cost Rs.120 per Kg., 'Z' costs Rs.20 per Kg. and 'Empty Bag' costs Rs.80 each.
- (v) It requires 9 minutes of direct labour to produce and fill one bag of 'X'. Labour cost is Rs.50 per hour.
- (vi) Variable manufacturing costs are Rs.45 per bag. Fixed manufacturing costs Rs.30,00,000 per quarter.
- (vii) Variable selling and administration expenses are 5% of sales and fixed administration and selling expenses are Rs.20,50,000 per quarter.

Required

- (i) **PREPARE a production budget for the said quarter.**
- (ii) **PREPARE a raw – material purchase budget for 'Y', 'Z' and 'Empty Bags' for the said quarter in quantity as well as in rupees.**
- (iii) **COMPUTE the budgeted variable cost to produce one bag of 'X'.**
- (iv) **PREPARE a statement of budgeted net income for the said quarter and show both per unit and total cost data.**

[10 Marks]

(B)

A worker takes 15 hours to complete a piece of work for which time allowed is 20 hours. His wage rate is Rs. 5 per hour. Following additional information are also available :

Material cost of work	Rs. 50
Factory overheads	100% of wages

Calculate the factory cost of work under the following methods of wage payments :

- (i) **Rowan Plan**
- (ii) **Halsey Plan**

(5 Marks)

(C)

A contractor prepares his accounts for the year ending 31st December each year.

He commenced a contract on 1st April, 20X8. The following information relates to the contract as on 31st December, 20X8:

	(Rs.)
Material issued	2,51,000
Wages	5,65,600
Salary to Foreman	81,300

A machine costing Rs. 2,60,000 has been on the site for 146 days, its working life is estimated at 7 years and its final scrap value at Rs. 15,000.

A supervisor, who is paid Rs. 8,000 p.m. has devoted one-half of his time to this contract.

All other expenses and administration charges amount to Rs. 1,36,500.

Material in hand at site costs Rs. 35,400 on 31st December, 20X8.

The contract price is Rs. 20,00,000. On 31st December, 20X8 two-third of the contract was completed. The architect issued certificates covering 50% of the contract price, and the contractor had been paid Rs. 7,50,000 on account.

PREPARE Contract A/c and show the notional profit or loss as on 31st December, 20X8.

(5 Marks)

QUESTION NO 6.

Answer any four question:

(A) Why are cost and management accounting information are required by the staff at operational level? Describe.

(b) Explain 'Just In Time'(JIT) approach of inventory management.

(C) "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system?" Explain.

(D) Explain the difference between Cost Control and Cost Reduction.

(E) EXPLAIN the meaning of Budget Manual.

(5×4=20 Marks)