Q.1: Explain Centralized purchasing & Decentralized Purchasing. **(5 Marks)**

Q.2: The inventory records of Sunil Brothers, Delhi, for the year 2016 show the following figures:

Material	Opening Stock	Purchases	Closing Stock
A	700 kg	11,500 kg	200 kg
B	200 litres	11,000 litres	1,200 litres
C	1,000 kg	1,800 kg	1,200 kg

The inventory is valued @ Re.1 per kg or litre. **Calculate** the material turnover ratios regarding each of these materials and express in number of days the average inventory held. What inference do you draw? **(5 Marks)**

Q.3: Mr. Arun commence manufacture of toy trains on 1st January, 2009. His trading account for the first year is as follows:

Particulars	Units	Amount (₹)	Amount (₹)
Sales	1,00,000		4,50,00,000
Less: Cost of Sales:			
Opening stock of raw materials		NIL	
Add: Purchases		4,50,00,000	
Less: Closing Stock		(45,00,000)	
Raw material consumed		4,05,00,000	
Add: Labor		1,44,00,000	
Add: Production overhead		72,00,000	
Cost of production	1,60,000	6,21,00,000	
Less: closing stock	(60,000)	(2,16,00,000)	(4,05,00,000)
Gross profit	1,00,000		45,00,000

Additional information:

1. Stocks of both raw materials and finished goods have increased uniformly over the year;
2. The raw materials content of finished goods is ₹ 225 per unit;
3. Mr. Arun was ill during August 2009 when he received an order for 12,000 units which was held up by stock shortage and were subsequently cancelled. He had further orders for 8,000 units on his books at the year end.

   (i) Calculate the following ratios:

   (1) Inventory turnover for raw material **(2)** Inventory turnover for finished goods;

   (3) Input-output ratio for raw materials; **(4)** Stock-out ratio,

   (ii) Comment briefly on the above ratios. **(10 Marks)**

Q.4: XYZ Limited has capacity to produce 5000 tons of a product in a year. The product passes through two departments P and Q. The sales forecast for the next year is full utilization of production capacity in the following customer mix: -

Mr. X : 3000 tons at ₹ 1,80,000 per ton	**Mr. Y** : 2000 tons at ₹ 2,00,000 per ton

The company has option to buy raw material from any one or more of the following three suppliers: -

(a) Supplier L is prepared to supply 3800 tons of material @ ₹ 65,000 per ton.

(b) Supplier M offers to supply 4000 tons of material @ ₹ 60,000 per ton.

(c) Supplier N offers to supply @ ₹ 70,000 per ton and agrees to give a discount of 5% and also bear entire transport cost subject to the condition that the entire input requirement is purchased from him.

The cost of transporting materials from supplier's premises to XYZ Limited is ₹ 3,000 per ton in case of purchases from L and ₹ 5,000 per ton in case of M. Average scrap in production Department P is 5% and in Department Q 10% of the final output. The scrap of Department P realises ₹ 20,000 per ton and that of Department Q ₹ 25,000 per ton.

Budgeted costs for the two departments for the next year are:-

Departments	P (₹)	Q (₹)
Direct Labour	20,00,000	50,00,000
Overheads	60,00,000	1,50,00,000

Calculate: -

(a) The gross quantity of material input to be purchased.

(b) The selection of the source of procurement and net per ton cost of procurement.

(c) The total profit for the next year assuming that the distribution cost is 10% of cost of production. **(10Marks)**