

## CHAPTER-12

### SERVICE OR OPERATING COSTING

#### BUS

- Q1. [SMN2]** AXA Passenger Transport Company is running 5 buses between two towns, which are 40 kms apart. Seating capacity of each bus is 40 passengers. Following details are available from their books, for the month of April 20X7:

	Amount (Rs.)
Salary of Drivers, Cleaners and Conductors	24,000
Salary to Supervisor	10,000
Diesel and other Oil	40,000
Repairs and Maintenance	8,000
Taxation and Insurance	16,000
Depreciation	26,000
Interest	20,000
	1,44,000

Actual passengers carried were 75% of the seating capacity. All the four buses run on all days for the month. Each bus made one round trip per day Calculate cost per passenger — Kilometer

- Q2. [SMN3]** ABC Transport Company has given a route 40 kilometers long to run bus.
- (a) The bus costs the company a sum of Rs.10,00,000.
  - (b) It has been insured at 3% p. a. and
  - (c) The annual tax will amount to Rs.20,000
  - (d) Garage rent is Rs.2,000 per month.
  - (e) Annual repairs will be Rs.20,000
  - (f) The bus is likely to last for 5 years
  - (g) The driver's salary will be Rs.3,000 per month and the conductor's salary will be Rs.2,000 per month in addition to 10% of takings as commission (To be shared by the driver and conductor equally).
  - (h) Cost of stationery will be Rs.1,000 per month.
  - (i) Manager-cum-accountant's salary is Rs.7,000 per month.
  - (j) Petrol and oil will be Rs.500 per 100 kilometers.
  - (k) The bus will make 3 up and down trips carrying on an average 40 passengers on each trip.
  - (l) The bus will run on an average 25 days in a month.

Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger

**Q3. (PM).** Calculate total passenger kilometers from the following information :

Number of buses 6, number of days operating in a month 25, trips made by each bus per day 8, distance covered 20 kilometres (one side), capacity of bus 40 passengers, normally 80% of capacity utilization.

**Q4.** A mini-bus, having a capacity of 32 passengers, operates between two places - 'A' and 'B'. The distance between the place 'A' and place 'B' is 30 km. The bus makes 10 round trips in a day for 25 days in a month. On an average, the occupancy ratio is 70% and is expected throughout the year.

The details of other expenses are as under:

**Amount (Rs.)**

Insurance	15,600	Per annum
Garage Rent	2,400	Per quarter
Road Tax	5,000	Per annum
Repairs	4,800	Per quarter
Salary of operating staff	7,200	Per month
Tyres and Tubes	3,600	Per quarter
Diesel: (one litre is consumed for every 5 km)	13	Per litre
Oil and Sundries	22	Per 100 km run
Depreciation	68,000	Per annum

Passenger tax @ 22% on total taking is to be levied and bus operator requires a profit of 25% on total taking.

Prepare operating cost statement on the annual basis and find out the cost per passenger kilometer and one way fare per passenger.

**[ICAI-M15/3(A)][M-8][INTER/N18/4(B)-Similar]**

**Q5. (SMP2-Similar/A10).** A Company is considering three alternative proposals for conveyance facilities for its sales personnel who have to do considerable travelling, approximately 20,000 kilometers every year.

The proposals are as follows:

- Purchase and maintain its own fleet of cars. The average cost of a car is Rs.1,00,000.
- Allow the executive to use his own car and reimburse expenses at the rate of Rs. 1.60 paise per kilometer and also bear insurance costs.
- Hire cars from an agency at Rs.20,000 per year per car. The company will have to bear costs of petrol, taxes and tyres.

The following further details are available:

Petrol Re.0.60 per km.

Repairs and maintenance Re.0.20 per km.

Tyre Re. 0.12 per km.

Insurance Rs. 1,200 per car per annum.

Taxes Rs.800 per car per annum.

Life of car : 5 years with annual mileage of 20,000 kms.

Resale Value : Rs.20,000 at the end of the fifth year.

Required : work out the relative costs of three proposals and rank them.

**Q6. (SM)** You have been given a permit to run a bus on a route of 20 km. long. The bus costs you Rs. 9,00,000. It has to be insured @ 3% p.a. and the annual tax will be Rs. 10,000. Garage rent is Rs. 10,000 p.m. Annual repairs will be Rs. 10,000 and the bus is likely to last for 5 years and at the end of which the scrap value is likely to be Rs. 60,000.

The driver's salary will be Rs. 1,500 p.m. and the conductor's Rs. 1,000 together with 10% of the takings as commission (to be shared equally by both). Stationery will cost Rs. 500 p.m. The manager-cum-accountant's salary will be Rs. 3,500 p.m.

Diesel and oil be Rs. 450 per hundred kilometers. The bus will make 3 round trips for carrying on the average 40 passengers on each trip. Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger. The bus will work on the average 25 days in a month.

**Q7. (PM).** The following information relates to a bus operator :

Cost of the bus	Rs. 18,00,000
Insurance charges	3% p.a.
Manager-cum accountant's salary	8,000 p.m.
Annual Tax	50,000
General Rent	2,500 p.m.
Annual repair & maintenance	1,50,000
Expected life of the bus	15 years
Scrap value at the end of 15 years	1,20,000
Driver's salary	15,000 p.m.
Conductor's salary	12,000 p.m.
Stationery	500 p.m.
Engine oil, lubricants (for 1200-k.m.)	2,500
Diesel and oil (for 10 km.)	52
Commission to driver and conductor (share equally)	10% of collections
Route distance	20 km long

The bus will make 3 round trips for carrying on the average 40 passengers in each trip. Assume 15% profit on collections. The bus will work on the average 25 days in a month.

Calculate fare for passenger-km.

- Q8. (PM).** Voyager Cabs Pvt. Ltd. is a New Delhi based cab renting company, provides cab facility on rent for cities Delhi, Agra and Jaipur to the tourists. To attract more tourists it has launched a new three days tour package for Delhi-Jaipur-Agra-Delhi. Following are the relevant information regarding the package:

Distance between Delhi to Jaipur (KM)	274
Distance between Delhi to Agra (KM)	242
Distance between Agra to Jaipur (KM)	238
Price of diesel in Delhi	Rs. 54 per litre
Price of diesel in Jaipur	Rs. 56 per litre
Price of diesel in Agra	Rs. 58 per litre
Mileage of cab per litre of diesel (KM)	16
Chauffeur's salary	Rs. 12,000 per month
Cost of the cab	Rs. 12,00,000
Expected life of the cab	24,00,000 kms.
Servicing cost	Rs. 30,000 after every 50,000 KM run
Chauffeur's meal allowance	Rs. 50 for every 200 KM of completed journey
Other set up and office cost	Rs. 2,400 per month

Voyager Cabs has made tie-up with fuel service centres at Agra, Jaipur and Delhi to fill diesel to its cabs on production of fuel passbook to the fuel centre. Company has a policy to get fuel filled up sufficient to reach next destination only.

You are required to calculate the price inclusive of service tax @ 12.36% to be quoted for the package if company wants to earn profit of 25% on its net takings i.e. excluding service tax.

- Q9. (SMP1-Similar /B5).** Mr. X owns a bus which runs according to the following schedule:

- (i) Delhi to Chandigarh and back, the same day.

Distance covered : 150 kms one way.

Number of days run each month : 8

Seating capacity occupied : 90%

- (ii) Delhi to Agra and back, the same day.

Distance covered : 120 kms one way.

Number of days run each month : 10

Seating capacity occupied : 85%

- (iii) Delhi to Jaipur and back, the same day.

Distance covered : 270 kms one way

Number of days run each month : 6

Seating capacity occupied : 100%

- (iv) Following are the other details:

Cost of the bus

Rs. 6,00,000

Salary of the driver

Rs. 2,800 p.m.

Salary of the conductor

Rs. 2,200 p.m.

Salary of the part time Accountant

Rs. 200 p.m.

Insurance of the bus

Rs. 4,800 p.a.

Diesel consumption 4 kms per liter at

Rs. 6 per litre

Road tax

Rs. 1,500 p.a.

Lubricant oil

Rs. 10 per 100 kms

Permit fee

Rs. 315 p.m.

Repairs and maintenance

Rs. 1,000 p.m.

Depreciation of the bus

@ 20% p.a.

Seating capacity of the bus

50 persons.

Passenger tax is 20% of the total takings.

Required : Calculate the bus fare to be charged from each passenger to earn a profit of 30% on total takings. The fares are to be indicated per passenger for the journeys:

- (i) Delhi to Chandigarh

- (ii) Delhi to Agra

- (iii) Delhi to Jaipur

- Q10. (PM7)** A transport company has been given a 40 kilometre long route to run 5 buses. The cost of each bus is Rs. 6,50,000. The buses will makes 3 round trips per day carrying on an average 80 percent passengers of their seating capacity. The seating of each bus is 40 passengers. The buses will run on an average 25 days in a month. The other information for the year 2013-14 are given below:

Garage rent	Rs. 4,000 per month
Annual repairs and maintenance	Rs. 22,500 each bus
Salaries of 5 drivers	Rs. 3,000 each per month
Wages of 5 conductors	Rs. 1,200 each per month
Manager's salary	Rs. 7,500 per month
Road tax, permit fee, etc.	Rs. 5,000 for a quarter
Office Expenses	Rs. 2,000 per month
Cost of diesel per litre	Rs. 33
Kilometre run per litre for each Bus	6 Kilometres
Annual depreciation	15% of cost
Annual Insurance	3% of cost

You are required to calculate the bus fare to be charged from each passenger per kilometer, if the company wants to earn profits of 33.33% on taking (Total receipts from passengers.)

# TRUCK

**Q11. (A2).** A truck starts with a load of 10 tonnes of goods from station P. It unloads 4 tonnes at station Q and rest of the goods at station R. It reaches at back directly to station P after getting reloaded with 8 tonnes of goods at station R. The distances between P to Q, Q to R and then from R to P are 40 kms, 60 kms and 80 kms respectively.

**Required:** compute 'Absolute Tonne-km' and commercial Tonne-km'.

**Q12. (SMN1).** A lorry starts with a load of 20 tonnes of goods from station A. It unloads 8 tonnes at station B and rest of goods at station C. It reaches back directly to station A after getting reloaded with 16 tonnes of goods at station C. The distance between A to B, B to C and then from C to A are 80 km, 120 km and 160 km, respectively. Compute 'Absolute tonne-km', and 'Commercial tonnes-km'.

**Q13. (PM2)** A lorry starts with a load of 24 tonnes of goods from station A. it unloads 10 tonnes at station B and rest of goods at station C. It reaches back directly to station A after getting reloaded with 18 tonnes of goods at station C. The distance between A to B, B to C and then from C to A are 270 kms., 150 kms and 325 kms respectively. Compute 'Absolute tones km.' and 'Commercial tones-km'.

**Q14. (SMN5/A9).** Global Transport Ltd. Charges Rs. 90 per tone for its 6 tonnes truck lorry from city 'A' to city 'B'. The charges for the return journey are Rs. 84 per tonne. No concession or reduction in these rates is made for any delivery of goods at intermediate station 'C'. In January, 20X6 the truck made 12 outward journeys for city 'B' with full load out of which 2 tonnes were unloaded twice in the ways at city 'C'. The truck carried a load of 8 tonnes in its return journey for 5 times but once caught by police and Rs. 1200 paid as fine. For the remaining trips the truck carried full load out of which all the goods on load were unloaded once at city 'C'. The distance from city 'A' to city 'C' and city 'B' are 140 kms and 300 kms respectively. Annual fixed costs and maintenance charges are Rs.60,000 and Rs. 12,000 respectively. Running charges spent during January 20X6 are Rs. 2,944.

**Required:** Calculate the cost per absolute tonne-kilometer and the profit for January, 20X6.

**Q15. (C3/PM).** A transport company has a fleet of three trucks of 10 tonnes capacity each plying in different directions for transport of customer's goods. The trucks run loaded with goods and return empty. The distance travelled, number of trips made and the load carried per day by each truck are as under:

Truck no.	one way distance km.	No. of trips per day	Load carried per trip/ day tones
1	16	4	6
2	40	2	9
3	30	3	8

The analysis of maintenance cost and the total distance travelled during the last two years is as under:

Year	Total distance travelled	Maintenance cost
1	1,60,200	46,050
2	1,56,700	45,175

The following are the details of expenses for the year under review:

Diesel	Rs.10 per litre. Each litre gives 4 km per litre of diesel on an average.
Driver's salary	Rs. 2,000 per month
Licence and taxes	Rs. 5,000 p.a. per truck
Insurance	Rs. 5,000 per annum for all the three vehicles.
Purchase price per truck	Rs. 3,00,000 life 10 years. Scrap value at the end of life is Rs. 10,000
Oil and sundries	Rs.25 per 100 km run.
General overhead	Rs. 11,084 per annum.

The vehicle operated 24 days per month on an average.

Required:

- Prepare an annul cost statement covering the fleet of three vehicles.
- Calculate the cost per km. run.
- Determine the freight rate per tone km. to yield a profit of 10% on freight.

[MTP-MAR19/6(A)-Similar][R-N19/10-Similar]

**Q16. (PM)** A transport company has 20 vehicles, which capacities are as follows:

No. of Vehicles	Capacity per Vehicle
5	9 tonnes
6	12 tonnes
7	15 tonne
2	20 tonne

The company provides the goods transport service between stations 'A' to station 'B' Distance between these stations is 200 kilometers. Each vehicle makes one round trip per day an average. Vehicles are loaded with an average of 90 per cent of capacity at the time of departure from station 'A' to station 'B' and at the time of return back loaded with 70 per cent of capacity. 10 per cent of vehicles are laid up for repairs every day.

The following information are related to the month of October, 2013:

Salary of Transport Manager	Rs. 30,000
Salary of 30 Drivers	Rs. 4,000 each driver
Wages of 25 Helpers	Rs. 2,000 each helper
Wages of 20 Labourers	Rs. 1,500 each labourer
Consumable stores	Rs. 45,000
Insurance (Annual)	Rs. 24,000
Road Licence (Annual)	Rs. 60,000
Cost of Diesel per litre	Rs. 35
Kilometres run per litre each vehicle	5 K.M.
Lubricant, Oil etc.	Rs. 23,500
Cost of replacement of Types, Tubes, other parts etc.	Rs. 1,25,000
Garage rent (Annual)	Rs. 90,000
Transport Technical Service Charges	Rs. 10,000
Electricity and Gas Charges	Rs. 5,000
Depreciation of vehicles	Rs. 2,00,000

There is a workshop attached to transport department which repairs these vehicles and other vehicles also. 40 per cent of transport manager's salary is debited to the workshop. The transport department is charged Rs. 28,000 for the service rendered by the workshop during October, 2013. During the month of October, 2013 operation was 25 days.

**You are required:**

- Calculate per ton-km operating cost.
- Find out the freight to be charged per ton-km, if the company earned a profit of 25 per cent on freight.



**Q17. (PM)** Gopal Milk Co-Operative Society (GMCS) collects raw milk from the farmers of Ramgarh, Pratapgarh and Devgarh panchayats and processes these milk to make various dairy products. GMCS has its own vehicles (tankers) to collect and bring the milk to the processing plant. Vehicles are parked in the GMCSs garage situated within the plant compound. Following are the some information related with the vehicles:

	Ramgarh	Pratapgarh	Devgarh
No. of vehicles assigned	4	3	5
No. of trips a day	3	2	2
One way distance from the processing plant	24 k.m.	34 k.m.	16 k.m.
Toll tax paid p.m. (Rs.)	2,850	3,020	---

All the 5 vehicles assigned to Devgarh panchayat, were purchased five years back at a cost of Rs.9,25,000 each. The 4 vehicles assigned to Ramgarh panchayat, were purchased two years back at a cost of Rs.11,02,000 each and the remaining vehicles assigned to Pratapgarh were purchased last year at a cost of Rs.13,12,000 each. With the purchase of each vehicle a two years free servicing warranty is provided. A vehicle gives 10 kmpl milcage in the first two year of purchase, 8 kmpl in next two years and 6 kmpl afterwards. The vehicles are subject to depreciation of 10% p.a. on straight line basis irrespective of usage. A vehicle has the capacity to carry 25,000 litres of milk but on an average only 70% of the total capacity is utilized.

The following expenditure is related with the vehicles:

Salary to a Driver (a driver for each vehicle)	Rs.18,000 p.m.
Salary to a Cleaner (a cleaner for each vehicle)	Rs.11,000 p.m.
Allocated garage parking fee	Rs.1,350 per vehicle per month
Servicing cost	Rs.3,000 for every complete 5,000 k.m. run.
Price of diesel per litre	Rs.58.00

From the above information you are required to calculate

- Total operating cost per month for each vehicle. (Take 30 days for the month)
- Vehicle operating cost per litre of milk.

[R-N-14/4]

## POWER HOUSE COSTING

**Q18. (SMN12/SMO).** From the following data pertaining to the year 2014-15 prepare a cost statement showing the cost of electricity generated per kwh by Chambal Thermal Power Station.

Total units generated	10,00,000 kwh
Operating labour	15,00,000
Repairs & maintenance	5,00,000
Lubricants, spares and stores	4,00,000
Plant supervision	3,00,000
Administration overheads	20,00,000

5 kwh. of electricity generated per kg. of coal consumed @ Rs. 4.25 per kg. Depreciation charges @ 5% on capital cost of Rs. 2,00,00,000.

**Q19. (SMP3-Similar)** From the following data pertaining to the year 2012-13 prepare a cost sheet showing the cost of electricity generated per k.w.h. by Chambal Thermal Power Station.

Total units generated	10,00,000 k.w.h.
Operating Labour	50,000
Repairs & Maintenance	50,000
Lubricants, spares and stores	40,000
Plant supervision	30,000
Administration overheads	20,000

Coal consumed per k.w.h for the year is 2.5 k.g. @ Rs. 0.02 per kg. Depreciation charges @ 5% on capital cost of Rs. 2,00,000.

# SCHOOL COSTING

**Q20. (SMN4/B6/SM-Similar).** SMC is a public school having five buses each plying in different directions for the transport of its school students. In view of a large number of students availing of the bus service, the buses work two shifts daily both in the morning and in the afternoon. The buses are garaged in the school. The work load of the students has been so arranged that in the morning the first trip picks up the senior students and the second trip plying an hour later picks up the junior students. Similarly, in the afternoon the first trip drops the junior students and an hour later the second trip takes the senior students home.

The distance travelled by each bus one way is 8 km. The school works 25 days in a month and remains closed for vacation in May, June and December, Bus fee, however, is payable by the students for all the 12 months of the year.

The details of expenses for a year are as under:

Driver's Salary	Rs. 450 per month per driver
Cleaner's Salary (one cleaner employed for all the five buses)	Rs. 350 per month.
License fee, taxes etc.	Rs. 860 per bus per annum
Insurance	Rs. 1000 per bus per annum
Repairs and maintenance	Rs. 3,500 per bus per annum
Purchase price of bus (life 12 years)	Rs. 1,50,000
Scrap Value	Rs. 30,000
Diesel cost	Rs. 2.00 per litre

Each bus gives an average mileage of 4 kms per litre of diesel.

Seating capacity of each bus is 50 students.

The seating capacity is fully occupied during the whole year.

Students picked up and dropped within a range upto 4 kms of distance from the school are charged half fare and fifty per cent of the students travelling in each trip are in this category. Ignore interest. Since the charges are to be based on average cost.

## Required:

- (i) Prepare a statement showing the expenses of operating a single bus and the fleet of five buses for a year.
- (ii) Work out the average cost per student per month in respect of ---
  - (a) Students coming from a distance of upto 4 kms from the school and
  - (b) Students coming from a distance beyond 4 kms from the school.

**Q21. (B11/PM).** EPS is a public school having 25 buses each plying in different directions for the transport of its school students. In view of large number of students availing of the bus service, the buses work two shifts daily both in the morning and the afternoon. The buses are garaged in the school. The workload of the students has been so arranged that in the morning, the first trip picks up senior students and the second trip plying an hour later picks up junior students. Similarly, in the afternoon, the first trip takes the junior students and an hour later the second trip takes the senior students home.

The distance travelled by each bus, one way is 16 km. The school works 24 days in a month and remains closed for vacation in May and June. The bus fee, however, is payable by the students for all the 12 months in a year.

The details of expenses for the year 20X5-20X6 are as under :

Driver's salary-payable for the 12 months	Rs. 5,000 per month per driver
Cleaner's salary payable for all the 12 months (one cleaner has been employed for every five buses)	Rs. 3,000 per month per cleaner
Licence fees, taxes etc.	Rs. 2,300 per bus per annum
Insurance premium	Rs. 15,600 per bus per annum
Repairs and maintenance	Rs. 16,400 per bus per annum
Purchase price of the bus	Rs. 16,50,000 each
Life of the bus	16 years
Scrap value	Rs. 1,50,000
Diesel cost	Rs. 18.50 per litre

Each bus given an average of 10 km per litre diesel. The seating capacity of each bus is 60 students. The seating capacity is fully occupied during the whole year.

The school follows differential bus fee based on distance traveled as under:

Students picked up and dropped within the range of distance from the school	Bus fee	Percentage of students availing this facility
4 km	25% of full	15%
8 km	50% of full	30%
16 km	full	55%

Ignore interest. Since the bus fee has to be based on average cost, you are required to :

- (i) Prepare a statement showing the expenses of operating a single bus and fleet of 25 buses for a year.
- (ii) Work out average cost per student per month in respect of :
  - (a) Students coming from a distance of upto 4 km from the school;
  - (b) Students coming from a distance of upto 8 km from the school; and
  - (c) Students coming from a distance of upto 16 km from the school.

# LIBRARY COSTING

**Q22. (C6/PM).** A club runs a library for its members. As part of club policy, an annual subsidy of upto Rs.5 per member including cost of books may be given from the general funds of the club. The management of the club has provided the following figures for its library department:

Number of club members	5,000
Number of Library Members	1,000
Library fee per member per month	Rs. 100
Fine for late return of books	Re.1 per book per day
Average No. of Books returned late per month	500
Average No. of days each book is returned late	5 days
Number of available old books	50,000 books
Cost of new books	Rs.300 per book
Number of books purchased per year	1,200 books
Cost of maintenance per old book per year	Rs.10

Staff details	No.	Per Employee salary per month (Rs.)
Librarian	01	10,000
Assistant Librarian	03	7,000
Clerk	01	4,000

You are required to calculate:

- The cost of maintaining the library per year excluding the cost of new books;
- The cost incurred per member per month on the library excluding cost of new books; and
- The net income from the library per year.
- If the club follows a policy that all new books must be purchased out of library revenue (a) what is the maximum number of books that can be purchased per year and (b) how many excess books are being purchased by the library per year? Also comment on the subsidy policy of the club.

## MINES COSTING

- Q23. (C2/PM).** A mineral is transported from two mines – 'A' and 'B' and unloaded at plots in a Railway station. Mine A is at a distance of 10 kms. And B is at a distance of 15 kms. From rail head plots. A fleet of lorries of 5 tonne carrying capacity is used for the transport of mineral from the mines. Records reveal that the lorries average a speed of 30 kms. Per hour, when running and regularly take 10 minutes to unload at the railhead. At mine 'A' loading time averages 30 minutes per load while at mine 'B' loading time average 20 minutes per load.
- Drivers wages , depreciation, insurance and taxes are found cost Rs. 9 per hour operated. Fuel , oil, tyres , repairs and maintenance cost Rs. 1.20 per km.
- Required:** Draw up a statement, showing the cost per tone-kilometre of carrying mineral from each mine.

## AIR LINES COSTING

- Q24. (C4/PM).** In order to develop tourism, ABCL airline has been given permit to operate three flights in a week between X and Y cities (both sides). The airline operates a single aircraft of 160 seats capacity. The normal occupancy is estimated at 60% through out the year of 52 weeks. The one-way fare is Rs.7,200.

The cost of operation of flights are:

Fuel cost (variable)	Rs.96,000 per flight
Food served on board on non-chargeable basis	Rs.125 per passenger
Commission	5% of fare application for all booking
Fixed cost:	
Aircraft lease	Rs.3,50,000 per flight
Landing charges	Rs.72,000 per flight

**Required :**

- (i) Calculate the net operating income per flight.
- (ii) The airline expects that its occupancy will increase to 108 passengers per flight if the fare is reduced to Rs.6,720. Advice whether this proposal should be implemented or not.

[IPC/R-N18/9]

PABAS

## HOTEL COSTING

**Q25. [SMN7]** A lodging home is being run in a small hill station with 100 single rooms. The home offers concession rates during six off-season months in a year. During this period, half of the full room rent is charged. The management's profit margin is targeted at 20% of the room rent. The following are the cost estimates and other details for the year ending on 31st March 20X7. [Assume a month to be of 30 days].

- (i) Occupancy during the season is 80% while in the off-season it is 40% only
- (ii) Total investment in the home is Rs.200 lakhs of which 80% relate to buildings and balance for furniture and equipment
- (iii) Expenses:
 

Staff salary [Excluding room attendants]	: Rs.5,50,000
Repairs to building	: Rs.2,61,000
Laundry charges	: Rs.80,000
Interior	: Rs.1,75,000
Miscellaneous expenses	: Rs.1,90,800
- (iv) Annual depreciation is to be provided for buildings @ 5% and on furniture and equipment @ 15% on straight-line basis.
- (v) Room attendants are paid Rs.10 per room day on the basis of occupancy of the rooms in a month.
- (vi) Monthly lighting charges are Rs.120 per room, except in four months in winter when it is Rs.30 per room and this cost is on the basis of full occupancy for a month. You are required to work out the room rent chargeable per day both during the season and the off-season months on the basis of the foregoing information. **[INTER/N19/3(a) & IPC/M19/4(A) -Similar]**

**Q26. (SMN6/C5/PM).** A company runs a holiday home. For this purpose, it has hired a building at a rent of Rs.10,000 per month alongwith 5% of total takings. It has three types of suites for its customers, viz., single room, double rooms and triple rooms.

Following information is given:

Types of suite	Number	Occupancy percentage
Single Room	100	100%
Double Rooms	50	80%
Triple Rooms	30	60%

The rent of double rooms suite is to be fixed at 2.5 times of the single room suite and that of triple rooms suite as twice of the double rooms suite.

The other expenses for the year 2006 are as follows:

	Rs.
Staff salaries	14,25,000
Room attendants wages	4,50,000
Lighting, heating and power	2,15,000
Repairs and renovation	1,23,500
Laundry charges	80,500
Interior decoration	74,000
Sundries	1,53,000

Provide profit @20% on total taking and assume 360 days in a year.

You are required to calculate the rent to be charged for each type of suite.

**[R-M-16/5-Similar][R-M-19/10]**



## HOSPITAL COSTING

**Q27. [SMN8]** ABC Hospital runs a Critical Care Unit (CCU) in a hired building. CCU consists of 35 beds and 5 more beds can be added, if required.

Rent per month — Rs.75,000

Supervisors — 2 persons — Rs.25,000 Per month — each

Nurses — 4 persons — Rs.20,000 per month — each

Ward Boys — 4 persons — Rs.5,000 per month — each

Doctors paid Rs.2,50,000 per month—paid on the basis of number of patients attended and the time spent by them.

**Other expenses for the year are as follows:**

Repairs (Fixed) — Rs.81,000

Food to Patients (Variable) — Rs.8,80,000

Other services to patients (Variable) — Rs.3,00,000

Laundry charges (Variable) — Rs.6,00,000

Medicines (Variable) — Rs.750,000

Other fixed expenses — Rs.10,80,000

Administration expenses allocated — Rs.10,00,000.

It was estimated that for 150 days in a year 35 beds are occupied and for 80 days only 25 beds are occupied.

The hospital hired 750 beds at a charge of Rs.100 per bed per day, to accommodate the flow of patients. However, this does not exceed more than 5 extra beds over and above the normal capacity of 35 beds on any day

You are required to —

- (a) Calculate profit per Patient day if the hospital recovers on an average Rs.2,000 per day from each patient
- (b) Find out Breakeven point for the hospital.

**Q28.** A group of 'Health Care Services' has decided to establish a Critical Care Unit in a metro city with an investment of Rs. 85 lakhs in hospital equipments. The unit's capacity shall be of 50 beds and 10 more beds, if required, can be added. Other information for a year are as under :

	(Rs.)
Building Rent	2,25,000 per month
Manager's Salary (Number of Managers -03)	50,000 per month to each one
Nurses' Salary (Number of Nurses -24)	18,000 per month to each Nurse
Word boys' Salary (Number of word boys-24)	9000 per month per person
Doctor's Payment (Paid on the basis of number of patients attended and time spent by them)	5,50,000 per month
Food and laundry services (variable )	39,53,000 per year
Medicines to patients (variable)	22,75,000 per year
Administrative Overheads	28,00,000 per year
Depreciation on equipments	15% per annum on original cost

It was reported that for 200 days in a year 50 beds were occupied, for 105 days 30 beds were occupied and for 60 days 20 beds were occupied.

The hospital hired 250 beds at a charge of Rs. 950 per bed to accommodate the flow of patients. However, this exceeded the normal capacity of 50 beds on any day.

Find Out:

- (i) Profit per patient day, if hospital charges on an average Rs. 2,500 per day from each patient.
- (ii) Break even point per patient day  
(Make calculation on annual basis)

**[INTER-M18/4(B)][M-10]**

## POWER HOUSE COSTING

### MISCELLANEOUS

**Q29. [SMN9]** Following are the data pertaining to infotech Pvt. Ltd, for the year 20X6-X7

	Amount (Rs.)
Salary to Software Engineers (5 persons)	15,00,000
Salary to project Leaders (2 persons)	9,00,000
Salary to Project Manager	6,00,000
Repairs & maintenance	3,00,000
Administration overheads	12,00,000

The company executes a Project XYZ, the details of the same as are as follows: .

Project duration — 6 months

One Project Leader and three Software Engineers were involved for the entire duration of the project, whereas Project Manager spends 2 months' efforts, during the execution of the project.

Travel expenses incurred for the project — Rs.1,87,500.

Two Laptops were purchased at a cost of Rs.50,000 each, for use in the project and the life of the same is estimated to be 2 years

Prepare Project cost sheet

**Q30. [SMN10]** BHG Toll Plaza Ltd built a 60 km. long highway and now operates a toll plaza to collect tolls from passing vehicles using the same. The company has invested Rs.600 crore to build the road and has estimated that a total of 60 crore vehicles will be using the highway during the 10 years toll collection tenure. Toll Operating and Maintenance cost for the month of April 20X7 are as follows:

- (i) Salary to —
  - o collection Personnel (3 shifts and 4 persons per shift) – Rs.150 per day per person
  - o Supervisor (2 Shifts and 1 person per shift) – Rs.250 per day per person
  - o Security Personnel (3 Shifts and 2 persons per shift) - 150 per day per person
  - o Toll Booth Manager (2 Shifts and 1 person per shift) -400 per day per person
- (ii) Electricity — Rs.80,000
- (iii) Telephone — Rs.40,000
- (iv) Maintenance cost — Rs.30 Lacs
- (v) The company needs 25% profit over total cost to cover interest and other costs.

**Required:**

- (i) Calculate cost per kilometer
- (ii) Calculate the toll rate per vehicle (assume there is only one type of vehicle).

**Q31. [SMN11]** The loan department of a bank performs several functions in addition to home loan application processing task. It is estimated that 25% of the overhead costs of loan department are applicable to the processing of home-loan application. The following information is given concerning the processing of loan application:

Direct professional labour:

	(Rs.)
Loan processor monthly salary: (4 employees @ Rs.20,000 each)	80,000
Loan department overhead costs (monthly)	
Chief loan officer's salary	5,000
Telephone expenses	750
Depreciation Building	2,800
Legal advice	2,400
Advertising	400
Miscellaneous	<u>650</u>
Total overhead costs	<u>12,000</u>

You are required to compute the cost of processing home loan application on the assumption that one hundred home loan applications are processed each month.

## CANTEEN COSTING

**Q32.** A company want to outsource the operation of its canteen to a contractor. The company will provide space for cooking, free electricity and furniture in the canteen. The contractor will have to provide lunch to 300 worker of which 180 are vegetarian (Veg) and the rest are non-vegetarian (Non-Veg). In the case of non-veg meals, there will be a non-veg item in addition to the veg items. A contractor who is interested in the contract has analysed the costs likely to be incurred. His analysis is given below:

- Cereals : Rs. 8 per plate
- Veg items : Rs. 5 per plate
- Non-veg items : Rs. 15 per plate
- Spices : Rs. 1 per plate
- Cooking oil : Rs. 4 per plate
- One cook : Salary Rs. 13,000 per month
- Three helpers : Salary Rs. 7,000 per month per head
- Fuel : Two commercial cylinders per month, price Rs. 1,000 each.

On an average the canteen will remain open for 25 days in a month. The contractor wants to charge the non-veg meals at 1.50 times of the veg meals.

You are required to calculate:

- (i) The price per meal (veg and non-veg separately) that contractor should quote if he wants of 20% on his takings.
- (ii) The price per meal (separately for veg and non-veg) that a worker will be required to pay if the company provides 60% subsidy for meals out of welfare fund.

[IPC-M18/3(A)]

## ADDITIONAL QUESTIONS FOR PRACTICE

**Q33. (A20).** From the following information, calculate what rent should be charged for each type of suits:

	Summer season for 7 months			Winter season for 5 Months		
	1 Room	2 Rooms	3 Rooms	1 Room	2 Rooms	3 Rooms
No. of Rooms	100	50	25	100	50	25
Occupancy Rate	90%	80%	60%	45%	40%	40%
Wages of Room						
Attendant per day	Rs. 2	Rs.3	Rs. 4	Rs.3	Rs. 4.50	Rs.6
Lighting p.m.	Rs.45	Rs.60	Rs.90	Rs. 45	Rs.60	Rs.90
Power p.m.	Rs.18	Rs. 30	Rs.36	Rs.9	Rs. 9	Rs. 9
Detail of Annual Expenses:						
a. Staff Salaries						Rs. 1,76,000
b. Repair and Maintenance						Rs.30,000
c. Linen etc.						Rs. 45,000
d. Interior Decoration Costs						Rs.60,000
e. Sundry Expenses						Rs. 47,730
f. Details of Investments and rates of Depreciation :						
(a) Building						Rs. 20 lacs, Rate of Depreciation 5%
(b) Furniture and fixtures						Rs. 7.5 lacs, Rate of Depreciation 10%
g. Interest @ 18% p.a. on the Total fixed investment to be charged as part of cost.						
h. Desired Profit is 20% on Rent Receipts.						
i. Rent of single room to be fixed as $\frac{2}{3}$ rd of double room suite of which rent is $\frac{3}{4}$ the rent of three room suite.						

**Q34.** Happy Transport Service is a Delhi based national goods transport service provider, owning four trucks for this purpose. The cost of running and maintaining these trucks are as follows:

Particulars	Amount (Rs.)
Diesel cost	Rs.13.75 per km.
Engine oil	Rs.4,200 for every 13,000 km.
Repair and maintenance	Rs.12,000 for every 10,000 km.
Driver's salary	Rs.18,000 per truck per month
Cleaner's salary	Rs.7,500 per truck per month
Supervision and other general expenses	Rs.12,000 per month
Cost of loading of goods	Rs.150 per Metric Ton (MT)

Each trucks were purchased for Rs.20 lakhs with an estimated life of 7,20,000 km.

During the next month, it is expecting 6 bookings, the details are as follows:

Sl. No.	Journey	Distance in km	Weight- Up (in MT)	Weight- Down (in MT)
1.	Delhi to Kochi	2,700	14	6
2.	Delhi to Guwahati	1,890	12	0
3.	Delhi to Vijayawada	1,840	15	0
4.	Delhi to Varanasi	815	10	0
5.	Delhi to Asansol	1,280	12	4
6.	Delhi to Chennai	2,185	10	8
	<b>Total</b>	<b>10,710</b>	<b>73</b>	<b>18</b>

**Required**

- Calculate the total absolute Ton-km for the vehicles.
- Calculate the cost per ton-km.

(R-M-17/6)

**Q35. (A5).** A truck owner provides you the following information :

Capacity of truck	10 tones
Distance covered each way	50 kms
No. of round trips per day	2
No. of days operated	25 days a month
Operating cost of a truck	Rs. 55,000 per month
On outward trip freight is available to the extent of 90% capacity and on return 20% Of capacity.	

**Required:** Calculate (a) Tonne =kms per Month; (b) operating cost per tone km; (c) Rate per tone – km per trip to be charged so as to earn a profit of 50% on freight; (d) Freight earned per outward trip; (e) freight earned per inward trip.

**Q36.** P Ltd. distributes its goods to dealers using a delivery van. The dealers' premises are 40 kilometre away from the company's office. The van has a capacity of 10 tonnes and makes the journey twice a day fully loaded on the outward journeys and empty on return journey. The following information is available for a four weekly period during the year 2016:

Diesel consumption	10 kilometer per litre
Diesel cost	Rs.48 per litre
Lubricant oil	Rs.600 per week
Drivers salary	Rs.12,000 per month
Repairs & Maintenance	Rs.1,800 per month
Garage rent	Rs.4,800 per months
Cost of van (excluding tyres)	Rs.16,00,000
Life of van	3,80,000 kilometres
Insurance	Rs.5,400 per annum
Cost of tyres	Rs.22,000
Life of tyres	80,000 kilometres
Estimated sale value of van at end of its life	Rs.2,40,000
Vehicle permit fee	Rs.3,600 per annum
Other overhead cost	Rs.66,000 per annum

The van operates five-day a week.

**Required:**

- A statement to show the total monthly cost of operating the vehicle.
- Calculate the operating cost per kilometre and per tonne kilometre.

**(R-N-16/6)[INTER/M19/4(A)-Similar, IPC/R-M19/6]**

**Q37.** KINGFISHER Airways owns a single jet aircraft and operates between Bombay and New Delhi. Flights leave Bombay on Mondays and Thursdays and depart from New Delhi on Wednesdays and Saturdays. KINGFISHER Airways cannot afford any more flights between Bombay and New Delhi. Only tourist class seats are available on its flights. An analyst has collected the following information:

Seating capacity per plane	360
Average Passengers per flight	100
Flights per week	4
Flights per year	208
Average one-way fare	Rs. 10,000
Variable fuel costs	Rs. 1,40,000 per flight
Food service to passengers (not charged to passengers)	Rs. 400 per passenger
Commission paid to travel agents paid by KINGFISHER Airways on each ticket booked on KINGFISHER Airways (Assume that all KINGFISHER tickets are booked by travel agents)	8% of fare
Fixed annual lease costs allocated to each flight	Rs. 5,30,000 per flight
Fixed ground service (maintenance, check-in baggage handling) costs allocated to each flight	Rs. 70,000 per flight
Fixed salaries of flights crew allocated to each flight	Rs. 40,000 per flight

For the sake of simplicity, assume that fuel costs are unaffected by the actual number of passengers on a flight.

**Required:**

- (a) What is the operating income that KINGFISHER Airways makes on each one-way flight between Bombay and New Delhi?
- (b) The market research department of KINGFISHER Airways indicates that lowering the average one-way fare to Rs. 9,600 will increase the average number of passengers per flight to 106. Should KINGFISHER Airways lower its fare?
- (c) Travel India, a tour operator, approaches KINGFISHER Airways to charter its jet aircraft twice each month, first to take Travel India International tourists from Bombay to New Delhi and then bring the tourists back from New Delhi to Bombay. If KINGFISHER Airways accepts the offer, it will be able to offer only 184 (208 minus 24) of its own flights each year. The terms of the charter are:
  - (i) For each one-way flight Travel India will pay KINGFISHER Rs. 7,50,000 to charter the plane and to use its flight crew and ground service staff.
  - (ii) Travel India will pay for fuel costs.
  - (iii) Travel India will pay for all food costs.

On purely financial considerations, should KINGFISHER Airways accept the offer from Travel India tours and Travel?

[R-N-09/8][MTP-OCT-18/3(A)-Similar]

- Q38. (A19).** From the following information relating to a hotel, calculate the room rent to be charged to give a profit of 25% on cost excluding interest
- Salaries of Staff : Rs. 1,02,200 p.a.
  - Wages of the room attendant : Rs. 4 per day.  
There is a room attendant for each room. He is paid wages only when the room is occupied.
  - Lighting, Heating and Power
    - The normal lighting expenses for each room for the whole month is Rs. 100 when occupied.
    - Power is used only in winter and the charges are Rs. 40 P.M. for a room, when occupied.
  - Repairs to buildings : Rs. 10,000 p.a.
  - Licence etc : Rs. 4,800 p.a.
  - Sundries : Rs. 6,600 p.a.
  - Interior decoration and furnishing : Rs. 10,000 p.a.
  - Depreciation @ 5% is to be charged on buildings costing Rs. 4,00,000 and 10% on equipments.
  - Interest to be charged @ 20% on investment in buildings and equipments amounting to Rs. 5,00,000.
  - There are 100 rooms in the hotel 80% of the rooms are generally occupied in summer and 30% in winter. The period of summer and winter may be considered to be of 6 month in each case:  
A month may be assumed of 30 days.

- Q39.** 'RP' Resorts (P) Ltd. offers three types of rooms to its guests, viz deluxe room, super deluxe room and luxury suite. You are required to COMPUTE the tariff to be charged to the customers for different types of rooms on the basis of following information:

Types of Room	Number of Rooms	Occupancy
Deluxe Room	100	90%
Super Deluxe Room	60	75%
Luxury Suite	40	60%

Rent of 'super deluxe' room is to be fixed at 2 times of 'deluxe room' and that of 'luxury suite' is 3 times of 'deluxe room'. Annual expenses are as follows:

Particulars	Amount (Rs. lakhs)
Staff salaries	680.00
Lighting, Heating and Power	300.00
Repairs, Maintenance and Renovation	180.00
Linen	30.00
Laundry charges	24.00
Interior decoration	75.00
Sundries	30.28

An attendant for each room was provided when the room was occupied and he was paid Rs. 500 per day towards wages. Further, depreciation is to be provided on building @ 5% on Rs. 900 lakhs, furniture and fixtures @ 10% on Rs. 90 lakhs and air conditioners @ 10% on Rs. 75 lakhs.

Profit is to be provided @ 25% on total taking and assume 360 days in a year. [MTP-MAR18/5(B)]



- Q40.** AD Higher Secondary School (AHSS) offers courses for 11<sup>th</sup> & 12<sup>th</sup> standard in three streams i.e. Arts, Commerce and Science. AHSS runs higher secondary classes along with 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:**

	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	-

- 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.
- 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.
- One peon is fully dedicated for higher secondary section. Other peons dedicate their 15% time for higher secondary section.
- All school students irrespective of section and age participates in annual functions and sports activities.

**Required:**

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

**[R-M18/11]**

**Q41.** Sanziet Lifecare Ltd. operates in life insurance business. Last year it has launched a new term insurance policy for practicing professionals 'Professionals Protection Plus'. The Company has incurred the following expenditures during the last year for the policy:

Policy development cost	Rs. 11,25,000
Cost of marketing of the policy	Rs. 45,20,000
Sales support expenses	Rs. 11,45,000
Policy issuance cost	Rs. 10,05,900
Policy servicing cost	Rs. 35,20,700
Claims management cost	Rs. 1,25,600
IT cost	Rs. 74,32,000
Postage and logistics	Rs. 10,25,000
Facilities cost	Rs. 15,24,000
Employees cost	Rs. 5,60,000
Office administration cost	Rs. 16,20,400

Number of policy sold-528

Total insured value of policies –Rs. 1,320 crore

**Required:**

- (i) CALCULATE total cost for Professionals Protection Plus' policy segregating the costs into four main activities namely (a) Marketing and Sales support, (b) Operations, (c) IT and (d) Support functions.
- (ii) CALCULATE cost per policy.
- (iii) CALCULATE cost per rupee of insured value.

[R-N18/11]

**Q42.** Calculate a suggested fare per passengers –km From the following information for a Mini Bus:

- (i) Length of route: 30 km
- (ii) Purchase price Rs. 4,00,000
- (iii) Part of above cost met by loan, annual interest of which is Rs. 10,000 p.a.
- (iv) Other annual charges : Insurance Rs. 15,000, Garage rent Rs.9,000, Road tax Rs.3,000, Repairs & maintenance Rs. 15,000, Administrative charges Rs.5,000.
- (v) Running Expenses: Driver & Conductor Rs. 5,000 p.m., Repairs/Replacement of tyre-tube Rs.3,600 p.a., Diesel and oil cost per km Rs. 5.
- (vi) Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of Rs. 10,000.
- (vii) Mini Bus has 20 seats and is planned to make Six no. two way trips for 25 days/p.m.
- (viii) Provide profit @ 20% of total revenue.

[MTP-AUG18/1(B)]

- Q43.** SLS Infrastructure built and operates a 110 km. long highway on the basis of Built-Operate-Transfer (BOT) model for a period of 25 years. A traffic assessment has been carried out to estimate the traffic flow per day. The details are as below:

Sl. No.	Type of vehicle	Daily traffic Volume
1.	Two wheelers	44,500
2.	Car and SUVs	3,450
3.	Bus and LCV	1,800
4.	Heavy commercial vehicles	816

The following is the estimated cost of the project:

Sl. No.	Activities	Amount (Rs. In lakh)
1.	Site clearance	170.70
2.	Land development and filling work	9,080.35
3.	Sub base and base courses	10,260.70
4.	Bituminous work	35,070.80
5.	Bridge, flyovers, underpasses, Pedestrian subway, footbridge, etc.	29,055.60
6.	Drainage and protection work	9,040.50
7.	Traffic sign, marking and road appurtenance	8,405.00
8.	Maintenance, repairing and rehabilitation	12,429.60
9.	Environmental management	982.00
	Total Project cost	1,14,495.25

An average cost of Rs. 1,120 lakh has to be incurred on administration and toll plaza operation. On the basis of the vehicle specifications (i.e. weight, size, time saving etc.), the following weights has been assigned to the passing vehicles:

Sl. No.	Type of vehicle	%
1.	Two wheelers	5
2.	Car and SUVs	20
3.	Bus and LCV	30
4.	Heavy commercial vehicles	45

**Required:**

- CACULATE the total project cost per day of concession period.
- COMPUTE toll fee to be charged for per vehicle of each type, if the company wants to earn a profit of 15% on total cost.

[MTP-OCT19/5(A)]

[Note: Concession period is a period for which an infrastructure is allowed to operate and recovers its investment]

**Q44.** Asian Mfg. Co. has decided to increase the size of the store. It wants the information about the probability of the individual product lines : Lemon , Grapes and Papaya. It provides the following data for the 2018 for each product lines :

Particulars	Lemon	Grapes	Papaya
Revenues (Rs.)	79,350	2,10,060	1,20,990
Cost of goods sold (Rs.)	60,000	1,50,000	90,000
Cost of bottles returned (Rs.)	1,200	0	0
Number of purchase orders placed	36	84	36
Number of deliveries received	30	219	66
Hours of shelf stocking time	54	540	270
Items sold	12,600	1,10,400	30,600

Asian Mfg. Co. also provides the following for the year 2018 :

Activity	Description of Activity	Total Costs (Rs.)	Cost Allocation Basis
Bottle returns	Returning of empty bottles to the store	1,200	Direct tracing to product line
Ordering	Placing of orders of purchases	15,600	156 purchase orders
Delivery	Physical delivery and the receipts of merchandise	25,200	315 deliveries
Self - stocking	Stocking of merchandise on store shelves and ongoing restocking	17,280	864 hours of time
Customer support	Assistance provide to customers including bagging and checkout	30,720	1,53,600 items sold

**Required**

- Asian Mfg. Co. currently allocates store support costs ( all costs other than the cost of goods sold) to the product line on the basis of the cost of goods sold of each product line. CALCULATE the operating income and operating income as the percentage of revenue of each product line.
- If Asian Mfg. Co. allocates store support costs (all costs other than the cost of goods sold) to the product lines on the basis of ABC system, CALCULATE the operating income and operating income as the percentage of revenue of each product line.
- SHOW a comparison statement.

[MTP/OCT.19/2(A)]

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# HOME WORK

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