Question 1 is compulsory and attempt any 4 out of remaining 5

QUESTION 1:

Wings International is a major airline operating from India. It is the biggest airline operator within the domestic airline segment and is a well – established player in the international airline segment. Except for a period of few years as outlined below, Wings International has been operating for the last 3 decades in a segment that caters primarily to the business and premium segment travellers. On its international routes and certain long distance, yet busy domestic routes, the airline offers full service on – board. The ticket price includes on board entertainment, transfer of baggage between flights, more leg room, option to upgrade from economy to business class seats, meals and beverages etc. Baggage allowance is liberal with each flyer being allowed 2 checked in baggage and a cabin baggage. A tag line in its advertising goes "GRAB YOUR BAGS, THEY FLY FREE". In the domestic segment, the airline operates across major metro cities and certain other tier – 2 cities. International flights operate only from these major metro cities.

Indian aviation industry has been growing exponentially in the recent years due to a thriving economy. Consequently, there have been many new entrants in the domestic segment, offering low – cost fares to customers. These airlines have been offering tickets at huge discounts, thereby attracting a sizable chunk of customers away from Wings International. To counter this and maintain its market share, Wings International also followed suit. For a period of five years, tickets on various domestic routes were offered at low competitive price. At the same time, low fares can be offered only if it is profitable to do so. Therefore, certain cost management measures were undertaken. Wings International converted to a "no – frills" airline on most of the domestic routes. Now a ticket covered only the cost of the seat and 1 checked in baggage and 1 cabin baggage. Going further, baggage allowance was reduced to economize on space and fuel requirements. To avail any other facility, the flyer wanted had to purchase extra. Another measure taken was to offer last – minute deals of tickets at a heavy discount if the flight is not fully occupied. Vacant seats are "perishable", therefore instead of letting them go empty, the flight can be filled at cheaper rates. This yield management measure based on capacity utilization was expected to increase market share and subsequently the airline's revenue. Tickets could be booked online using the internet rather than through ticket kiosks maintained by the airline at various locations in selected cities.

In order to quickly respond to a competitor's move, the pricing and marketing staff were given sufficient autonomy to make this price war work. Therefore, in many situations, decisions could be taken even without the prior approval of the top management. Meanwhile adding to the stiff competition, fuel prices have been soaring in the last few years. Maintenance of aircrafts, staff compensation and other overheads have also been increasing. Landing fees in major airports have increased manifold due to congestion and limited slots on account of multiple airline operators vying for limited slots.

Given this scenario, after 5 years of operations, the management at Wings International found that they were not able to generate sufficient profits on many of the domestic routes. A price discount by a competitor had to be matched with a similar price discount by Wings International and vice versa. Offering last minute deals to fill up capacity did not generate additional revenue. The volume of last minute flyers was low. It was found that most flyers booking at the last minute were anyway “price indifferent”. Had the deals not been offered, the flyer would have been willing to pay more money anyway to use the airline. Therefore, neither did these deals generate extra customers nor extra revenue.

Wings International has always been perceived to cater the premium segment traveller, therefore participating in this price was had been contrary to its image of a premium quality airline. This left a section of the customers confused about the product offering. Therefore, the management of Wings International decided to discontinue its discount pricing strategy and exit the “low cost” airline business. The tickets are now being offered at its usual “full service” rates. This strategy is proposed to be followed for both current and prospective projects and operations.

The government has been formulating policies that are aimed at changing the landscape of the aviation sector. Airports are being built in smaller cities and towns that until date did not have one. This will improve connectivity within the country. It will increase air traffic as the public now has an alternate means to travel other than road and rail transport. Instead of flying between two small airports directly, Wings International proposes to develop a model where flyers from smaller towns are connected to one of the major metro cities which will serve as a main hub. For Wings International, the cost of operations will be lower as compared to flying point to point between the two small airports. For the passengers, better connectivity and more route options will be available. For example, a flyer from a smaller city, wanting to go to a destination abroad can now reach the nearest hub by flying with Wings. From the hub, Wings International can fly the passenger further to the desired destination abroad in its international fleet. For the flyer, this is a better alternative as compared to reaching the hub by say road transport. For Wings International, the proposition broadens its customers base. To this effect, Wings International is already scouting the market for smaller aircrafts that can be operated more economically on the hub – spoke route. Also, it is in talks with for partnership with other airlines, hotels, car rentals in order to offer attractive holiday packages to customers. Since most of the other airlines do not have the scale of operations to achieve the “hub – spoke” model or the ability to offer holiday packages, Wings International identifies this a unique proposition that it can offer its customers. This time the proposed tag line for its advertisement would be “WINGS TO FLY ANYWHERE ANYTIME”. Also, Wings International proposed to increase the turnaround time of flights for better capacity utilization.

Ticket booking is still offered over the internet. In the past, customers like this option due to the convenience it offered. Dedicated customer service lines available 24×7 to resolve issues is proposed.

The management of Wings International wants to have a seamless implementation of this project. This could be a game changer for the company that will help it consolidate its position in the aviation industry. Therefore, a meeting has been called to discuss critical reporting that needs to be in place that ensures a successful launch.

Required

(i) EVALUATE the strategy adopted by Wings International in becoming a "no frills" airline.

(ii) IDENTIFY the strategy adopted by Wings International for the proposed project.

(iii) The entire strategy of Wings International for the proposed project depends on information available about the future outlook in the industry. RECOMMEND guidelines to the management to put in place a control reporting mechanism that can enable Wings International to take preventive measures to avoid errors in its strategy.

(iv) In its previous venture, it took 5 years for Wings International to decide to exit the "no frills" airline operations. To avoid a delay in taking such decisions, RECOMMEND guidelines to the management to put in place a control reporting mechanism that can enable Wings International to correct its errors and make changes in its operations in a more – timely manner.

(20 marks)

Question 2:

(A) Eastern Company Ltd. has two Divisions namely Casnub Bogie Division (CBD) and Wagon Division (WD). CBD manufactures Casnub Bogies and WD manufactures BOBN types of Wagons. To manufacture a Wagon WD needs four Casnub Bogies. CBD is the only manufacturer of the Casnub Bogies and supplies both WD and outside customers. Details of CBD and WD for the coming financial year 2014 – 15 are as follows :

	CBD	**WD**
Fixed Costs (Rs.)	9,20,20,000	16,45,36,000
Variable Cost per unit (Rs.)	2,20,000	4,80,000*
Capacity per month (units)	320	12

*excluding transfer costs

Market research has indicated that the demands in the market for Eastern Company Ltd.'s products at different quotations are as follows :

For Casnub Bogies : Quotation price of Rs. 3,20,000 not tender will be awarded, but demand will increase by 30 Casnub Bogies with every Rs. 10,000 reduction in the unit quotation price below Rs. 3,20,000.

For Wagons : Quotation price of Rs. 17,10,000 no tender will be awarded, but the demand for Wagons will be increased by two Wagons will every Rs. 50,000 reduction in the unit quotation price below Rs. 17,10,000.

Required :

(i) Calculate the unit quotation price of the Wagon that will maximise Eastern Company Ltd.'s profit for the financial year 2014 – 15.

(ii) Calculate the unit quotation price of the Wagon that is likely to emerge if the divisional managers of CBD and WD both set quotation prices calculated to maximise divisional profit from sales to outside customers and the transfer price is set at market selling (quotation) price.

[Note : If P = a – bQ then MR = a – 2bQ] **(12 marks)**

(B)

CIMZ is a new banking company which is about to open its first branch in INDIA. CIMZ believes that in order to win customers from the market, in needs to offer potential customers a new banking experience. Other baking companies are focusing on interest rates and bank charges, whereas CIMZ believes that quality and timely availability of service is an important factor to attract customers.

Required

EXPLAIN how Total Quality Management would enable CIMZ to gain competitive advantage in the banking sector. **(8 marks)**

Question 3:

(A)

N2 Co. is the manufacturer and supplier of firefighting and safety equipment for industrial use and follows the international quality standards and uses the high grade raw material. It is a fast-growing brand that protects millions of people across the India, every single day. N2 has been offered a bid on a prospective export contract for 20,000 commercial fire extinguishers with following specification from USA buyer and the delivery terms is FOB.

"two-gallon cylinder holding 10 pounds of multi-purpose dry chemical at 380 PSI"

N2 is exporting first time. The price computation per fire extinguisher is as follows:

	Rs.	Rs.
Direct Material		
Circle Part Cost	620	
Necking Part	30	
Bottom Part	50	
Fire Extinguisher Powder	590	
Heat Process	50	
Nozzle	60	
Meter	20	
Pipe	50	
Nitrogen	30	1,500
Direct Labor (2 hrs. × Rs.40)		80
Leakage Testing		50
Variable Overheads (including packing)		214
Export Clearance Charges on FOB term		36

Fixed Overhead	100
Total	1,980
Add: Markup @ 10%	198
Price	2,178
USD to INR	67
Price in USD	**32.51**

After quotation of USD 32.51, the buyer is negotiating the price and ready to pay only USD 28.50.

Required

ADVISE whether it is worth accepting at USD 28.50 considering other factors.

(10 marks)

(B)

BYD Alloy Ltd. first opened its door in 1990 for business and now it is a major supplier of metals supporting over a dozen different industries and employs experts to support each industry. These include Wood & Panel Products Manufacturing, Hearth Products, Site Furnishings, Commercial and Residential Construction etc. It has grown through devotion to its customers, dedication to customer service and commitment to quality products. The company has two divisions: Division 'Y' and Division 'D'. Each division work as an investment centre separately. Salary of each divisional manager is Rs. 720,000 per annum with the addition of an annual performance related bonus based on divisional return on investment (ROI). A minimum ROI of 12% p.a. is expected to be achieved by each divisional manager. If a manager only achieves the 12% target, he will not be rewarded a bonus. However, for every whole 1% point above 12% which the division achieves for the year, a bonus equal to 3% of annual salary will be paid subject to a maximum bonus of 20% of annual salary. The figures belonging to the year ended 31 March 2018 are given below:

	Division 'Y' ('000)	**Division 'D' ('000)**
Revenue	29,000	17,400
Profit	5,290	3,940
Less: Head Office Cost	(2,530)	(1,368)
Net Profit	2,760	2,572
Non- Current Assets	19,520	29,960
Cash, Inventory, and Trade Receivable	4,960	6,520
Trade Payable	5,920	2,800
Manager Responsible	HAI	FAI

During the financial year 2017-18, FAI manager of Division 'D' invested Rs. 13.6 million in new equipment including an advanced cutting machine, which will increase productivity by 10% per annum. HAI, manager of Division 'Y', has made no investment during the year, even its computer system needs updation. Division 'Y''s manager has already delayed payments of its suppliers due to limited cash & bank balance although the cash balance at Division 'Y' is still better than that of Division 'D'.

Required:

(i) For each division, COMPUTE, ROI for the year ending 31 March 2018. EXPLAIN the figures used in your calculation. **(4 Marks)**

(ii) DISCUSS whether ROI provides justifiable basis for computing the bonuses of managers and the problems arising from its use at BYD for the year ended 31 March 2018. **(6 Marks)**

Question 4:

(A)

XL Polymers, located in Sahibabad Industrial Area, manufactures high quality industrial products. At industries has asked XL Polymers for a special job that must be completed within one week.

Raw material R_1 (highly toxic)will be needed to complete the AT Industries' special job. XL Polymers purchased the R_1 two weeks ago for Rs. 7,500 for a job 'A' that recently was completed. The R_1 currently in stock is the excess from that job and XL Polymers had been planning to dispose of it. XL Polymers estimates that it would cost them Rs. 1,250 to dispose of the R_1. Current replacement cost of R_1 is Rs. 6,000.

Special job will require 250 hours of labour G_1 and 100 hours G_2. XL Polymers pays their G_1 and G_2 employees Rs. 630 and Rs. 336 respectively for 42 hours of work per week. XL Polymers anticipates having excess capacity of 150 [G_1] and 200 [G_2] labour hours in the coming week. XL Polymers can also hire additional G_1 and G_2 labour on an hourly basis; these part – time employees are paid an hourly wage based on the wages paid to current employees.

Suppose that material and labour comprise XL Polymers's only costs for completing the special job.

Required :

Calculate the 'Minimum Price' that XL Polymers should bid on this job ? **(6 marks)**

(B)

Queensland Chemicals (QC) manufactures high-quality chemicals C-1, C-2 and C-3. Extracts from the budget for last year are given below:

	C-1	**C-2**	**C-3**
Sales Quantity (kg)	1,000	3,250	750
	Rs./ kg	**Rs./ kg**	**Rs./ kg**
Average Selling Price	17,600	2,560	22,400
Direct Material (C_2H_6O) Cost	8,000	1,280	9,600
Direct Labour Cost	3,200	480	4,800
Variable Overhead Cost	320	48	480

The budgeted direct labour cost per hour was Rs.160.

Actual results for last year were as follows:

	C-1	C-2	C-3
Sales Quantity (units)	900	3,875	975
	Rs./ kg	**Rs./ kg**	**Rs./ kg**
Average Selling Price	19,200	2,480	20,000
Direct Material(C_2H_6O) Cost	8,800	1,200	10,400
Direct Labour Cost	3,600	480	4,800
Variable Overhead Cost	480	64	640

The actual direct labour cost per hour was Rs.150. Actual variable overhead cost per direct labour hour was Rs.20. QC follows just in time system for purchasing and production and does not hold any inventory.

Required:

INTERPRET the Sales Mix Variance and Sales Quantity variance in terms of contribution.

(10 marks)

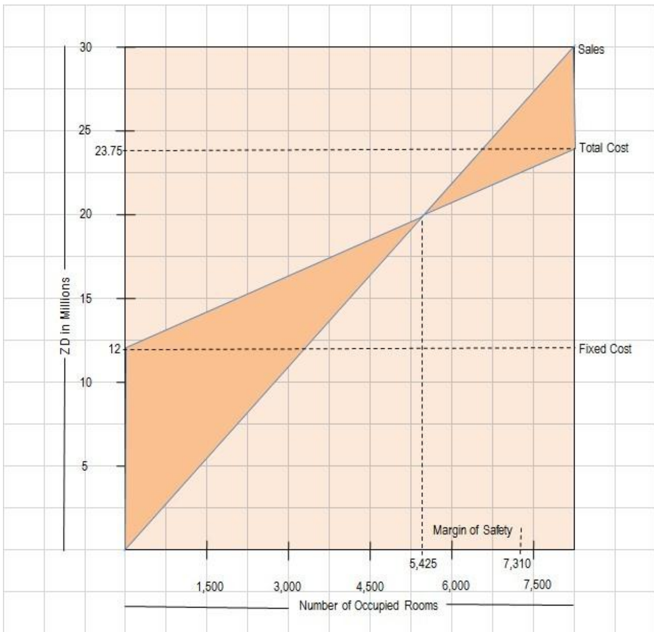
(C)

Hotel Nikko, Zeeland, an affordable leisure hotel resort is an ideal retreat to escape, unwind and enjoy peace of mind. Set amid expansive tropical greenery in the enclave of Zeeland, Hotel Nikko is designed for pleasure, where services reign supreme and Italian- style architecture of its 25 classic rooms harmonize with nature. Hotel Nikko, Zeeland is a beachfront resort that features a good choice of swim-up pool bar, gym, and variety of restaurants. A wide array of water sport activities like surfing, sailing, jet skiing etc. are available from beach operators at walking distance. The hotel is synonymous with enjoyment and value for money, with a large choice of very attractive “All Inclusive” packages.

Nikko charges guests ZD 2,700 per room per night, irrespective of single or double occupancy. The variable cost is ZD 900 per occupied room per night. The Nikko is available throughout 365 days a year and has a 75% budgeted occupancy rate. Fixed costs are budgeted at ZD 9 million and are incurred evenly during the year.

During the second quarter (Q2) of the year, usually the room occupancy rates remains substantially below the levels expected at other quarters of the year. Nikko is expecting to sell 900 occupied room nights during Q2. Management is considering strategy to improve profitability, including closing the Nikko for the duration of Q2 or adopting one possible option as follows –

There is scope to extend the Nikko by creating enough space to run a Rustic Chic, Italian Style restaurant to serve its guests. The annual revenues, costs and sales volumes for the combined operations are given in the following graph



Note

Zeeland's home currency is the ZD.

Required

ANALYZE the profit improvement plan.

(4 marks)

Question 5:

A fertilizer company produces Grade A and Grade B fertilizers. One kilogram of Grade A fertilizer sells for Rs. 280 per kilogram and one kilogram of Grade B fertilizer sells for Rs. 400 per kilogram.

The products pass through three cost centers CC1, CC2 and CC3 during the manufacturing process. Total direct material cost per kilogram of fertilizer produced is Rs. 300 and direct labor cost per kilogram of fertilizer produced is Rs. 200. Allocation between the cost centres is given below:

Particulars	CC1	CC2	CC3	Total
Cost of Direct Material (per kg of fertilizer produced)	Rs. 90	Rs. 120	Rs. 90	Rs. 300
Cost of Direct Labour (per kg of fertilizer produced)	Rs. 60	Rs. 80	Rs. 60	Rs. 200
Cost Allocation to Grade A	30%	50%	30%	
Cost Allocation to Grade B	70%	50%	70%	

All of expenses (considered to be overheads) per kilogram of fertilizer produced is Rs. 150. This is allocated equally between Grade A and Grade B fertilizer. Pricing decisions for the fertilizers is made based on the above cost allocation.

The management accountant of the company has recently come across the concept of environmental management accounting. Pricing of products should also factor in the environmental cost generated by each product. An analysis of the overhead expenses revealed that the total cost of Rs. 150 per kilogram of fertilizer produced, includes incinerator costs of Rs. 90 per kilogram of fertilizer produced. The incinerator is used to dispose the solid waste produced during the manufacturing process. Below is the cost center and product wise information of solid waste produced:

Waste produced (in tonnes per annum)	CC1	CC2	CC3	Total
Grade A	2	3	1	6
Grade B	2	2	5	9

Based in the impact that each product has on the environment, the management would like to revise the cost allocation to products based taking into account the incinerator cost that each product generates. The remaining overhead expenses of Rs. 60 per kilogram of fertilizer produced can be allocated equally.

Required:

(i) CALCULATE product wise profitability based on the original cost allocation. RECALCULATE the product wise profitability based on activity based costing methodology (environmental management accounting). **(12 Marks)**

(ii) ANALYZE difference in product profitability as per both the methods. **(4 Marks)**

(iii) RECOMMEND key takeaways for the company to undertake the above analysis of overhead costs and pricing as per environmental management accounting. **(4 Marks)**

Question 6:

Learning Horizons is an educational institute that conducts courses for students in accounting, law and economics. The institute is partially funded by the government. The institute aims to provide quality education to students of all backgrounds. The institute admits students who can fund their education privately as well as those who get sponsorship from the government. Knowledgebase is another educational institute in the same city providing courses similar to Learning Horizons. It is entirely private funded college where students arrange to pay for their own fees. It can be taken as a peer institution for comparison purposes.

Information about their operations for the year ended March 31, 2018 are as follows :

(1) Both Learning Horizons and Knowledgebase offer their courses that last the entire year. All of them are regular classroom lectures conducted through the week.

(2) Budget and actual fee rate structure for the year are the same. Information about the fees for each course are as follows :

Budget and Actual Fees in Rs.

Course Type	Learning Horizons		Knowledgebase
	Privately Funded	**Government Funded**	**Private Funded**
Accounting	1,20,000	75,000	1,00,000
Law	1,20,000	90,000	1,50,000
Economics	80,000	60,000	1,00,000

(3) Salary details for lecturers and administrative staff are as follows :

Salaries in Rs.

Staff	Learning Horizons		Knowledgebase
	Budget	**Actual**	**Actual**
Lecturers	5,00,000	5,50,000	6,00,000
Administrative staff	3,00,000	3,00,000	4,00,000

(4) Budgeted costs for the year based on 8,500 students per annum for Learning Horizons are as below :

Costs	Amounts (Rs.)	Variable Cost %	Fixed Cost %
Tuition Material	40,00,00,000	100%	----
Catering	10,00,00,000	75%	25%
Cleaning	1,00,00,000	25%	75%
Other operating costs*	5,00,00,000	25%	75%
Depreciation	1,00,00,000	-----	100%

*includes cost of freelance staff

(5) Keeping in line with latest technological developments, the management of Knowledgebase is introducing on – line tuition support by its lecturing staff. Learning Horizons on the other hand offers distance learning course. A general feedback from prospective students has revealed that some students would like weekend courses since during the week they focus on their regular jobs. Also, some students have requested for intermediate qualification, in the event that they discontinue the course halfway due to inability to complete the course for other personal reasons.

(6) Both Learning Horizon and Knowledgebase have a policy to have a lecture staff of 50 throughout the year. When there is a shortfall in teaching staff available, instead of recruiting a fulltime lecturer, Knowledgebase substitutes the requirement with freelance staff for lectures. The cost of freelance staff is much lower than regular staff.

(7) Appendix with further details :

Sundry Statistics

For the year ended 31st March 2018

Particulars	**Learning Horizons**		**Knowledgebase**
	Budget	**Actuals**	**Actuals**
Number of students :			
Accounting	4,000	3,800	4,100
Law	2,500	2,550	2,500
Economics	2,000	1,500	1,200
Total students	8,500	7,850	7,800
Student mix (%) for each course :			
Privately funded	80%	70%	100%
Government funded	20%	30%	0%
Number of enquiries received :			
Accounting	4,500	4,500	4,600
Law	2,800	2,700	3,050
Economics	2,200	1,600	1,225
Total enquiries	9,500	8,800	8,875

Number of lecturers employed during the year	50	50	50
Number of lecturers recruited during the year :			
Accounting	2	4	1
Law	1	3	-
Economics	1	3	-
Total recruitment	4	10	1
Number of administrative staff	12	12	9
Pass Rate :			
Accounting	95%	99%	93%
Law	95%	98%	90%
Economics	95%	95%	95%
Overall Pass rates for the courses	95%	97%	93%
Days in a year when freelance lecturers were used	-	-	30
Number of new courses under development	-	-	6

You are the management accountant of Learning Horizons. The results for the year are to be reviewed next week by the management. To assess performance, you want to prepare the report as per the Fitzgerald and Moon model.

Required:

(i) Using the "Results" dimension of performance as per the Fitzgerald Moon model prepare a variance ANALYSIS of Learning Horizons actual and budgeted financial performance. Also, based on the information given in the problem, collate the actual financial figures for Knowledge base, use it as a basis to prepare ANALYSIS of competitiveness of Learning Horizons and Knowledgebase. **(10 marks)**

(ii) Using the "Determinants" dimension of performance as per the Fizgerald Moon model EXPLAIN
(a) Quality of service
(b) Flexibility
(c) Resource utilization
(d) Innovation **(7 marks)**

(iii) Course fees set by the government for various subjects cannot be increased beyond an average of Rs. 75,000 per student. If the costs are maintained within this budget, the government can provide more sponsorship or grants in future. ADVISE a method that the management of Learning Horizons can use to resolve this. **(3 marks)**