



Time Allowed – 2 Hours

Maximum Marks – 60

Roll No.:

- (i) Attempt both the cases 1 and 2 carrying 30 marks each.
- (ii) Answers must be neat, relevant and brief.
- (iii) In marking the question paper, the examiners take into account clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram or chart where appropriate.
- (iv) Read the instructions printed on the top cover of answer script CAREFULLY before attempting the paper.
- (v) Use of non-programmable scientific calculator of any model is allowed.
- (vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
- (vii) Multiple Choice Questions (MCQs) printed separately, is an integral part of this question paper.
- (viii) Question paper must be returned to the invigilator before leaving the examination hall.

CASE # 1

Marks

Skyways, a small car hire firm, is considering to revise its future cash flows. The directors of the company are interested in deciding the optimal replacement cycle for the fleet of three cars during the period from now, i.e., the end of June 2013 to the end of June 2019. On July 1, 2013, the company purchased its existing fleet at a cost of Rs. 1,500,000. The vehicles are going to be depreciated in the books of accounts over a three-year life, on straight-line basis.

Inflation is 10% per annum, and it is thought that it will continue at this rate for the foreseeable future. New car prices will increase in line with inflation, but second hand values are expected to remain at the present levels for a number of years. The resale values of various age-group cars are as under:

	Rupees
Life of Car	Resale Value
One year old car	350,000
Two year old car	200,000
Three year old car	25,000

The revenue from operating the fleet is expected to be Rs. 1,250,000 in 2013-14. This annual revenue is expected to increase at a rate of 10% per annum irrespective of the age of the vehicles. The operating and maintenance costs for 2013-14 are estimated to be:

- Rs. 350,000 for cars in the first year of their life.
- Rs. 500,000 for cars in the second year of their life.
- Rs. 800,000 for cars in the third year of their life.

The operating and maintenance costs are expected to increase at a rate of 10% per annum in line with inflation. The cars are no worth keeping for longer than three years. The company's cost of capital is 15%.

Required:

You are asked to advise the company on the optimal replacement policy for its fleet of cars for the period July 1, 2013 to June 30, 2019. You can ignore taxation, and can assume that the cash flows relating to revenue and operating costs arise on the last day of the respective years.

(Figures may be rounded upto Rs. 5,000)

30

CASE # 2

Marks

HiTech, a division of Excellent Services Group, offers management and computer consulting services to clients throughout the country. The division specializes in customized software. The management is pleased with the performance of HiTech for the first nine months of the current year and has advised the divisional manager to submit a revised forecast for the remaining quarter, as the division has exceeded the year-to-date plan by 20% of operating income. An unexpected increase in billed hour volume over the original plan is the main reason for increase in income. The original operating budget for the first three quarters for HiTech is as follows:

HiTech Operating Budget for the year 2013

	Rupees			
	1st Quarter	2nd Quarter	3rd Quarter	Total for First Three Quarters
Revenue:				
Consulting fees:				
Computer system consulting	4,218,750	4,218,750	4,218,750	12,656,250
Management consulting	<u>3,150,000</u>	<u>3,150,000</u>	<u>3,150,000</u>	<u>9,450,000</u>
Total consulting fees	7,368,750	7,368,750	7,368,750	22,106,250
Other revenue	<u>100,000</u>	<u>100,000</u>	<u>100,000</u>	<u>300,000</u>
Total revenue	<u>7,468,750</u>	<u>7,468,750</u>	<u>7,468,750</u>	<u>22,406,250</u>
Expenses:				
Consultant salary expenses	3,867,500	3,867,500	3,867,500	11,602,500
Travel and related expenses	456,250	456,250	456,250	1,368,750
General and administrative expenses	1,000,000	1,000,000	1,000,000	3,000,000
Depreciation expense	400,000	400,000	400,000	1,200,000
Allocated expenses	<u>500,000</u>	<u>500,000</u>	<u>500,000</u>	<u>1,500,000</u>
Total expenses	<u>6,223,750</u>	<u>6,223,750</u>	<u>6,223,750</u>	<u>18,671,250</u>
Operating income	<u>1,245,000</u>	<u>1,245,000</u>	<u>1,245,000</u>	<u>3,735,000</u>

The division manager reflects the following information in revised forecast for the fourth quarter:

- HiTech currently has 25 consultants, 10 for management consulting and 15 for computer systems consulting. Three (3) additional management consultants have been hired to start work at the beginning of the fourth quarter in order to meet the increased client demand.
- The hourly billing rate for consulting revenue will remain Rs. 900 per hour for each management consultant and Rs. 750 per hour for each computer consultant. However, due to the favourable increase in billing hour volume when compared to the plan, the hours for each consultant will be increased by 50 hours per quarter.
- The budgeted annual salaries and actual annual salaries, paid monthly, are the same i.e., Rs. 500,000 for a management consultant and Rs. 460,000 for a computer consultant. The management has approved a merit increase of 10% at the beginning of the fourth quarter for all 25 existing consultants, while the new consultants will be compensated at the planned rate.
- The planned salary expense includes a provision for employee fringe benefits amounting to 30% of the annual salaries. However, the improvement of some group-wide employee programs will increase the fringe benefits to 40%.
- The original plan assumes a fixed hourly rate for travel and other related expenses for each billing hour of consulting. These are expenses that are not reimbursed by the client, and the previously determined hourly rate has proven to be adequate to cover these costs.

- Other revenue is derived from temporary rentals and interest income and remains unchanged for the fourth quarter.
- General and administrative expenses have been favourable at 7% below the plan; this 7% savings on fourth quarter expenses will be reflected in the revised plan.
- Depreciation of office equipment and personal computers will remain constant at the projected straight-line rate.
- Due to the favourable experience for the first three quarters and the division's increased ability to absorb costs, the management of Excellent Services Group has increased the allocation of expenses by 50%.

Required:

- (a) Prepare a revised operating budget for the fourth quarter for HiTech that the divisional manager will present to management of the group. **27**
- (b) Discuss the reasons why an organization should prepare a revised operating budget? **03**

THE END

PRESENT VALUE FACTORS											
Year	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694
3	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
4	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
5	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
6	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335
7	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
8	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
9	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
10	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162

CUMULATIVE PRESENT VALUE FACTORS											
Year	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
2	1.736	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.487	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.170	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.791	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.355	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.868	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.335	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.759	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	6.145	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192