XLRI Jamshedpur School of Business & Human Resources		PMIR – Term III – Course: *Basic Financial Management*	
Quiz I Examination			
Weightage	**15%**	**Duration**	**60 minutes**

Name ____________________________ **Roll No**. ______________________

INSTRUCTIONS

A – Answer all questions.

B – In case of multiple-choice questions, you are required to mark (tick) the appropriate choice in the question paper attached and also work the calculation out (or clearly discuss the reasons) in the space provided.

B – In case of fill in the blank questions, you are required to write the appropriate answer in the space provided in the question paper attached and also work the calculation out (or clearly discuss the reasons) in the space provided.

C – Students cannot use laptop. Only calculators are allowed.

D – Students cannot bring their mobiles inside exam room.

E – You are not allowed to borrow book, paper, calculators, etc.

F – Anyone who resorts to unfair practices, as judged by the examiner, the minimum penalty will be zero in this segment of evaluation, while the maximum penalty could be expulsion from the institute. There will be no further warnings.

[Each Correct answer + 1.0 marks; Wrong answer / No Attempt – 0.25 marks]

Case I: Ideas from the recent MAXI Fair

LPG Conversion Kit Dealers, Jamshedpur, had put up a stall at Maxi fair. Our own faculty, Ramji ran into the same. The sales guy tried to convince Ramji to convert his car such that he runs car on LPG instead of petrol, by saying that although LPG (Liquid Petroleum Gas or Autogas) is a fossil fuel, it is much cheaper to buy than petrol, and the safety wouldn't be compromised. Further, the original petrol tank will be fully retained and the owner can choose between petrol and LPG through a fuel choice switch, which will be placed within easy reach of the driver.

Professor Ramji being a total marwari in thoughts, deeds, and words collected the following information. The LPG Gas system would cost Rs. 19,000 and he can get it installed for an additional Rs.1,000. The life of this system would be four years, at the end of which it will be scrapped at Nil value. An additional working capital of Rs. 2,000 will be required from day 1, if this new system is placed, however this will be recovered at the end of fourth year.[1] Price per liter of Gas would cost Rs.30 and this will give mileage of 20 km/liter (the same mileage which his car is currently giving, when run on petrol). He is sure that a depreciation of 40% on Written Down Value Method can be claimed on CAPEX. Assume that the current rate of petrol is Rs.70/liter. Ramji decides to use an income tax rate @ 30% for evaluating this proposal. Ramji knows that alternate avenues for investing this money (in similar risk projects) can give him return of 16% and hence he decides to use the same discounting rate. In case of loss in any year, he was aware that he had enough other projects wherein the tax could be easily adjusted in the same year.[2]

[1] This is because of the low number of LPG filling station in Jamshedpur and hence the need to keep the tank filled / topped up (unlike a petrol driven vehicle with hazaar petrol pumps).

[2] Implies – please assume that in case of loss, Ramji gets an income tax credit which can be claimed to reduce the consolidated tax liabilities.

Professor Ramji travels to mandir (= temple) every day, without missing even a single day of the year and takes out his car only to go to mandir, which is 5 kms from his residence. To go to all other places he prefers to use his environment friendly bi-cycle. Also assume that if the Professor installs this machine he will never use diesel, and only use LPG. You are requested by him to find out whether this conversion plan is feasible, by calculating the NPV. Ramji would also like to know the IRR. (For convenience assume that all the 4 years have 365 days).

1. The LPG Conversion Car Kit Proposal for Ramji's has a NPV of ________________________

2. The LPG Conversion Car Kit Proposal for Ramji's has a IRR of __________________________

Will your answer change if the life of the system is 6 years instead of 4 years and why? (You are expected to show all the calculations)

3. The Conversion Proposal for Ramji with 6-year life has a NPV of _________________________

4. The Conversion Proposal for Ramji with 6-year life has a IRR of ________________________

5. Please conclude your analysis with the following conclusion:

   Ramji should (or should not) take up with proposal as ___________________________________
   ____
   ____
   ____

Professor Ramji was travelling to Ranchi in a local AC taxi and the driver Ajith-da (tel. 9934340390) was complaining about the rising fuel prices. He said that he has to travel on an average 40Km/day for 365 days a year. The free gyan giver, Ramji, immediately suggested him to switch over to LPG system instead of petrol. Suggest whether Ajith should make this change, using NPV. Also calculate the IRR. All other data and assumptions given in (a) above holds good in this case also.

6. The LPG Conversion Car Kit Proposal for Ajith's has a NPV of _________________________

7. The LPG Conversion Car Kit Proposal for Ajith's has a IRR of __________________________

Will your answer change if the life of the system is 6 years instead of 4 years and why? (You are expected to show all the calculations)

8. The Conversion Proposal for Ajith with 6-year life has a NPV of ________________________

9. The Conversion Proposal for Ajith with 6-year life has a IRR of _________________________

10. Ideally, what changes in other data / assumption would you have done in the case of Ajith-da's proposal (please mention the same with reasoning):
    ____
    ____

Case II: Taxi-pangs for Jadi Buti wala

The following case demonstrates how the establishment of a transfer price affects income taxes. Baidyah Kabiraj Dr. De De Dege is the CEO of Dr. De De Drugs Limited. He went to Himalayas for trekking and discovered a new "jadi buti" … Eureka! Eureka!

He tested it in the laboratory and found that it could be processed into a medicine to cure Parasomnia. His company started manufacturing the tablet on a regular basis.

Dr. De De Drugs Limited, (parent) pharmaceutical company resides in India where it faces a marginal tax rate of 35% and has only one (wholly owned) subsidiary located in a foreign country (Singapore), named, Le Le Limited where the marginal tax rate is 20%. The parent pharmaceutical company manufactures this product for Rs. 20/- a goli (= tablet) and sells 100,000 golis to the subsidiary each year. The subsidiary, in turn, further processes each tablet at a cost of Rs. 10 per tablet and sells the finished product for Rs. 80 per tablet.

Dr. De De Drugs Limited, the parent company's sale represents its revenue, and the subsidiary's purchase represents part of its production cost. It is assumed that fixed cost for the parent and the subsidiary are Rs. 10 Lakhs and Rs 5 Lakhs, respectively.

There are two possible prices at which the golis can be transferred to the subsidiary, we call it the two scenarios.

In the first scenario you are required to assume that the transfer price is set at Rs XXX[3] per tablet. In the second scenario assume a transfer price of Rs YYY[4] per tablet. <u>Assume that in case of loss in any of the company, the company gets an income tax credit which can be claimed to reduce the consolidated tax liabilities.</u>

<u>Please assume Indian Rupee as the only currency (and hence, no foreign exchange hassles). Please show your workings in the answer sheets given.</u>

11. What is the taxable income of Le Le Limited in the second scenario?

Answer: ____

12. How much is the consolidated income before tax in the first scenario?

Answer: ____

13. How much is the consolidated income tax in the first scenario?

[3] Please take XXX as *<u>your roll number</u>*. In other words, if your roll number is 91 then XXX would be Rs 91

[4] Please take YYY as equal to *<u>122 minus your roll number</u>*. In other words, if your roll number is 91 then YYY would be Rs 122 – Rs 91 = Rs 31

Answer:____

14. How much is the consolidated net income after taxes in the second scenario?

Answer:____

15. What is the difference (in Rupees) between the world wide income tax in the first scenario and the second scenario?

Answer:____

16. What is the difference (in Rupees) between the world wide net income after taxes in the first scenario and the second scenario?

Answer:____

17. What is the difference (in Rupees) between the answer numbers 15 and 16 and why?

Answer:____
Reason:

18. If an advertising expense of Rs. 2 lakhs is incurred by the company to promote this new product[5], as a finance advisor in whose Profit and Loss Account would you like to claim this expense and why? (consider it only from taxation point of view)

Answer: ____________________
Reason:

19. Which of the following is a reason because of which a parent company prefers issuing debt to equity, to it's subsidiary?

a) Equityholders have a priority over lenders
b) Dividends are not tax deductible
c) To increase it's debt to equity ratio
d) None of the above

Reason:

20. Dr. De De Drugs Limited has advanced an interest bearing loan of Rs. 10 Lakhs (@25% p.a.) to Le Le Limited, how will it affect the consolidated taxes of the company?

a) Increase the total taxes
b) Decrease the total taxes
c) No effect as it is just a book adjustment
d) Cannot be determined

Reason:

[5] Say, as a neon light hoarding in a table tennis game being played between India and Singapore only.