Test Series: October 2022

MOCK TEST PAPER 2

FINAL COURSE: GROUP – I

PAPER – 2: STRATEGIC FINANCIAL MANAGEMENT

*Question No. **1** is compulsory. Attempt any **four** questions from the remaining **five** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. (a) Mr. Mammen, an Indian investor invests in a listed bond in USA. If the price of the bond at the beginning of the year is USD 100 and it is USD 103 at the end of the year. The coupon rate is 3% payable annually.

CALCULATE the return on investment in terms of home country currency if:

(i) USD is Flat.

(ii) USD appreciates during the year by 3%.

(iii) USD depreciates during the year by 3%.

(iv) Indian Rupee appreciates during the year by 5%. **(6 Marks)**

(b) A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US$ 500 million. The net working capital requirements are estimated at US$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US$ 80, its variable cost per unit being US$ 40.

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

(i) Variable operating cost will be US $ 20 per unit of production;

(ii) Additional cash fixed cost will be US $ 30 million p.a. and project's share of allocated fixed cost will be US $ 3 million p.a. based on principle of ability to share;

(iii) Production capacity of the proposed project in India will be 5 million units;

(iv) Expected useful life of the proposed plant is five years with no salvage value;

(v) Existing working capital investment for production & sale of two million units through exports was US $ 15 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India.

(vii) Applicable Corporate Income Tax rate is 35%, and

(viii) Required rate of return for such project is 12%.

Assume that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax.

ADVISE whether the proposed project in India should be accepted or not.

Present Value Interest Factors (PVIF) @ 12% for five years are as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

(10 Marks)

(c) **EXPLAIN** outcomes of the Financial Planning. **(4 Marks)**

2. (a) ABC Company is considering acquisition of XYZ Ltd. which has 1.5 crores shares outstanding and issued. The market price per share is ₹ 400 at present. ABC's average cost of capital is 12%. Available information from XYZ indicates its expected cash accruals for the next 3 years as follows:

Year	₹ Cr.
1	250
2	300
3	400

CALCULATE the range of valuation that ABC has to consider. (PV factors at 12% for years 1 to 3 respectively: 0.893, 0.797 and 0.712). **(6 Marks)**

(b) The shares of TIC Ltd. are currently priced at ₹ 415 and call option exercisable in three months' time has an exercise rate of ₹ 400. Risk free interest rate is 5% p.a. and standard deviation (volatility) of the share price is 22%. The TIC Ltd. is not going to declare any dividend over the next three months.

(i) **DECIDE** whether the option worth buying for ₹ 25.

(ii) **CALCULATE** the value of aforesaid call option if the current price of share is considered as ₹ 380.

(iii) **CALCULATE** the value of aforesaid call option if present price of share is taken as ₹ 408 and a dividend of ₹ 10 is expected to be paid in the two months' time.

Given

In(1.0375) = 0.03681, In(0.95) = -0.05129 and In(0.9952) = -0.00481

$e^{0.0125}$ = 1.0126 and $e^{0.00833}$ = 1.0084

Cumulative Area of Number of S.D. from Mean (z)

z	0.0150	0.1250	0.3933	0.5033	-0.2976	-0.4076
Area	0.5060	0.5497	0.6530	0.6926	0.3830	0.3418

(10 Marks)

(c) **EXPLAIN** the parameters to identify the currency risk? **(4 Marks)**

3. (a) (i) The Bank BK enters into a Repo for 9 days with Bank NE in 6% Government bonds 2022 for an amount of ₹ 2 crore. The other relevant details are as follows:

First Leg Payment (Start Proceed)	₹ 2,00,06,750
Second Leg Payment (Repayment Proceed)	₹ 2,00,31,759
Initial Margin	1.25%
Days of accrued interest	240

Assume 360 days in a year.

CALCULATE:

(1) Repo Rate

(2) Dirty Price and

(3) Clean Price **(4 Marks)**

(ii) Aggressive Ltd. is proposing to fund its expansion plan of ₹ 12 crore by making a rights issue. The current market price (CMP) is ₹ 40. The Board is willing to offer a discount of 20% on the CMP for the rights issue. The Board is also desirous that the fall in Ex-right price of the shares be restricted to 10% of CMP.

CALCULATE:

(1) The number of new equity shares to be offered for each rights held,

(2) Theoretical value of right and

(3) The total number of equity shares to be issued. **(4 Marks)**

(b) (i) M/s. Strong an AMC has floated a dividend bonus plan on 1st April, 2016 at a certain net asset value (NAV). The fund has a robust growth and has declared a bonus of 1:5 (1 bonus unit for 5 right units held) on 30th September, 2017 and a second bonus of 1:4 (1 bonus unit for 4 right units held) on 30th September 2019. The fund, as on 31st March 2021, has generated an average yield of 17.5%.

Mr. Optimistic has made an investment of ₹ 16 lakhs in the plan before the declaration of the first bonus and remain invested thereafter.

The following information is also available :

Date	01.04.2016	30.09.2017	30.09.2019	31.03.2021
NAV (₹)	?	85	92	100

CALCULATE the opening NAV, which is required by Mr. Optimistic to calculate the capital appreciation. **(4 Marks)**

(ii) The Asset Management Company of the mutual fund (MF) has declared a dividend of 9.98% on the units under the dividend reinvestment plan for the year ended 31st March, 2021. The investors are issued additional units for the dividend at the rate of closing Net Asset Value (NAV) for the year as per the conditions of the scheme.

The closing NAV was ₹ 24.95 as on 31st March, 2021. An investor Mr. X who is having 20,800 units at the year-end has made an investment in the units before the declaration of the dividend and at the rate of opening NAV plus an entry load of ₹ 0.04. The NAV has appreciated by 25% during the year.

Assume the face value of the unit as ₹ 10.00.

CALCULATE:

(1) Opening NAV,

(2) Number of the units purchased,

(3) Original amount of the investment. **(4 Marks)**

(c) **EXPLAIN** briefly the various methods as how to approach Pitch presentation. **(4 Marks)**

OR

EXPLAIN briefly some of the sources for funding a Start-up. **(4 Marks)**

4. (a) SAM Ltd. has just paid a dividend of ₹ 2 per share and it is expected to grow @ 6% p.a. After paying dividend, the Board declared to take up a project by retaining the next three annual

dividends. It is expected that this project is of same risk as the existing projects. The results of this project will start coming from the 4th year onward from now. The dividends will then be ₹ 2.50 per share and will grow @ 7% p.a.

An investor has 1,000 shares in SAM Ltd. and wants a receipt of at least ₹ 2,000 p.a. from this investment.

DEMONSTRATE how the market value of the share is affected by the decision of the Board. Also demonstrate as to how the investor can maintain his target receipt from the investment for first 3 years and improved income thereafter, given that the cost of capital of the firm is 8%. **(8 Marks)**

(b) A Ltd. has an expected return of 22% and Standard deviation of 40%. B Ltd. has an expected return of 24% and Standard deviation of 38%. A Ltd. has a beta of 0.86 and B Ltd. has a beta of 1.24. The correlation coefficient between the return of A Ltd. and B Ltd. is 0.72. The Standard deviation of the market return is 20%.

Required:

(i) **ADVISE** whether investing in B Ltd. better than investing in A Ltd.?

(ii) **CALCULATE** Expected Rate of Return and Standard Deviation of your Portfolio if you invest 30% in B Ltd. and 70% in A Ltd.

(iii) **CALCULATE** the market portfolios expected rate of return and the risk-free rate of return.

(iv) **CALCULATE** the beta of Portfolio if A Ltd.'s weight is 70% and B Ltd.'s weight is 30%?

(8 Marks)

(c) There exists a vast difference between Project and Parent cash flow. **EXPLAIN.** **(4 Marks)**

5. (a) Mr. X is having 1 lakh shares of M/s. Kannyaka Ltd. The beta of the company is 1.40.

Mr. Y a financial advisor has suggested for having the following portfolio:

Security	Beta	% holding
S	1.20	10
K	0.75	10
P	0.40	30
D	1.40	50
		100

Market Return is 12%

Risk free rate is 8%

Required:

(i) **CALCULATE** the expected return based on CAPM for the present investment and suggested portfolio and also in the following scenarios

(1) If the market return goes up by 2.5%.

(2) If the market return goes down by 2.5%

(ii) **ADVISE** Mr. X whether to continue the holdings of M/s. Kannyaka Ltd. or to buy the portfolio as per the suggestion of Mr. Y if the probability of market giving negative return is more.

(8 Marks)

(b) M/s. Parker & Co. is contemplating to borrow an amount of ₹60 crores for a Period of 3 months in the coming 6 month's time from now. The current rate of interest is 9% p.a., but it may go up in 6 month's time. The company wants to hedge itself against the likely increase in interest rate.

The Company's Bankers quoted an FRA (Forward Rate Agreement) at 9.30% p.a.

CALCULATE the Final settlement amount, if the actual rate of interest after 6 months happens to be: (i) 9.60% p.a. and (ii) 8.80% p.a.

Note: Make calculations on months basis. **(8 Marks)**

(c) **EXPLAIN** briefly the Dow Theory. **(4 Marks)**

6. (a) Reliable Industries Ltd. (RIL) is considering a takeover of Sunflower Industries Ltd. (SIL). The particulars of 2 companies are given below:

Particulars	Reliable Industries Ltd	Sunflower Industries Ltd.
Earnings After Tax (EAT)	₹ 20,00,000	₹ 10,00,000
Equity shares O/s	10,00,000	10,00,000
Earnings per share (EPS)	2	1
PE Ratio (Times)	10	5

Required:

(i) **CALCULATE** the market value of each Company before merger?

(ii) **EVALUATE** whether the shareholders of both companies will be better or worse off than they were before the merger assuming that the management of RIL estimates that the shareholders of SIL will accept an offer of one share of RIL for four shares of SIL and there are no synergic effects.

(iii) **ANALYSE** whether the shareholders of RIL will be better off or worse off than before the merger if due to synergic effects, the management of RIL estimates that the earnings will increase by 20% and the shareholders of SIL will accept an offer of one share of RIL for four shares of SIL. **(8 Marks)**

(b) Mr. D is interested in purchasing equity shares of XYZ Ltd. which are currently selling at ₹ 600 each. He expects that price of share may go upto ₹ 780 or may go down to ₹ 480 in three months. The chances of occurring such variations are 60% and 40% respectively. A call option on the shares of XYZ Ltd. can be exercised at the end of three months with a strike price of ₹ 630.

Required:

(i) **SUGGEST** the combination of share and option should Mr. D select if he wants a perfect hedge?

(ii) **CALCULATE** the value of option today if the risk free rate is 10% p.a.

(iii) **CALCULATE** the expected rate of return on the option? **(8 Marks)**

(c) Despite the fact there may be some degree of overlapping in one or more common factors of unrelated Companies come together to form an entity. **EXPLAIN.** **(4 Marks)**