

Roll No. ...

Total No. of Questions – 6

Total No. of Printed Pages – 11

Time Allowed – 3 Hours

Maximum Marks – 100

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Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

Question No. 1 is compulsory.

Candidates are also required to answer any **four** questions from the remaining **five** questions.

Working notes should form part of the respective answer.

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1. (a) M/s. KPMS Ltd. wants to purchase M/s. BRB Ltd., by exchanging 0.7 of its share for each share of M/s. BRB Ltd., relevant financial data are as follows :

	M/s. KPMS Ltd.,	M/s. BRB Ltd.,
Equity shares outstanding	20,00,000	8,00,000
EPS (₹)	40	28
Market price per Share (₹)	250	160

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- i. Illustrate the impact of merger on EPS of both companies.
 - ii. The management of M/s. BRB Ltd., has quoted share exchange ratio of 1:1 for the merger. Assuming that P/E ratio of M/s. KPMS Ltd. will remain unchanged after the merger, what will be the gain from merger for M/s. BRB Ltd. ?
 - iii. Find out the gain/loss to the shareholders of M/s. KPMS Ltd. if the exchange ratio is 1 : 1 ?
 - iv. Determine the maximum exchange ratio acceptable to shareholders of M/s. KPMS Ltd.
- (b) Following are the details of closed ended equity schemes of two mutual funds as on 31/08/2021 :

Particulars	AJ Mutual Fund	RP Mutual Fund
NAV (p.u.)	₹ 80 (consisting 95% equity & remaining cash balance)	₹ 61 (consisting ₹ 60 equity & remaining cash balance)
Sharpe Ratio	1.5	3
Treynor Ratio	12	10
Standard Deviation	10	6

There is no change in portfolios during the September month.

Monthly cost is ₹ 0.50 per unit for each mutual fund scheme.

Share market rose by 2% in the month of September.

You are required to calculate Expected NAV p.u. as on 30/09/2021 for both the schemes.

- (c) What is the mode of financing is called in Startups, when a person attempts to found & build a company from personal finances or from the operating revenues of a new company. Explain briefly the methods of this mode.

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2. (a) Following is the information of M/s. DY Ltd. for the year ending 31/03/2021 :

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Particulars	
Sales	₹ 1000 Lakh
Operating Expenses Including Interest	₹ 620 Lakh
8% Debentures	₹ 250 Lakh
Equity Share Capital (Face value of ₹ 10 each)	₹ 250 Lakh
Reserves and Surplus	₹ 250 Lakh
Market Value of DY Ltd	₹ 900 Lakh
Corporate Tax Rate	30%
Risk free Rate of Return	7%
Market Rate of Return	12%
Equity Beta	1.4

You are required to-

- Calculate Weighted Average Cost of Capital of DY Ltd.
- Calculate Economic Value Added
- Calculate Market Value Added

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- (b) On 31/08/2021 Mr. R has taken a Long position of Two lots of Nifty Futures at 17300.

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One lot of Nifty future is 50 units.

Initial Margin required is 10% of Contract Value.

Maintenance Margin required is 80% of Initial Margin.

The closing price of 5 days are given below-

Date	Closing Price of Nifty Future
01/09/2021	17340
02/09/2021	17180
03/09/2021	16990
06/09/2021	16900
07/09/2021	17120

You are required to-

- Prepare a statement showing the daily balances in the margin account & payment on margin calls, if any.
 - Compute the Gain or Loss of Mr. R, if contract squared off on 07/09/2021.
 - What would be the Gain or Loss if Mr. R, had taken the short position ?
- (c) Which type of risk covers the default by the counterparty ? List out the ways to manage this type of risk.

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3. (a) On 01/04/2020 Mr. K Invested in the following companies to make his portfolio :

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Name of Company	No. of Equity Share Purchase	Face Value per Equity Share	Purchase Price per Equity Share
PK Ltd.	2000	₹ 10	₹ 210
KD Ltd.	1000	₹ 10	₹ 290

Mr. K expects that-

- (i) Dividend for the financial year 2020-21 of PK Ltd. & KD Ltd. will be 40% & 50% respectively.
- (ii) Probabilities of the Market Price as on 31/03/2021 as under-

Probability Factor	Market Value per Equity Share of PK Ltd.	Market Value per Equity Share of KD Ltd.
0.4	₹ 200	₹ 300
0.4	₹ 240	₹ 320
0.2	₹ 260	₹ 350

You are required to -

- (i) Calculate the Expected Market Price of Equity Shares of both the Companies as on 31/03/2021.
- (ii) Calculate the Expected Average Return of the Portfolio for the year 2020-21.

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- (b) On 1st July 2021 Mr. P has made the following investment :

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Name of the Company	No. of Equity Shares	Beta Value	Purchase Price per Equity Share
ML Ltd.	1000	1.25	₹ 700

He wants to hold the investment till end of September 2021 with an expectation of huge dividends to be announced in the AGM.

On the date of investment, September Nifty Futures are quoting at 17500 and tradeable with lot size of 50 for each contract.

You are the Investment advisor to Mr. P,

- Please advise Mr. P how to hedge his market exposure using the available data.
- Calculate the profit or loss of Mr. P during the expiry of September 2021 futures in following situation :
 - Nifty Future rise by 10%
 - ML Ltd. falls by 5%
- Is it possible stock as well as nifty to raise or fall at the same percentage ? Please state the reason.

- (c) Describe briefly on which principles Technical Analysis is based.

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4. (a) A US company wants to setup a manufacturing plant in India which requires an initial outlay of ₹ 8 Million. It is expected to have a useful life of 5 years with a salvage of ₹ 2 Million. The company follows straight line method of depreciation. To support additional level of activity, investment would require one time additional working capital of ₹ 1 Million.

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Since the cost of production lower in India, the variable cost of production would be ₹ 30 per unit. Additional fixed cost per annum is estimated at ₹ 0.5 Million. The company is projecting its annual sales to 80000 units at the price of ₹ 100 per unit. Applicable tax rate to the company is 34% and its cost of capital is 8%.

Inflation rates in US and India are expected to be 8% and 9% respectively. The current exchange rate is ₹ 72 per US Dollar.

Assuming that all profit will be repatriated every year and there will be no withholding taxes, estimate the net present value of the proposed project in India and evaluate its feasibility.

PVF @ 8% for the five years are as under :

Rate	1 Year	2 Year	3 Year	4 Year	5 Year
8%	0.926	0.857	0.794	0.735	0.681

- (b) A Japanese Company effected sales to X Ltd., an Indian Company, the payment being due after 3 months. The invoice amount is JPY 216 Lakhs, at today's spot rate it is equalent to ₹ 50 Lakhs. It is anticipated that exchange rate will decline by 8% over the 3 months period and in order to protect the JPY payments, the importer proposes to take appropriate action in the foreign exchange market. The 3 months forward rate is presently quoted as JPY 4.12 per rupee.

You are required to calculate the expected loss and show how it can be hedged by a forward contract.

- (c) Explain the pricing of the securitized instruments.

5. (a) TN Ltd. has ₹ 600 Lakh 10% bonds outstanding with 5 years remaining to maturity. Since interest rate is falling, TN Ltd. is planning of refunding these bonds with a ₹ 600 Lakh issue of 5 years bonds carrying a coupon rate of 7%. Issue cost of new bond will be ₹ 12 Lakh and call premium is 3%. ₹ 18 Lakh being the unamortised portion of issue cost of old bonds can be written off. Tax Rate applicable to TN Ltd. is 30%.

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You are required to analyse Bond Refunding Decision.

PVF @ 7% and 4.9% for five years are as under :

Rate	1 Year	2 Year	3 Year	4 Year	5 Year	Total
7%	0.935	0.873	0.816	0.763	0.713	4.100
4.90%	0.953	0.909	0.866	0.826	0.787	4.341

- (b) TT Ltd. is planning to hedge its foreign exchange risk. It has made a purchase on 1st April 2021 for which it has to make a payment of US \$ 1 Lakh on 30/09/2021. The present exchange rate is 1US \$ = ₹ 73. It can purchase forward 1US \$ at ₹ 74. TT Ltd. will have to make an upfront premium @ 1% of the forward amount purchased. The cost of the funds to the company is 10% p.a. In the following situations, compute the Gain/(Loss) of the TT Ltd. will make if they hedge with exchange rate on 30/09/2021 as:

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i. ₹ 76/US \$

ii. ₹ 70/US \$

iii. ₹ 79/US \$

Note : Calculation to be done on monthly basis.

- (c) Write the characteristics of venture capital Financing.

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6. (a) Following are the details of X Ltd. and Y Ltd. :

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Particulars	X Ltd.	Y Ltd.
Dividend per Share	₹ 4	₹ 4
Growth Rate	10%	10%
Beta	0.9	1.2
Current Market Price per Share	₹ 150	₹ 70

Other Information:

Risk Free Rate of Return	7%
Market Rate of Return	14%

- Calculate the price of shares of both the companies.
 - Write the comment on the valuation on the basis of price calculated and current market price.
 - As an investor what course of action should be followed ?
- (b) DD Ltd. a company based in India manufactures good quality of leather bags and sells to retail outlets in India and USA. The cost of quality leather in India is very high, the company is reviewing the proposal of importing of leather in bulk from USA supplier. The estimate of net US \$ and Indian ₹ Currency Cash Flows in nominal terms for this proposal is given below:

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	Net Cash Flow (in Lakh)			
Year	0	1	2	3
In US \$	(25)	5	7	8
In ₹	0	60	80	90
If not imported cost of leather to be purchased in India (in ₹)	400	450	500	600

Other information :

- DD Ltd. evaluates all investments by using discount rate of 9% p.a.
- All US customers are invoiced in US \$. US \$ Cash flows converted into ₹ at the forward rate and discounted at Indian Rate.
- Inflation in USA and India are expected to be 9% and 8% respectively.
- The current exchange rate 1 US \$ = ₹ 74

You are required to Calculate Net Present Value and recommend the decision. Present value factor @ 9% are as under :

1 Year	2 Year	3 Year
0.917	0.842	0.772

Note – Calculation to be made up to 2 decimal points.

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- (c) Buy and hold is one of the policies of portfolio rebalancing. Briefly explain other policies of portfolio rebalancing.

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OR

What are the main features of Forward Rate Agreements (FRA) ?