

K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

Program: PGDM(Exec), V Trim (Batch 2018-2019)

Subject: Strategic Risk Management

(End Term examination)

Maximum Marks: 50

Duration: 3 hours

Date: December 18, 2019

Notes:

Question 1 is compulsory. Attempt any 3 of the rest. Make suitable assumptions if required and state them.

Question 1

(20 Marks)

- (a) Explain the benefits that Strategic Risk Management brings to an organization and also discuss the impediments to successful implementation of the SRM process. (10 marks)
- (b) Royal Diamond Ltd is a large chain of five star hotels operating across India and major Asian cities. List and explain the major strategic, operational and financial risks to which this company is exposed and prepare a risk rating matrix for the same. (10 marks)

Question

2

(10 Marks)

- (a) An investment manager has a portfolio of Rs.10 million which is equally invested in Nifty stocks and USDINR. The weekly closing data for Nifty and USDINR for the past 26 weeks is given in the excel sheet. Compute the 1-week 95% Value-at-Risk for the portfolio using the Historical Simulation method and the given historical data. (5 marks)
- (b) Explain the concept of Value-at-Risk and briefly describe the three methods of computing VaR. (5 marks)

(5 marks)

Question

3

(10 Marks)

- (a) Bharat Energy Ltd Ltd is planning to submit a bid for an oil field in Mozambique and is working on the projections of production, sales and revenues from this oil field over the next 40 years. Explain with a suitable example how the use of the technique of Monte Carlo Simulation can help the company to inject randomness in its projections and thereby arrive at more realistic estimates of revenue and a more conservative bid as against a traditional NPV approach. No calculations are required. (5 marks)
- (b) A company making biscuits and confectionary is considering the use of wheat futures contracts traded on NCDEX for hedging its risk from fluctuations in prices of wheat. In this context, explain the main decisions involved in hedging of the exposure using exchange-traded wheat futures contracts.

(5 marks)

Question **4**

(10 Marks)

ABC Investment Managers Ltd has a portfolio management scheme (PMS) which accepts a minimum of Rs.25 lakh from investors (prior to change of PMS rules by SEBI). The investors' funds are invested in a diversified basket of securities with a lock-in period of 10 years during which no withdrawals are permitted and the cumulative amount is re-invested each year for 10 years. Assume that the portfolio return is normally distributed with a mean of 12% p.a. and a standard deviation of 25% p.a. Using Monte Carlo simulation, calculate the mean and the standard deviation of the portfolio balance at the end of 10 years. Also calculate the probability of an investor making a capital loss at the end of 10 years, i.e. ending with a balance lower than the initial investment of Rs.25 lakh. Use 1000 simulation trials.
(10 marks)

Question **5**

(10 Marks)

RNL Ltd, an American company, had issued sterling-denominated bonds of the face value of GBP 10 million on April 1, 2011. The bonds were due for redemption on March 31, 2017. The GBPUSD exchange rate in April 2011 was around 1.67 USD to the GBP with the sterling showing a tendency to appreciate against the dollar. Explain various alternatives available to RNL Ltd for hedging its exchange rate risk. The GBPUSD was 1.255 at the time of redemption of the bonds in March 2017. Show how each method of hedging would have panned out in the light of the appreciation of the dollar against the sterling. No calculations are required.

(10 marks)