Roll No.

Time allowed : 3 hours

Total number of questions : 6

- **NOTE** : 1. Answer ALL Questions.
 - 2. Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.
 - 3. Working notes should form part of the answer.

PART-I

- **1.** Comment on the following :
 - (a) Investment, financing and dividend decisions are inter-related finance functions.
 - (b) Term loan is associated with some specific features.
 - (c) Legal, Contractual and Internal Constraints and Restrictions needs to be considered while framing dividend policy.

(5 marks each)

Attempt all parts of either Q. No. 2 or Q. No. 2A

2. (a) Equity shares of YMC Corporation has a beta (β), of 1.4. The risk-free rate is 9%, and the market return is 21%. Determine the risk premium on its equity shares. Further determine cost of equity using the suitable model.

(3 marks)

(b) An investor is seeking an efficient portfolio with a correlation of 0.7 between the portfolio and the market and a standard deviation of 2.5%. The market standard deviation is 1.4% and the market rate of return is 16%, a rate that is double the return on risk-free securities. What is the required rate of return being sought by the investor ?

(3 marks)

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Maximum marks : 100

Total number of printed pages : 8

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- (c) A product requires 40 types of material every day for its manufacturing. A fixed cost of ₹ 50 per order is incurred for placing an order. The inventory carrying cost for each material is ₹ 0.02 per day. The lead period is 50 days. Assume 365 days in a year. Calculate the following :
 - (*i*) Economic Order Quantity (EOQ)
 - (*ii*) Re-order Level (ROL).

(3 marks)

(d) Calculate the Accounting Rate of Return (ARR) and rank the machine accordingly :

Particulars	Machine A	Machine B
Initial Investment	₹ 87,500	₹ 87,500
Cash flow after tax		
Year 1	26,250	8,750
Year 2	35,000	26,250
Year 3	43,750	35,000
Year 4	26,250	52,500
Year 5	17,500	35,000

Machine has to be written off over a period of 5 years by straight line method.

(3 marks)

(e) From the following information, calculate the expected rate of return of a portfolio : Risk-free rate of return

Risk-free rate of return	10%
Expected return on market portfolio	20%
Standard deviation of an asset	3%
Market standard deviation	2.8%
Correlation coefficient of portfolio with market	0.70

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OR (Alternate question to Q. No. 2)

2A. (i) A Private Ltd. Co. has assets worth ₹ 32,00,000 as on 31st March, 2018 that has been financed as follows :

Equity Shares of ₹ 100 each	18,00,000
General Reserve	3,60,000
Debt	10,40,000
For the year ended on 31st March, 2018, the Company's tot	al profits before interest

and taxes were \gtrless 6,23,000. The company pays 8% interest on borrowed capital and the tax bracket is 40%. The market value of equity share as on 31st March, 2018 was \gtrless 150 per share.

Calculate the weighted average cost of capital using market value as weights.

(5 marks)

(ii) The total turnover of X Ltd. is ₹ 50 lakhs of which 72% is on credit. Debtors are allowed one month to clear off the dues. A factoring company is willing to advance 80% of the bill raised on credit for a fee of 2% a month plus a commission of 10% on the total amount of debts. X Ltd., as a result of this arrangement, is likely to save ₹ 48,000 annually in management cost and avoid bad debts @ 1% on the credit sales.

A bank has come forward to make an advance equal to 80% of the debts at an annual interest rate of 15%. However, its processing fees will be @ 2% on the debts. Would you accept factoring or the offer from the bank ?

(5 marks)

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- (*iii*) ABC. Ltd. has a risk free asset yielding 0.02. During this period expected return of 0.09 and a standard deviation of 0.04 are based on past data of the market portfolio. The risk premium 0.07 is considered to be constant throughout the period. A security has a coefficient of correlation with market portfolio of 0.75 and standard deviation is 0.08. The expected standard deviation of market portfolio is now 0.04. On the basis of the given data, find out :
 - (*i*) Market's risk return trade-off; and (3 marks)
 - (*ii*) Security beta. (2 marks)
- **3.** Differentiate between the following :
 - (*a*) Forfaiting and Export Factoring
 - (b) Regular dividend policy and Stable dividend policy
 - (c) Net Income Approach and Net Operating Income Approach.

(5 marks each)

4. (*a*) ABC Ltd. is a firm that specializes in providing software services to its clients. In order to augment its time-share computer services to its clients, the firm is considering the purchase of an additional computer.

In this context, it has two alternatives, as mentioned below :

- (i) Purchasing the computer in lieu of making a payment of \gtrless 24,00,000.
- *(ii)* Entering into a lease agreement with a company with the following necessary terms and conditions :
 - (a) The computer has to be leased for a period of 3 years for ₹ 6,00,000 as annual lease rent in addition to 15% of the revenue accruing from gross time-share service.
 - (b) An additional payment of ₹ 5,00,000 needs to be done at the end of the third year.
 - (c) Payments as lease rent need to be made at the year end.
 - (*d*) After the completion of the specified period in the contract, the computer needs to be handed back to the lessor.

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As per the company estimates, the computer under review, presently will have a worth of $\overline{\mathbf{x}}$ 12 lakhs at the end of the third year with the forecast revenues as follows :

Year	₹
1	24,00,000
2	25,50,000
3	28,00,000

Other relevant details are as follows :

- (i) The Annual operating costs (excluding the depreciation/lease rent of the computer) are ₹ 10,00,000 as per estimates with an additional ₹ 2,00,000 being involved in start-up and training costs at the beginning of the first year.
- (ii) The aforesaid costs are to be borne by the lessee ABC Ltd. Further, the lessee will borrow at an interest rate of 15% to finance the acquisition of the computer. Repayments for the same have to be done as per the schedule specified below :

Year-end	Principal (₹)	Interest (₹)	Total (₹)
1	6,00,000	3,60,000	9,60,000
2	9,00,000	2,70,000	11,70,000
3	9,00,000	1,35,000	10,35,000

In order to depreciate its assets, ABC Ltd. employs the straight line method and makes a payment of 50% tax on its income.

You, as a company secretary, are approached by ABC Ltd. to give advice regarding the choice of the more beneficial alternative, with proper and justified reasons. Consider Present Value Factor at 9%

Year	Present value factor at 9%	Present value factor at 15%
1	0.917	0.870
2	0.842	0.756
3	0.772	0.658
		(8 marks)

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(b) Hindustan Chemical Ltd. has operating and capital structure with financial plan A and B under situations I and II. Annual production and sales are 75% of installed capacity.

Compute the operating, financial and combined leverage of financial plan A and B under situation I and II. And also interpret combined leverage with reference to highest value and lowest value under both financial plans as well as situations from the following information :

Installed capacity	10,000 u	inits
Selling price	₹ 40	
Variable cost per unit	₹ 20	
Fixed costs		
Situation I	₹ 15,00	0
Situation II	₹ 18,00	0
<u>Capital Structure</u>		
	<u>Financial Plan</u>	
	А	В
	₹	₹
Equity	30,000	40,000
Debt (12%)	40,000	30,000
Total	70,000	70,000

(7 marks)

PART-II

5. Case Study :

About the company

Black Diamond Ltd. (BDL) is a public limited company in Country-B engaged in mining and production of coal and coal products. The mission of the company is "to be a partner in the economy by producing and fulfilling the energy demand of the country by providing quality coal in economical and sustainable manner". The company is listed on a stock exchange of the Country B. Shares of the company are held by the Govt. of Country-B, Mutual funds & FII and general public in proportion of 75%, 12% and 13% respectively. During the financial year 2018-19, the company has produced and dispatched 500 million tonnes of coal. Of this 76% to power plants, 2% to steel plant and rest to other sectors. Coal is the prime source of energy and fulfills approx. 70% of energy demand of the country B. The thermal power plants, steel manufacturing plants, cement and fertilizer plants are the major consumers of coal.

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The country-B has a large reserve of coal but the quality and cost are major concern. In the last few years there has been increase in import of coal by steel and power plants. The steel plants import coal due to quality and cost advantage over domestic coal.

As per a study report conducted by the BDL, good quality of coal can be produced only through deep and underground mining. Underground mining requires highly automated technology.

Challenges before BDL

For adopting deep underground mining the BDL is required to acquire land for new mines and latest automated machines for mining. Land acquisition in country-B has been a hard task due to land acquisition related laws and protests by the local community and NGOs as BDL has acres of idle land in the form of used abandoned mines which cannot be used for agricultural activities or human rehabilitation due to the risk of landslides. BDL is a labour intensive company with low productivity. Employee cost is the major cost of BDL which accounts for 55% of total cost. BDL is second largest employer in country B.

Till recent past, the BDL was the only company which was allowed for mining and marketing of the coal in the country but with the changing economic scenario and to meet the growing energy demand the Govt. of Country-B is mulling to allot coal blocks to steel plant and thermal power plant for captive consumption.

The Govt. of the Country B is committed to boost manufacturing and industrial infrastructure of the country in next 10 years. Power and steel sector would be witnessing a multifold increase in demand not only from Govt. schemes but also from private and domestic consumers. To meet the energy demand, the Govt. has reduced the duty on imported coal. The Govt. being a signatory of Paris agreement on climate change, is committed for sustainable development by reducing carbon emission caused by usage of fossil fuels. It has entered into various technological MoUs to install clean energy sources like nuclear, solar and wind in near future. **Required :**

- (*i*) Identify and describe the five forces of Porter with respect to BDL.
- (*ii*) Identify the stakeholders in BDL. Discuss the strategy which BDL should adopt to prioritise the stakeholders.
- (iii) Explain the strategy BDL should adopt to survive and gain competitive advantage.
- (*iv*) Prepare a SWOT analysis for BDL.
- (v) If BDL wants to change itself from a labour intensive organization to a modern technology driven organization, state how BDL can manage the resistance to change from employees related unions ?

(4 marks each)

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Attempt all parts of either Q. No. 6 or Q. No. 6A

- 6. (a) 'Planning is the blue print of future course of action'. Discuss with the significance of planning.
 - (b) 'A company secretary in today's era while discharging his/her professional obligation has to perform several key roles which are also integral components of strategic management'. Discuss briefly about compliance and representation roles.
 - (c) 'Logistics strategy plan is an important part of formulation of strategy'. What are the major elements of Strategy Plan ?
 - (*d*) 'Despite various advantages, divisional structure form of organisation has certain disadvantages'. Discuss, highlighting major disadvantages.

(5 marks each)

OR (Alternate question to Q. No. 6)

- 6A. Comment on the following :
 - (*i*) Logistics is not confined to tactical decision about transportation and warehousing.
 - *(ii)* An effective implementation of strategy in an organisation needs multiple supporting factors.
 - (*iii*) Porter has pronounced three generic strategies, namely "Cost Leadership", "Differentiation", and "Focus".
 - (*iv*) Behavioural implementation is concerned with those aspects of strategy implementation which have influence on the behaviour of the people in the organisation.
 - (v) Failure of a firm is technical if it is unable to meet its current obligations.

(4 marks each)

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