Section A : Basic Concepts (30 Marks)

- **This section consists of questions with serial number 1 - 30.**
- **Answer all questions.**
- **Each question carries one mark.**
- **Maximum time for answering Section A is 30 Minutes.**

1. The expected market price per share of Soft Textiles Ltd. is ₹ 125. The company has the policy of paying 75% of its earnings as dividends. Dividend yield on equity share of Soft Textiles Ltd. is 5.77%. If Graham-Dodd Model holds good, the multiplier for the industry is

(a) 10.15
(b) 19.78
(c) 14.77
(d) 12.01
(e) 15.41.

2. Which of the following statements are **false** with respect to Adjusted Present Value approach?

I. The estimation of the adjusted present value calls for the determination of the ungeared industry beta, which in turn is based on the authenticity of the Miller and Modigliani theory.
II. It does not account for any change in the capital structure that includes the value of any additional tax shield obtained from financing existing assets.
III. It begins by calculating the value of the firm with all equity financing.
IV. It cannot be used for valuing any type of financial advantage.

(a) Both (I) and (II) above
(b) Both (II) and (III) above
(c) Both (II) and (IV) above
(d) (I), (II) and (IV) above
(e) (II), (III) and (IV) above.

3. Croma Ltd., has furnished the following information pertaining to its capital structure:

Particulars	₹ in crore
Equity capital (100 lakh equity shares of ₹ 10 each)	10
Reserves	4
10% Debentures of ₹ 100 each	3

For the year ended 2010, the company has paid equity dividend at the rate of 20%. As the company is a market leader and dividend is likely to grow by 5% every year, the equity shares are currently trading at ₹ 80 per share. If the income tax applicable to the company is 35%, the current weighted cost of capital of the company is approximately

(a) 7.43%
(b) 9.50%
(c) 10.13%
(d) 11.34%
(e) 12.87%.

4. Benatone Ltd., has provided the following information pertaining to its operations for a period:

Units produced and sold	15,000
Sale price per unit	₹ 200
Variable cost per unit	₹ 172
Total fixed cost	₹ 2,10,000

If the units (produced and sold) increase by 17%, the percentage change in EBIT will be

(a) 28%
(b) 30%
(c) 34%
(d) 36%
(e) 38%.

17·2
34

5. Any loss of value that can be attributed to a firm's deteriorating financial strength is a cost of financial distress. Which of the following costs can be considered as costs of financial distress?

I. Loss of competitiveness in a product/service market.
II. Concessions to stakeholders to compensate them for the risk of doing business with a distressed firm.
III. Loss of the value of the interest tax shield.
IV. Loss of the value of depreciation tax shield.

15·(200+172)

(a) Both (I) and (III) above
(b) Both (II) and (III) above
(c) Both (II) and (IV) above
(d) (II), (III) and (IV) above
(e) All (I), (II), (III) and (IV) above.

6. Fostering ideal work culture in an organization usually involves:

   I. Hiring people with leadership potential.
   II. Articulation of strong corporate purpose.
   III. Attempting to control employees using stringent measures.

   (a) Only (I) above
   (b) Only (II) above
   (c) Both (I) and (II) above
   (d) Both (I) and (III) above
   (e) All (I), (II) and (III) above.

7. Which of the following assumptions is **false** with respect to Baumol Model of cash management?

   (a) Cash expenses are incurred evenly over the planning period
   (b) Securities for a particular sum are converted into cash at a regular frequency
   (c) The cash requirement for the period under consideration is known in advance
   (d) Conversion cost depends upon the amount of securities converted
   (e) All cash surplus is initially parked in short-term securities.

8. Inorganic Chemicals Ltd. has a target ROE of 14%. The debt equity ratio of the company is 1.5. The corporate tax rate applicable to the company is 30%. If the average cost of debt is 9.5%, the ROI the company should earn to achieve the target ROE is

   (a) 17.53%
   (b) 13.70%
   (c) 19.35%
   (d) 20.20%
   (e) 24.22%.

9. Sema Industries is going for an IPO and making one of its divisions as an independent operating firm. This is referred as

   (a) Spin-off
   (b) Split-off
   (c) Split-up
   (d) Carve-out
   (e) Divestiture.

10. Which of the following is an internal factor leading to the bankruptcy of firm?

    (a) Scarcity of raw material
    (b) Technological obsolescence
    (c) Prolonged power cuts
    (d) Cost overruns
    (e) Inadequate funds.

11. Which of the following models takes into consideration numerical assessment of the firm's weaknesses that are classified as defects, mistakes and symptoms?

    (a) Beaver Model
    (b) The Wilcox Model
    (c) Blum Marc's Failing Company Model
    (d) Altman's Z score Model
    (e) Argenti Score Board.

12. According to the Alcar Model for maximizing shareholders value, all of the following are 'value driver' that affect the value of a firm **except**

(a) Operating profit margin
(b) Income tax rate
(c) Cost of capital
(d) Growth rate of sales
(e) Book value of the firm.

13. Utilization of derivatives like forwards, swaps, futures and insurance for hedging the risk is an example of

(a) Risk avoidance
(b) Loss control
(c) Risk transfer
(d) Risk sharing
(e) Risk separation.

14. Heavy Constructions is considering following five projects:

(₹ in lakh)

Project	Initial investment	NPV
1	1,200	210
2	6,200	1,560
3	5,200	850
4	2,700	500
5	700	95

The project that will be ranked third as per Profitability Index Method is

(a) Project 1
(b) Project 2
(c) Project 3
(d) Project 4
(e) Project 5.

15. Ezone Ltd., is engaged in manufacturing electronic instruments. The financials of the company are as follows:

Particulars	(₹ in lakh)
Currents assets	285.50
Fixed assets	450.00

If there is an increase of 25% in current assets, the working capital leverage of the company will be

(a) 0.39
(b) 0.35
(c) 0.30
(d) 0.25
(e) 0.20.

16. Which of the following statements are **false** with respect to bonus issues of shares?

I. Bonus issues result in increase in the number of shares.

II. From the accounting point of view, both paid-up equity capital and reserves of the company decrease.

III. Bonus issue involves capitalization of reserves by issuing new shares to existing shareholders.

IV. Bonus issues have huge implications on the controlling interests.

(a) Both (I) and (III) above
(b) Both (I) and (IV) above
(c) Both (II) and (III) above
(d) Both (II) and (IV) above
(e) (II), (III) and (IV) above.

17. Which of the following statements are **false** with respect to agency costs?

T I. These costs arise due to conflict of interest between shareholders and managers.

II. These costs arise due to conflict of interest between debt holders and managers.

III. These costs do not affect the efficiency of the firm.

F IV. The use of debt does not have any impact on agency costs.

(a) Both (I) and (II) above
(b) Both (I) and (IV) above
(c) Both (II) and (III) above
(d) Both (III) and (IV) above
(e) (II), (III) and (IV) above.

18. In an organization, management can be constrained from taking sub-optimal decisions by using which of the following internal structures?

I. The management's compensation being linked to company's performance.

II. Corporate governance mechanisms that specify responsibilities and holds managers accountable for their decisions.

III. Resource allocation among projects guided by specific requirements of the projects rather than past allocations and capital rationing.

IV. Plans being made in accordance with long-term goals and target performance being fixed in accordance with level of achievable targets determining the plans.

(a) Both (I) and (III) above
(b) Both (I) and (IV) above
(c) Both (II) and (III) above
(d) (I), (II) and (III) above
(e) (II), (III) and (IV) above.

19. Which of the following steps are involved in strategic planning process?

I. Business review and assessment.

II. Establishment of objectives.

III. Choice of strategies and their evaluation.

IV. Establishment of annual and other short-term budgets.

(a) Both (I) and (II) above
(b) Both (I) and (III) above
(c) Both (II) and (III) above
(d) (I), (II) and (III) above
(e) All (I), (II), (III) and (IV) above.

20. Consider the following information pertaining to Neeta Ltd.,:

Inventories	₹ 6.0 lakh
Sundry debtors	₹ 5.0 lakh
Cash and Bank balances	₹ 13.0 lakh
Short-term bank borrowings	₹ 2.0 lakh
Spontaneous liabilities	₹ 3.2 lakh

The quick ratio for the Neeta Ltd., is

(a) 4.45
(b) 3.46
(c) 2.14
(d) 1.56
(e) 1.22.

21. Which of the following statements are **true** with respect Du-Pont equation/analysis for Return On Equity (ROE)?

I. An increase in the net profit margin will increase the ROE.
II. A decrease in debt to assets ratio will increase the ROE.
III. A decrease in return on assets will decrease the ROE.
IV. An increase in the average asset turnover will increase the ROE.

(a) Both (I) and (III) above
(b) Both (I) and (IV) above
(c) Both (II) and (III) above
(d) (I), (II) and (III) above
(e) (I), (III) and (IV) above.

22. In the context of dividend policy of a firm, which of the following theories propounds that the firms finance the equity portion of viable projects with profits before paying any dividends?

(a) Expectations theory
(b) Residual dividend theory
(c) Modigliani and Miller hypothesis
(d) Dividend preference theory
(e) Walter model.

23. Which of the following statements are **true** with respect to Certainty Equivalent Approach of valuation?

I. Each period's cash flow can be adjusted separately to account for the specific risk of cash flows.
II. The approach provides a clear basis for making decisions.
III. The certainty equivalent ranges from -1 to 1.
IV. The firm's cost of capital is used as a discount rate for the estimation of the net present value.

(a) Both (I) and (II) above
(b) Both (I) and (IV) above
(c) Both (II) and (III) above
(d) (I), (II) and (III) above
(e) (I), (III) and (IV) above.

24. It is observed that if Sensex goes up by 1%, the return on Prasana Ltd. goes up by 0.8% and vice versa. It is also observed that 364 day treasury bills are issued at a discount of 6.5% to face value and investor expects 8% more return for investing in the stocks of the Sensex. The expected value per share of Prasana Ltd. after a year is ₹ 35. According to risk adjusted discount rate method, the company's present value of share, assuming no payment of dividend is

(a) ₹ 30.86
(b) ₹ 27.75
(c) ₹ 25.80
(d) ₹ 22.25
(e) ₹ 20.57.

25. According to which of the following costing methods, the cost of a product is determined on the basis of a sales price necessary to capture a predetermined market share?

(a) Activity based costing
(b) Quality costing
(c) Life cycle costing
(d) Target costing
(e) Value chain analysis.

26. Micro Ltd., a real estate company, enters into automobile business in order to reduce the overall risk of the firm. The approach adopted by Micro Ltd. to manage risk is

(a) Loss control
(b) Combination
(c) Separation
(d) Risk transfer
(e) Risk sharing.

27. Successful technology management is all about bringing a new concept to the market in the most efficient way. To commercialize an idea successfully, a number of different stages must be completed. Which of the following stages of managing innovations includes building prototypes and getting feedback from potential investors and customers?

(a) Imagining
(b) Incubating
(c) Promoting
(d) Sustaining
(e) Demonstrating.

28. Consider the following information pertaining to Astro Industries for the financial year 2010-11:

Particular	In ₹
Equity	70,00,000
Debt	30,00,000
Net income available to equity holders	32,45,150
Extraordinary gain	5,00,050
Securities gain	7,25,625
Preferred stock dividend	4,56,250
Cost of equity (%)	17
Cost of debt (%)	11
Tax rate (%)	40

The Economic Value Added to the firm is

(a) ₹ 31,22,075
(b) ₹ 26,26,575
(c) ₹ 18,57,150
(d) ₹ 10,87,725
(e) ₹ 1,42,225.

29. Which of the following statements is/are **not true** with respect to various kinds of options?

I. Investment timing option allows the firm to delay the project until at a later point of time when more information is available.
II. Growth options allow the firm to alter operations depending on how the conditions change during the life of the project.
III. Abandonment options give the firms an option to abandon a project if not profitable.
IV. Flexibility options allow a company to increase its capacity of operation if the market conditions are better than expected.

(a) Only (I) above
(b) Both (I) and (III) above
(c) Both (II) and (III) above
(d) Both (II) and (IV) above
(e) (I), (II) and (IV) above.

30. All of the following statements are **true** with respect to Dutch Auction Tender Offer for share repurchases **except**

(a) The firm does not fix any predetermined price
(b) The firm may indicate a price band, consisting of floor price and a ceiling price, for the tender offer
(c) The tender offer is open for all the shareholders of the firm
(d) It is a financial hybrid combining some features of open market and fixed price tender offer
(e) It is more risky to the management than fixed price premium offers.

END OF SECTION A

Section B : Problems/Caselet (50 Marks)

- **This section consists of questions with serial number 1 – 5.**
- **Answer all questions.**
- **Marks are indicated against each question.**
- **Detailed workings/explanations should form part of your answer.**
- **Do not spend more than 110 - 120 minutes on Section B.**

1. Lema Ltd. has a capital of ₹ 10 crore in equity shares of ₹ 100 each. The shares are currently quoted at par. The company proposes to declare a dividend of ₹5 per share. The capitalization rate for the risk class to which the company belongs is 12%.

You are **required** to answer the following questions:

a. According to MM Dividend Model, what will be the market price of the share at the end of the year, if (i) no dividend is declared? and (ii) if dividend is declared? **(2 marks)**

b. Assuming that the company has net profit of ₹ 2 crore and makes new investments of ₹ 6 crore during the period, using MM Dividend Model, how many new shares the company will issue in the case (i) dividend is paid? and (ii) dividend is not paid? Also verify the MM Dividend Irrelevancy Theory. **(10marks)**

2. a. The following data is related to Dataone Ltd.:

(₹ in lakh)

Average stock of raw materials and stores	40.00
Average work-in-progress inventory	48.00
Average finished goods inventory	28.00
Average accounts receivable	26.00
Average accounts payable	16.00
Average WIP value of raw-material consumed per day	6.00
Average cost of goods sold per day	3.00
Average sales per day	4.00
Average credit purchases per day	1.10

Sales price per unit of its product is ₹ 3,500 and processing cost per unit is ₹ 600. The firm's average daily production is 200 units. The minimum cash balance to be maintained by the firm is ₹ 2.50 lakh.

You are **required** to calculate the weighted operating cycle of the firm. **(7 marks)**

b. Digital Industries Ltd. expects some degree of certainty to generate following net income and the following capital expenditure during the next 5 years:

Year	Net Income (NI) (₹ lakh)	Capital Expenditure (CE) (₹ lakh)
1	80	32
2	70	28
3	28	35
4	23	43
5	18	53

The company currently has 24 lakh shares of equity and pays dividend of ₹ 4 per share.

You are **required** to calculate:

i. Dividends per share if the dividend policy is treated as residual decision.

ii. Amount of external financing that will be necessary if the present dividend per share is maintained.

iii. Amount of external financing that will be necessary if the dividend pay out ratio of 45% is maintained. **(3 marks)**

3. a. Chrometech Ltd., is a renowned biotech firm which produces various antiserums for blood group testing. The following information is available about Chrometech Ltd.:

EBIT	₹ 88.00 lakh
Interest on debentures @ 8.7%	₹ 1.30 lakh
Interest on term loans @ 12.2%	₹ 2.00 lakh
Income tax @ 45%	₹ 36.76 lakh
Number of equity shares	16 lakh @ ₹ 10 per share
Market price per share	₹ 55

The company has undistributed reserves and surplus of ₹ 50 lakh. It is in need of ₹ 170 lakh to pay the debentures and for modernization of plant. The company is considering the following two plans:

Plan I. Raising the entire amount as term loans @ 13% per annum.

Plan II. Issuing 4 lakh shares at ₹15 per share and rest of the amount in the form of term loan @ 13% per annum.

As a result of modernization, the return on capital is likely to improve by 4%. In case the total amount is raised in the form of term loans, the P/E ratio of the company is likely to decrease by 6%.

You are **required** to advise the company on the financial plans to be selected. **(7 marks)**

b. The following information is given about Jain Publishers Ltd.

Proportion of debt (%)	Cost of debt (after tax) (%)	Cost of equity (%)
0	0	18.0
10	8.0	17.5
20	8.5	17.0
30	9.0	16.5
40	9.5	16.0
50	10.0	15.5
60	10.5	15.0

You are **required** to calculate the optimal capital structure of Jain Publishrs. **(3 marks)**

Caselet

Answer the following questions based on the given Caselet:

4. As per the caselet, real options approach allows people to make optimal decisions within their current context. In this context, discuss various types of real options. **(9 marks)**

5. Real options are beneficial in various capital budgeting decisions as described in the caselet but there exist some hazards in their usage. In the light of this, discuss the drawbacks of using real option analysis. **(9 marks)**

Whether people realize it or not, 'freedom to choose' is the underlying principle behind many of the agile practices. This principle is called Real Options. An understanding of Real Options allows us to develop and refine new agile practices and take agile into directions it hasn't gone before. Real Options also helps to understand why some people resist some of the practices.

Real Options is an approach that allows people to make optimal decisions within their current context. This may sound difficult, but in essence it is a different view on how we deal with making decisions. There are two aspects to Real Options, the mathematics and the psychology. The mathematics of Real Options, which is based on Financial Option Theory, provides an optimal decision process. The psychology of uncertainty and decision making tells why people do not follow this optimal decision process and make irrational decisions as a result.

Real options are used in situations where management has flexibility in large capital budget decisions with high uncertainty. Some examples include research and development projects, mergers and acquisitions, technology development, facility expansion, e-business project prioritization, enterprise wide risk management, business unit budgeting, licensing, contract valuation, and intangible asset valuation.

Microsoft's relationship with Real Options is well known, like the famous trade show where the Microsoft stand looked like a bazaar. While other companies were betting their company on a single product or strategy, Microsoft was hedging its position so that it could still win the office automation battle even if it lost on the operating system front. Microsoft is the ultimate master of the wait, and wait, and wait, and watch strategy. Consider the Internet Explorer episode where Microsoft waited until the internet had emerged as a technology before moving in.

Most utility companies shudder when they consider the price volatility, lack of storage, and transmission constraints in the electricity market. Enron sees the opportunity and management uses real options as a key analytical guide in its turbulent markets. In fact, real option's thinking is the only way to fully appreciate. When electricity prices briefly surged from $40 to an unprecedented $7,000 per megawatt hour in parts of the Midwest, although the magnitude of this jump was unusual, a combination of capital intensity, transmission constraints, a lack of storage capability, deregulation, and always uncertain weather has led to a secular increase in electricity price volatility. Enron realized that its diverse skills and meaningful resources made it uniquely positioned to capitalize on this volatility and immediately began work on a peaker plant strategy. Real options showed the way. Enron is slated to open three peaker plants; gas-fired electricity generating facilities that have production costs 50-70% higher than the industry's finest. The plants, situated at strategic intersections between gas pipelines and the electric grid, are licensed to run only 1,200 hours per year but are much cheaper to build than a normal facility. In effect, they serve as the equivalent of underground storage in the gas business; they start up when electricity prices reach peak prices.

Real options analysis demonstrated that the flexibility of the peakers is more valuable than their relative inefficiency, given ENE's wholesale businesses and risk management capabilities. Supporting Enron's efforts to develop its overall energy merchant business, options offer a more robust analytical framework than more traditional tools.

END OF CASELET

END OF SECTION B

Section C : Applied Theory (20 Marks)

- **This section consists of questions with serial number 6 - 7.**
- **Answer all questions.**
- **Marks are indicated against each question.**
- **Do not spend more than 25 -30 minutes on Section C.**

6. Dividend policy of a firm reflects the views and practices of the management with regard to the distribution of its earnings to the shareholders in the form of dividends. The firms usually devise their dividend policy on the basis of some strategic determinants. Explain the various strategic determinants of dividend policy of firms. **(10marks)**

7. Product life cycle comprises of innovation of a new product and its degeneration into a common product. List the significant characteristics of product life cycle concept and explain the different phases in the life cycle of a product. **(10marks)**

END OF SECTION C

END OF QUESTION PAPER