6. Which of the following statements is correct?
   a. If the NPV of a project is greater than 0, its PI will equal 0.
   b. If the IRR of a project is 0%, its NPV, using a discount rate, k, greater than 0, will be 0
   c. If the PI of a project is less than 1, its NPV should be less than 0.
   d. If the IRR of a project is greater than the discount rate, k, its PI will be less than 1 and it NPV will be greater than 0.

7. The_____ method provides correct rankings of mutually exclusive projects, when the firm is not subject to capital rationing.
   a. Net Present Value
   b. Internal Rate of Return
   c. Payback Period
   d. Profitability Index

8. In the _____, the future value of all cash inflow at the end of time horizon at a particular rate of interest is calculated.
   a. Risk-free rate
   b. Discounting technique
   c. Compounding technique
   d. Risk Premium

9. Marketable securities are primarily,
   a. Short-term debt instruments.
   b. Long-term debt instruments.
   c. Short-term equity securities.
   d. Long-term equity securities.

10. Permanent Working Capital,
   a. varies with seasonal needs.
   b. includes fixed assets.
   c. is the amount of current assets required to meet a firm's long-term minimum needs.
   d. includes accounts payable

11. You are considering two mutually exclusive investment proposals; project **A** and project **B** **B's** expected value of net present value is $1,000 less than that for **A** and **A** has less dispersion. Based on risk and return, you would say that:
   a. Project A dominates Project B.
   b. Project B dominates Project A.
   c. Project A is riskier and should offer greater expected value.
   d. Each project is high on one variable, so the two are basically equal.

Q2.

i. Explain the concept of "operating cycle" in the context of manufacturing firms. (06 Marks)

ii. A pro forma cost sheet of a company provides the following data:

	Rs.
Costs (per unit):	
Raw materials	52.0
Direct labour	19.5
Overheads	39.0
Total cost (per unit)	**110.5**
Profit	19.5
Selling price	**130.0**

The following are the additional information available:

Average raw material in stock: one month; Average materials in process: half a month. Credit allowed by suppliers: one month; credit allowed to debtors: two months. Time lag in payment of wages: one and a half weeks. Overheads: one month. One-fourth of sales are on cash basis. Cash balance is expected to be Rs.120, 000.

You are required to prepare a statement showing the working capital needed to finance a level of activity of 70,000 units of output. You may assume that production is carried out evenly, throughout the year and wages and overheads accrue similarly. (14 Marks)

[Total 20 Marks]

Q3.

i. Distinguish between nominal rates of interest and effective rates of interest. (02 Marks)

ii. What is multi-period compounding? How does it affect the annual rate of interest? Give an example. (05 Marks)

iii. A manufacturing company has an expected usage of 50,000 units of certain products during the next year. The cost of processing an order is Rs. 20 and the carrying cost per unit is Rs. 0.50 for one year. Lead time on an order is five days and the company will keep a reserve supply of two days' usage.

You are required to calculate: (a) the economic order quantity and

(b) the reorder point (Assume 250-day year). (05 Marks)

12. If the nominal rate of interest is 10 percent per annum and the frequency of compounding is 4 i.e. quarterly compounding, the effective rate of interest will be

a. 10.25% per annum.
c. 10.38% per annum.
b. 10% per annum.
d. None of them.

13. Which of the following is least likely to be considered a short-term marketable security?

a. An original issue 30-year corporate bond with one year remaining until final maturity.
b. An original issue 30-year government bond with one year remaining until final maturity.
c. A 90-day Treasury bill.
d. Short-term corporate debt instruments with a 9-month original maturity.

14. Which of the following was not suggested by John Maynard Keynes as a reason for holding cash?

a. Speculative motive.
c. Investment motive.
b. Precautionary motive.
d. Transactions motive.

15. Which of the following represents the correct formula for valuing a share with a growing dividend?

a. $Pt = d0 \times (1 - g)/(r - g)$
c. $Pt = d0 \times (1 + g)/(r - g)$
b. $Pt = d1 \times (1 + g)/(r - g)$
d. $Pt = d0 \times (1 + g)/(r + g)$

From 16 to 20 indicate whether the following statements are "*True*" or "*False*" within the space provided.

16. For a bond, yield to maturity (YTM) is always equal to the coupon rate. ( )
17. From the perspective of determining net working capital, all current liabilities including short-term sources of finance are considered. ( )
18. For a given correlation coefficient, a minimum variance portfolio can be created, for which risk of portfolio will be less than the risk of any security in the portfolio. ( )
19. A portfolio consisting of two risky securities can be made riskless if the securities are perfectly negatively correlated. ( )
20. If coupon rate = Required rate, the value of the bond would be equal to its par value. ( )

[01Mark x 20 = 20 Marks]

iv. A firm wants to open a new coal mine. The price of coal is very volatile and the projected profits over the next five years are: Rs. 100,000, Rs.250,000, Rs. 10,000, Rs. 200,000 and Rs. 50,000 respectively. After that profits will be a constant Rs. 150,000 per year for next 20 years at which time the mine closes. If 7% is the appropriate discount rate for the first five years and is 8% after that, what is the present value of the mine?

(08 Marks)

[Total 20 Marks]

Q4.

i. Why must the finance manager keep in mind the degree of financial leverage in evaluating various financing plans? When and why does financial leverage become favourable?

(06 Marks)

ii. Calculate operating leverage and financial leverage under situations X,Y and Z and financial plans I, II and III respectively from the following information relating to the operation and capital structure of Athithya Co Ltd. Also find out the combinations of operating and financial leverage which give the highest value and the least value.

Description	
Installed capacity (units)	1,200
Actual production and sales (units)	800
Selling price per unit (Rs)	15
Variable cost per unit (Rs)	10
Fixed costs (Rs): Situation X	1,000
Situation Y	2,000
Situation Z	3,000

Capital Structure

Particulars	Financial Plan		
	I	II	III
Equity	Rs. 5,000	Rs. 7,500	Rs. 2,500
Debt	Rs. 5,000	Rs. 2,500	Rs. 7,500
Cost of debt (for all plans) (%)	12	12	12

(14 Marks)

[Total 20 Marks]

Q5.

i. Regarding the "new issue of ordinary shares", and "Retained earnings", which source of financing will less expensive? Give your views. (02 Marks)

ii. Why the required rate of return on equity is always greater than the required rate of return on debt for a given firm? (03 Marks)

iii. What does the profitability index signify? What is the criterion for judging the worth of investments in the capital budgeting technique based on the profitability index? (03 Marks)

iv. Define the cost of capital. Explain its significance in financial decision-making. (04 Marks)

v. Ultra-Finance Limited is proposing to sell a 5-year bond of Rs. 5,000 at 8% of interest per annum. The bond amount will be amortized equally over its life. What is the bond's present value for an investor if he expects a minimum rate of return of 6%? (08 Marks)

[Total 20 Marks]

Formulas:

$$FVA_{Ordinary} = P \times \frac{[(1+i)^n - 1]}{i}$$

$$FVA_{Due} = P \times \frac{[(1+i)^n - 1] \times (1+i)}{i}$$

$$P_0 = \frac{DIV_p + P_1}{1+k_e}$$

$$P_0 = \frac{DIV_1}{k_e - g}$$

$$\sigma_p = \sqrt{w_1^2 \sigma_1^2 + w_2^2 \sigma_2^2 + 2 w_1 w_2 \rho_{1,2} \sigma_1 \sigma_2}$$

$$B_0 = \sum_{t=1}^{n} \frac{INT_n}{(1+k_d)^n} + \frac{B_n}{(1+k_d)^n}$$

$$P_0 = \sum_{t=1}^{n} \frac{PDIV}{(1+k_p)} + \frac{P_n}{(1+k_p)^n}$$

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MGT 3073 Financial Management

Note:

* Calculator is allowed
* PVIF, FVIF, PVIFA, and FVIFA tables are allowed

Answer All Questions **Time Allowed: 03 Hours**

Q1. Please choose the most suitable answer in the paper itself.

1. Cost of capital is _____.
   a. Lesser than the cost of debt capital.
   b. Equal to the last dividend paid to the equity shareholders.
   c. Equal to the dividend expectations of equity shareholders for the coming year.
   d. None of the above

2. _____ is not a diversifiable or specific risk factor.
   a. Company strike
   b. Death of a key company officer
   c. Bankruptcy of a major supplier
   d. Industrial recession

3. Mr.Anil purchased 100 stocks of future informatics Ltd, for Rs.21 on March 15, sold for Rs.35 on March 14 next year. In the company paid a dividend of Rs.2.50 per share, then Anils holding period return is_____.
   a. 11.90%. b. 45.40%. c. 66.70%. d. 78.60%.

4. A(n)_____would be an example of a principal, while a(n)_____ would be an example of an agent.
   a. Shareholder; Manager
   b. Accountant; Bondholder
   c. Manager; Owner
   d. Shareholder; Bondholder

5. The term _____ refers to the period in which the project will generate the necessary cash flow to recover the initial investment.
   a. Internal return.
   b. Discounting return.
   c. Payback period.
   d. Accounting return.