

Name :

Roll No. :

Invigilator's Signature :

**CS / MMA / SEM-3 / MMAFNE-301 / 2009-10
2009**

INVESTMENT ANALYSIS

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

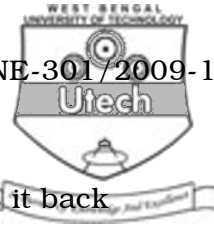
GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives of the following : $10 \times 1 = 10$
 - i) The capital budgeting technique that ignores time value of money is
 - a) IRR
 - b) NPV
 - c) AAR
 - d) PI.
 - ii) A positive NPV means that
 - a) the project can be accepted
 - b) the IRR is more than the cost of capital
 - c) the PI will be more than one
 - d) all of these.



- iii) Networking capital means
- a) current assets
 - b) current assets less current liabilities
 - c) all assets
 - d) current assets less cash.
- iv) Receivable conversion period is the time taken to
- a) convert new material into stock
 - b) convert raw material into sales
 - c) sell the finished goods
 - d) convert credit sales into cash realisation.
- v) 'Float' for a paying firm is the time gap between
- a) issuing a cheque and when the underlying funds are actually debited
 - b) receiving a cheque and depositing it in the bank
 - c) writing a cheque and mailing it
 - d) none of these.
- vi) A bond has face value of Rs. 1,000 and coupon rate of 8%. If it is redeemable after 2 years at par and discount rate is 8%, its value is
- a) Rs. 8,270
 - b) Rs. 9,360
 - c) Rs. 1,000
 - d) Rs. 1,120.



- vii) Leveraged lease is when
- a) the lessee sells the asset and leases it back
 - b) the lessee leases the asset for a short period
 - c) the lessor provides part of the cost of the asset and the balance is borrowed by the lessor
 - d) the lease is a mix of operating and financial lease.
- viii) Venture capitalists are
- a) high risk investors and expect high return
 - b) low risk investors but expect high return
 - c) risk neutral investors
 - d) none of these.
- ix) A new coupon bond
- a) pays no interest but is redeemable at a high premium
 - b) pays interest according to the market rate
 - c) is one which is redeemable at par
 - d) is also called a junk bond.
- x) The term 'structure of interest rate' shows
- a) the relationship between bond price and time
 - b) the relationship between bond price and coupon rate
 - c) the relationship between yield to maturity and time to maturity
 - d) the relationship between yields and interest rates.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 × 5 = 15

2. Explain the advantages and disadvantages of NPV.
3. Explain the objectives of credit policy of a firm.
4. Three bonds have face value of Rs. 5,000, coupon rate 12% and maturity of 5 years. One pays interest annually, one pays semi-annually and one pays interest quarterly. Calculate the price of the bonds if the required rate of return is 16%.
5. A 15 year 12% Rs. 1,000 bond that pays interest half yearly is redeemable (callable) in 10 years at a call price of Rs. 1,150. The bond's current YTM is 8%. Find (i) the yield to call (ii) the yield to call if the buy back is Rs. 1,050.
6. A machine costing Rs. 110 lakhs has a life of 10 years at the end of which its scrap value will be Rs. 10 lakhs. The machine is expected to yield an annual profit after tax of Rs. 10 lakhs. Depreciation is on straight line basis and the cost of capital is 12%. Ascertain the NPV of the machine.

**GROUP – C**

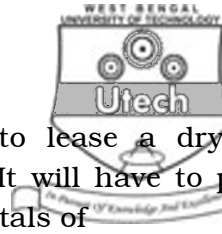
(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. Define venture capital financing. What are its features ? Explain the various stages in venture capital financing.
8. Growell Ltd. has a machine which has been in operation for 2 years and its remaining estimated useful life is 4 years with no salvage value at the end. Its current market value is Rs. 1,00,000. The management is considering a proposal to purchase an improved model to similar machine, which gives increased output. The relevant particulars are as follows :

	Existing	New
Purchase price (Rs.)	2,40,000	4,00,000
Estimated life (years)	6	4
Salvage value	Nil	Nil
Annual operating hours	2,000	2,000
Selling price per unit (Rs.)	10	10
Material cost per unit (Rs.)	2	2
Output per hour (units)	15	30
Labour cost per hour (Rs.)	20	40
Consumable stores per year (Rs.)	2,000	5,000
Repairs and maintenance per year (Rs.)	9,000	6,000
Working capital (Rs.)	25,000	40,000

The company follows the written down value method of depreciation @ 25% and is subject to 35% tax. Should the existing machine be replaced ? Assume that the company's required rate of return is 15% and the company has several assets in the 25% block.



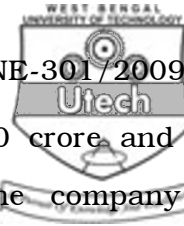
9. A cement manufacturer is considering to lease a drying equipment which is worth Rs. 75 lakhs. It will have to pay five annual beginning-of-the-year lease rentals of Rs. 20 lakhs. The tax rate is 35% and the manufacturer can write off the cost of equipment at 25% written down basis for 5 years. The manufacturer's effective borrowing rate is 16%. Should the equipment be leased ? Use the equivalent loan method.
10. A proforma cost sheet of a company provides the following particulars :

	<i>Amount per unit</i>
Raw material	80
Direct labour	30
Overheads	60
Total cost	170
Profit	30
Selling price	200

The following further particulars are available :

- Raw material in stock, on an average one month; materials in process, on an average half a month; finished goods in stock, on an average one month.
- Credit allowed by suppliers is one month; credit allowed to debtors is two months; lag in payment of wages is one and a half weeks; lag in payment of overhead expenses is one month; one-fourth of the output is sold against cash; cash in hand and at bank is expected to be Rs. 25,000.

You are required to prepare a statement showing working capital needed to finance a level of activity of 104,000 units of production. You may assume that production is carried on evenly throughout the year and wages and overheads accrue similarly.



11. X Ltd. has current annual sales of Rs. 60 crore and an average collection period of 30 days. The company is considering of liberalising its credit policy. If the collection period is extended, sales and bad debts are expected to increase in the following way :

<i>Credit policy</i>	<i>Increase in collection period</i>	<i>Increase in sales Rs. (crore)</i>	<i>Per cent bad debt losses</i>
I	15 days	4.0	1.5
II	30 days	4.5	1.7
III	45 days	5.3	2.0
IV	60 days	6.5	2.5

The firm sells its product for Rs. 10 per unit. Average cost at current level of sales is 90% for sales and variable cost is 80% of sales. If the current bad debt loss is 1.5% of sales and the required return is 18%, which credit policy should be pursued ? (Assume a 360 day year). State your assumptions.
