# UNIVERSITY OF PETROLEUM \& ENERGY STUDIES, DEHRADUN 

End Term Examination-May 2018

| Examination | $:$ End Term | Programme | $:$ BT-ET-LLB-IPR-NU |
| :--- | :--- | :--- | :--- |
| Max. Marks | $: \mathbf{1 0 0}$ | Semestre | $:$ VIII |
| Duration | $: \mathbf{3}$ hours | Course Code | : BBCF134 |
| Course Title | $:$ Project Management and Financial Management in energy sector |  |  |

SECTION A
(Marks: 2*10)

## (Answer all the following Questions)

1. Discount/Premium is computed as a $\%$ of
a. Time Value of Money
c. Redeemable value
b. Face Value
d. Both a \& b above
2. If the investment of the machinery is Rs. 50000 and it will generate Rs. 10000 each year for 10 years, Pay Back Period is
a. 5 years
c. 3 years
b. 4 years
d. 2years
3. Which of the following statements is not a correct explanation of the capital asset pricing model?
a) Beta gives a measure of the extent of market related risks which are non-diversifiable
b) When beta value is 1.0 , the investment is considered to be of normal risk
c) The expected return on an investment with a beta value of 2.0 is twice as high as the market rate of return
d) The expected return from an investment with negative beta would be less than the risk-free rate of return.
4. The excess of current assets over current liabilities is called:
(a). Net Current Assets
(b). Working Capital
(c). Net working Capital
(d). All of the above
5. The discounting rate which equates the PV on inflows with PV of outflows is knows as $\qquad$
a. Internal rate of return
b. Accounting rate of return
c. Payback period
d. Net benefit cost ratio
6. Book building is a process of
a. Maintaining the details of the shares in company records
b. Changing the face value of the shares
c. Discovering the issue price in case of a public issue
d. Maintaining the details of dividend distribution of the company
7. $\left(D_{1} / P_{0}\right)+g$ is used for $\qquad$
a. Ke
b. Kd
c.Kp
d. Ko
8. If Beta $<1$, then this is $\qquad$ .type of a Security
a. Neutral
b. Aggressive
c. Passive
d. Both a \& b above

## Complete the following with appropriate answers

9. Beta as per CAPM model- Cost of Equity Calculation is defined as $\qquad$
10. $\quad$ Future Value $=$ $\qquad$

## SECTION B

(Marks: 4*5)

## (Answer any four of the following Questions)

Write Short Notes on the following:
11. Convertible Preference shares
12. Annuity Compounding
13. Underwriting
14. ARR
15. Cash Cycle

## SECTION C

(Marks: 2*15)

## (Answer any two of the following three Questions)

16. Discuss the types of long-term capital market equity instruments available to industries in India.
17. What do you mean working capital? Discuss how working capital is estimated in a company with a suitable example?
18. XYZ Ltd for its project investments intends to raise 1200 crores from debt, preference, common equity and retained earnings with a volume of Rs 200 crores, 300 crores, 400 crores and 300 crores respectively.

The company considers the following heads of capital for its capital structure.
The company intends to raise the debt by issuing $13 \%, 8$ year redeemable debenture to be redeemed at a premium of $18 \%$ at the end of the maturity period. The face value of the debenture is Rs100 and it is intended to be issued at a discount of $20 \%$ and a flotation cost of $10 \%$ on realized value. The applicable tax rate for the interest is $28 \%$. The company decides to calculate the cost of debt without incorporating time value of money.

The company also considers issuing a 5-year Preference equity with a face value of Rs 10 at a premium of $12 \%$. The flotation cost is $8 \%$ of the face value. The preference equity is planned to be redeemed in following manner over the period of maturity.

| Year | Redemption of Face Value (Rs) |
| :---: | :---: |
| 1 | 2 |
| 2 | 3 |
| 3 | 1 |
| 4 | 1 |
| 5 | 3 |

The company also considers paying a premium of $25 \%$ to be paid at the end of the maturity period. The company decides to incorporate time value of money for the estimation of cost of preference equity. The expected tax rate is $30 \%$ for this scenario.

For the equity issue the bankers have advised that the company would have to offer a discount of $20 \%$ on the current market price of Rs 400 per share. The face value of the share is Rs 100 . The company can go ahead with plan of dividend of Rs 15 in the very first year. The flotation cost would be $12 \%$ of the issue proceeds.

The simulated past information regarding the dividend of an equal size organization is as follows:

| Year | Dividend |
| :---: | :---: |
| 1 | 16 |
| 2 | 6 |
| 3 | 8 |
| 4 | 10 |
| 5 | 4 |

A. Suggest the Weighted Average cost of Capital for the firm
B. Suggest whether the company should accept the proposal of the merchant bankers if the expected market return on the project is $24 \%$.

## (Answer the following Question)

19. A company decides to purchase a mechanical set up to augment the company's installed capacity to meet the growing demand for its products. There are two machines under consideration of the management. The relevant details including estimated yearly expenditure and sales are given below: All Sales are on cash. Corporate income tax rate is $30 \%$. Interest on Capital may be assumed to be $20 \%$. The proposed debt equity ratio for the investment is $4: 6$. The anticipated revenue and expenditure for the setup is as follows:

| Particulars | Machine 1 | Machine 2 |
| :---: | :---: | :---: |
| Initial Investment Required | $30,00,000$ | $30,00,000$ |
| Estimated Annual Sales | $5,00,000$ | $4,00,000$ |
| Cost of Production(Estimated): |  |  |
| Direct Materials | $2,00,000$ | $2,50,000$ |
| Direct Labor | $5,00,000$ | $3,50,000$ |
| Factory overheads | 600,000 | $5,60,000$ |
| Administration costs | $3,00,000$ | $4,00,000$ |
| Selling and Distribution Costs | $1,00,000$ | 50,000 |

The economics life of Machine 1 is 4 years, while it is 6 years for the other. The scrap values are Rs.2,00, 000 , and Rs.3,00, 000 respectively. The depreciation is to be charged at a rate of $20 \%$ by written down value method. The sales and direct expenses are expected to increase by $15 \%$ and all indirect expenses are expected to increase by $20 \%$ Year on Year. The applicable tax rate is $30 \%$. Suggest the most profitable investment based on various project appraisal techniques of Pay Back Period, Discounted Payback period, ARR, IRR and NPV.

