



Dr. B.B. HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Internal Assesment Examination : May, 2024

Roll No.

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
Class & Section : III BCOM 'D'

Course : Advanced Financial Management Date of Exam: 27/05/2024

INSTRUCTIONS TO CANDIDATES

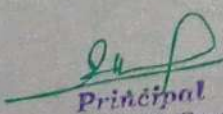
1. Write your Roll No. only in the space provided for the purpose and nowhere else.
2. Write your answer on both sides of the paper by using blue or black ink only.
3. Do not leave any pages unused except at the end of all the answers.
4. Write the correct question number on the left hand margin at the beginning of each answer.
5. Handover your answer book personally to the Room Invigilator before leaving the Examination Hall.

Date : 27/5/24

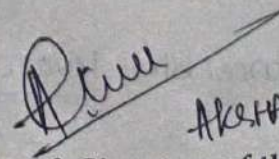
Dr. Deepu 
Name & Initial of the Invigilator

Marks Obtained

40.


Principal
Dr. B.B. Hegde First Grade College
Kundapura -576201

Date: 30/05/2024


Name & Signature of the Valuer
AKSHAY

Section-A

1) Risk is expressed differently by different people.

Risk is a condition in which there is a possibility of an adverse reaction from outcome that is expected or hoped so for.

2) Assumption of Net Income Approach

* It is a relevance model, that changes in debt & equity structure can effect ~~the~~ value of the firm & cost of capital.

* If debt ~~(or)~~ portion is increased, the value of the firm is also increase & overall cost ~~of~~ capital is decreased.

✓ If debt portion is decreased, the value of the firm decreases & the overall cost of capital increases.

3) standard deviation indicates risk factor associated with the particular project ~~(to be)~~ in which the company wants to invest.

It is calculated by ~~(that)~~ making square root of variance i.e. $\sqrt{\text{variance}}$

4) Difference b/w leveraged & unleveraged capital structure

↳ leverage capital structure means capital structure which includes both debt & equity combination.

unlevered capital structure means capital structure with no debt funds.

↳ levered capital structure can gain tax benefits

whereas unlevered structure cannot gain tax benefits as they don't have debt funds.

5) calculation of expected NPV

| NPV | probability | Expected NPV |
|----------------|-------------|--------------|
| 8000 | 0.3 | 2400 |
| 12000 | 0.3 | 3600 |
| 14250 | 0.2 | 2850 |
| 20000 | 0.2 | 4000 |
| Expected NPV → | | 12850 |

6) calculation of value of equity & Market value of the firm

| PK | Amt |
|-----------------------------|----------|
| Net operating Income / EBIT | 200,000 |
| ↳ Interest (10,00,000 × 6%) | 60,000 |
| NI | 1,40,000 |

| | |
|--|-----------|
| overall capitalisation rate | 10% |
| Value of the firm (V) = $\frac{EBIT}{k_0}$ | |
| = $\frac{2000000}{0.10}$ | 20,00,000 |
| Market value of equity (S) = V - D | |
| = 20,00,000 - 10,00,000 | 10,00,000 |
| cost of equity (k _e) = $\frac{EBIT - Int}{V - D} \times 100$ | |
| = $\frac{1,40,000}{10,00,000} \times 100$ | 14% |

section-B

9)

(Contd)
Working notes

| PIR | No-debt | 40%-debt | 50%-Debt |
|---|---------|-----------|-----------|
| Fund requirement (30,00,000) | | | |
| Debt fund (30,00,000 × 40%) (30,00,000 × 60%) | - | 12,00,000 | 18,00,000 |
| Interest rate (k _d) | - | 12% | 14% |
| Eq capitalisation rate (k _e) | 5% | 16% | 18% |

calculation of value of the firm & overall cost of capital

| PIR | I - No Debt | II - 40% Debt | III - 60% Debt |
|--|---|--|--|
| Net operating Income | 500,000 | 500,000 | 500,000 |
| (-) Interest (1,800,000 × 12%) (1,800,000 × 14%) | - | 144,000 | 2,52,000 |
| NI | 500,000 | 3,56,000 | 2,48,000 |
| eq capitalisation rate | 5% | 16% | 18% |
| Market value of eq $S = \frac{NI}{k_e}$ | $\frac{500,000}{0.05}$ | $\frac{3,56,000}{0.16}$ | $\frac{2,48,000}{0.18}$ |
| | 10,000,000 | 22,25,000 | 13,77,778 |
| (+) Market value of Debt | - | 1,800,000 | 1,800,000 |
| Value of the firm → | 10,000,000 | 34,25,000 | 31,77,778 |
| overall cost of capital $k_o = \frac{EBIT}{V} \times 100$ | $\frac{500,000}{10,000,000} \times 100$ | $\frac{500,000}{34,25,000} \times 100$ | $\frac{500,000}{31,77,778} \times 100$ |
| | 5% | 14.60% | 15.73% |

5 ✓

calculation of Expected net present value

calculation of Expected value

| project x | | | project z | | |
|-----------|------|----------|-----------|------|----------|
| CF(x) | P | Px | CF(x) | P | Px |
| 8,50,000 | 0.2 | 1,70,000 | 6,00,000 | 0.2 | 1,20,000 |
| 4,00,000 | 0.5 | 2,00,000 | 5,00,000 | 0.5 | 2,50,000 |
| 1,00,000 | 0.3 | 30,000 | 1,00,000 | 0.3 | 30,000 |
| | EV → | 4,00,000 | | EV → | 4,00,000 |

calculation of Expected NPV

| PIR | project x | project z |
|--|------------------|------------------|
| Expected value | 4,00,000 | 4,00,000 |
| p.v factor | 4.100 | 4.100 |
| GPV = EV x P.V.F = 4,00,000 x 4.100 | 16,40,000 | 16,40,000 |
| (-) Initial cash outlay | 6,00,000 | 5,00,000 |
| Expected NPV → | <u>11,40,000</u> | <u>11,40,000</u> |

section - c

ii) a) calculation of Expected NPV

project A summarise

| NPV(x) | P | PxNPV | x-EV | (x-EV) ² | (x-EV) ² xP |
|---------|--------|--------|---------|---------------------|------------------------|
| 30,000 | 0.10 | 3,000 | -60,000 | 3,600,000,000 | 360,000,000 |
| 60,000 | 0.40 | 24,000 | -30,000 | 900,000,000 | 360,000,000 |
| 120,000 | 0.40 | 48,000 | 30,000 | 900,000,000 | 360,000,000 |
| 150,000 | 0.10 | 15,000 | 60,000 | 3,600,000,000 | 360,000,000 |
| | ENPV → | 90,000 | | | 1,440,000,000 |

project & skyline

| x | P | Px | x-EV | (x-EV) ² | (x-EV) ² xP |
|---------|------|--------|---------|---------------------|------------------------|
| 30,000 | 0.20 | 6,000 | -60,000 | 3,600,000,000 | 720,000,000 |
| 60,000 | 0.30 | 18,000 | -30,000 | 900,000,000 | 270,000,000 |
| 120,000 | 0.30 | 36,000 | 30,000 | 900,000,000 | 270,000,000 |
| 150,000 | 0.20 | 30,000 | 60,000 | 3,600,000,000 | 720,000,000 |
| | | 90,000 | | | 1,980,000,000 |

b) standard deviation

project sunrise

$$\begin{aligned}
 SD &= \sqrt{\text{Variance}} \\
 &= \sqrt{1,440,000,000} \\
 &= \underline{\underline{37,947.33}}
 \end{aligned}$$

project skyline

$$\begin{aligned}
 SD &= \sqrt{\text{variance}} \\
 &= \sqrt{1,980,000,000} \\
 &= \underline{\underline{44,497.19}}
 \end{aligned}$$

c) co-efficient of variation

project A sunrise

$$C.V = \frac{\sigma}{EV} \times 100$$

$$= \frac{37,947.33}{90,000} \times 100$$

$$= \underline{42.16\%}$$

~~proj~~ project - B skyline

$$C.V = \frac{\sigma}{EV} \times 100$$

$$= \frac{44,497.19}{90,000} \times 100$$

$$= \underline{49.44\%}$$

comment :-

project sunrise is preferable because its cv is lesser than project skyline.

section-B

7) Types of Risk in capital Budgeting

capital Budgeting means investment decision in a long term asset or project. There are several risks which effect the cash flows, so the business should manage and analyze the risk factor.

some major risks are as follows.

• project specific risk :-

The variability in the cash flows due to factor specific to that project only is known as project specific risk.



2) competition risks :-

The variability in the cash flows due to the action of competitors is called as competition risk.

3) Market risk :

Market risk occurs due to certain market conditions such as economic downturns, interest rate fluctuations, changes in exchange rates etc which affect the cash flow of the project.

4) Financial risk :-

Financial risk mainly arises due to inadequate cashflow in the organisation to meet the obligation.

It is mainly because of changes in interest rates, inflation credit market etc.

5) operational risk :-

It arises due to failure of policies & control of the business. ^{some of} operational risks ^{are} such as production issue, issue of supply chain management, logistics etc.

6) International risk :

These type of risk involves changes in foreign currency rates, foreign etc rates etc.