**NEW SYLLABUS**

# 335

*Roll No.…………………*

*Time allowed : 3 hours* *Maximum marks : 100*

*Total number of questions : 6* *Total number of printed pages : 8*

***NOTE*** *: 1. Answer **ALL** Questions.*

*2. Tables showing the present value of ₹1 and the present value of an annuity of ₹1 for 15 years are annexed.*

**1.** Comment on the following :

(a) The functions of treasury management are concerned with both micro and macro facets of the economy.

(b) There are a number of statistical/mathematical techniques of risk evaluation in capital budgeting.

(c) Venture capitalists prefer to invest in 'entrepreneurial business'.

(d) EBIT–EPS analysis is an effective method in analysing the effect of leverage.

*(5 marks each)*

***Attempt all parts of either Q.No. 2 or Q.No. 2A***

**2.** (a) "The balance sheet fails to depict an exact picture of the current assets." Elucidate.

*(4 marks)*

(b) Distinguish between 'operating lease' and 'finance lease'.

*(4 marks)*

(c) Distinguish between 'capital budgeting' and 'capital rationing'.

*(4 marks)*

(d) Distinguish between 'capital market line (CML)' and 'security market line (SML)'.

*(4 marks)*

***OR (Alternate question to Q.No. 2)***

**2A.** (i) 'Vertical capital structure' and 'pyramid shaped capital structure' exhibit opposite dimensions in analysing its utility. Discuss.

*(4 marks)*

(ii) Distinguish between 'net income' and 'net operating income' approaches to cost of capital.

*(4 marks)*

(iii) In real life, the component costs of debt and equity are jointly operational rather than independently determined. Elucidate.

*(4 marks)*

(iv) State the objectives of treasury management.

*(4 marks)*

***Attempt all parts of either Q.No. 3 or Q.No. 3A***

**3.** (a) The turnover of Sparkle Ltd. is ₹100 lakh of which 72% is on credit. Debtors are allowed one month's credit to clear the dues. A factoring company is willing to advance 80% of the bills raised on credit for a fee of 1% per month *plus* a commission of 5% on the total amount of debts. Sparkle Ltd. as a result of the arrangement is likely to save ₹48,000 annually in management costs and avoid bad debts by 1% on the credit sales.

A bank has also approached the company to make an advance equal to 80% of the debts at an annual interest of 15%. However, the processing fee will be 1% of the debts.

Would you accept factoring proposal or the offer from the bank ?

*(4 marks)*

(b) Sales and earnings before interest and taxes (EBIT) for Ramswaroop Co. Ltd. during 2013 were ₹17,50,000 and ₹4,50,000 respectively. During 2013, interest expenses were ₹4,000 and preference dividends were ₹10,000. These fixed charges are expected to continue during 2014. An expansion is planned which will require ₹1,75,000 and is expected to increase EBIT by ₹1,00,000 to ₹5,50,000.

The company is considering the following financing alternatives :

Alt.–1 Issue 5,000 shares of common stock to net the firm ₹35 per share. The firm currently has 40,000 shares of common stock outstanding.

Alt.–2 Issue ₹1,75,000 of fifteen year bonds at 8%. Sinking fund payments on these bonds commence in 2013.

Alt.–3 Issue ₹1,75,000 of 8.5% preferred stock.

Assume a 50% tax rate.

You are required to —

(i) Calculate the EPS for 2014 at the expected earnings before interest and taxes level of ₹5,50,000 for each financing alternative.

(ii) Calculate the equivalency level of earnings before interest and taxes between the debt and common stock alternatives.

(iii) Calculate the equivalency level of earnings before interest and taxes between the preferred stock and the common stock alternatives.

*(8 marks)*

(c) Following is the data regarding two companies, Company-A and Company-B, belonging to the same risk class :

| | *Company-A* | *Company-B* |
|---|---|---|
| Number of equity shares | 1,00,000 | 2,00,000 |
| Market price per share *(₹)* | 15 | 7 |
| 10% Debentures *(₹)* | 2,00,000 | — |
| Profit before interest *(₹)* | 1,20,000 | 1,20,000 |

Dividend payout ratio is 100%. Explain how under Modigliani & Miller approach, Ramesh, an investor, holding 10% of shares in Company-A will be better off in switching his holding to Company-B.

*(4 marks)*

***OR (Alternate question to Q.No. 3)***

**3A.** (i) Distance Sensor Ltd. is an all equity financed company with a market value of ₹35,00,000 and cost of equity, $K_e$=20%. The company wants to buy-back equity shares worth ₹8,00,000 by issuing and raising 10% perpetual debt of the same amount. Rate of tax may be taken at 35%. Applying the MM Model (with taxes), how would the capital restructuring affect —

(a) Market value of Distance Sensor Ltd.

(b) Cost of equity $(K_e)$

(c) Weighted average cost of capital (WACC) of the company.

*(4 marks)*

(ii) Zebra Ltd. has a beta (β) of 1.15. The return on market portfolio is 14%. What would be the expected rate of return on the shares of Zebra Ltd., if the risk-free rate of return is 5% ? What are the implications ? Also compute the alpha, if the actual rate of return over 4 observations are as under :

| | *Year 1* | *Year 2* | *Year 3* | *Year 4* |
|---|---|---|---|---|
| Return on Zebra (%) | 18.83 | 12.65 | 15.35 | 16.57 |

*(4 marks)*

(iii) Gem Ltd. is engaged in the production of synthetic yarn and is planning to expand its production. In this context, the company is planning to import a multi-purpose machine from Osaka in Japan at a cost of ¥2,400 lakh. The company is in a position to borrow funds to finance import at 12% interest per annum with quarterly rests. India-based Osaka branch has also offered to extend credit of 90-days at 2% per annum against opening of an irrevocable letter of credit. Other information are as under :

| | | |
|---|---|---|
| Present exchange rate | : | ₹100 = ¥246 |
| 90-day forward rate | : | ₹100 = ¥250 |

Commission charges for letter of credit is 4% per 12 months.

Advise, whether the offer from the foreign branch should be accepted.

*(4 marks)*

(iv) Krishna Ltd. is currently financed with ₹10,00,000, 7% bonds and ₹20,00,000 of common stock. The stock has a beta of 1.5, risk-free rate of return 4% and market risk premium 3.5%. The marginal tax rate for a company of this size is 35%.

Compute the WACC of Krishna Ltd. ?

*(4 marks)*

**4.** (a) Simplex Co. Ltd. is considering an expansion programme which is expected to cost ₹10,00,000. The company can finance either through debt or equity. Its current financing plan is given as under :

| *Particulars* | ₹ |
|---|---|
| Equity capital (50,000 shares @ ₹10 each) | 5,00,000 |
| Reserves and surplus | 2,00,000 |
| Debt (10%) | 3,00,000 |
| Total | 10,00,000 |

The latest income statement reveals the following information :

| *Particulars* | ₹ |
|---|---|
| Sales | 64,00,000 |
| *Less* : total costs | 59,00,000 |
| EBIT | 5,00,000 |
| *Less* : interest | 30,000 |
| EBT | 4,70,000 |
| *Less* : income-tax @ 50% | 2,35,000 |
| EAT | 2,35,000 |

The expansion programme is expected to generate additional sales of ₹16,00,000 with a return of 15% on sales before interest and taxes. If the expansion is financed through debt, the rate of new debt will be 12% and the price-earnings ratio will be 4 times. If the expansion programme is financed through equity shares, *i.e.*, the new shares can be sold at a price of ₹40 and the price-earnings ratio will be 5 times.

Which form of financing should the company choose, if the objective of financial management in the company is maximisation of shareholders' wealth ?

*(8 marks)*

**335**



(b) Using capital employed, compute the economic value added (EVA) with the help of following information :

| | *2011-12* (₹) | *2012-13* (₹) | *2013-14* (₹) |
|---|---|---|---|
| Equity | 10,00,000 | 15,00,000 | 17,00,000 |
| Debt (10%) | 5,00,000 | 7,00,000 | 7,00,000 |
| Profit after tax | 2,00,000 | 4,00,000 | 8,00,000 |

Risk-free rate of return is 7%. Beta (β) = 0.9, market rate of return = 15%. Applicable tax rate is 40%.

*(8 marks)*

**5.** (a) Examine the role of merchant banking organisations.

*(4 marks)*

(b) What are the determinants of working capital ?

*(4 marks)*

(c) Project appraisal under inflationary condition necessitates adherence to specified guidelines which must be resorted to. State these guidelines.

*(4 marks)*

(d) Examine the basic characteristics and participants in the derivatives market.

*(4 marks)*

**6.** Write notes on the following :

(a) Credit derivatives

(b) Limitations of credit rating

(c) Operating lease

(d) Commodities market.

*(4 marks each)*

————0————

*TABLE - 1* : **PRESENT VALUE OF RUPEE ONE**

| RATE | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 | YEAR 7 | YEAR 8 | YEAR 9 | YEAR 10 | YEAR 11 | YEAR 12 | YEAR 13 | YEAR 14 | YEAR 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | 0.9524 | 0.9070 | 0.8638 | 0.8227 | 0.7835 | 0.7462 | 0.7107 | 0.6768 | 0.6446 | 0.6139 | 0.5847 | 0.5568 | 0.5303 | 0.5051 | 0.4810 |
| 6% | 0.9434 | 0.8900 | 0.8396 | 0.7921 | 0.7473 | 0.7050 | 0.6651 | 0.6274 | 0.5919 | 0.5584 | 0.5268 | 0.4970 | 0.4688 | 0.4423 | 0.4173 |
| 7% | 0.9346 | 0.8734 | 0.8163 | 0.7629 | 0.7130 | 0.6663 | 0.6227 | 0.5820 | 0.5439 | 0.5083 | 0.4751 | 0.4440 | 0.4150 | 0.3878 | 0.3624 |
| 8% | 0.9259 | 0.8573 | 0.7938 | 0.7350 | 0.6806 | 0.6302 | 0.5835 | 0.5403 | 0.5002 | 0.4632 | 0.4289 | 0.3971 | 0.3677 | 0.3405 | 0.3152 |
| 9% | 0.9174 | 0.8417 | 0.7722 | 0.7084 | 0.6499 | 0.5963 | 0.5470 | 0.5019 | 0.4604 | 0.4224 | 0.3875 | 0.3555 | 0.3262 | 0.2992 | 0.2745 |
| 10% | 0.9091 | 0.8264 | 0.7513 | 0.6830 | 0.6209 | 0.5645 | 0.5132 | 0.4665 | 0.4241 | 0.3855 | 0.3505 | 0.3186 | 0.2897 | 0.2633 | 0.2394 |
| 11% | 0.9009 | 0.8116 | 0.7312 | 0.6587 | 0.5935 | 0.5346 | 0.4817 | 0.4339 | 0.3909 | 0.3522 | 0.3173 | 0.2858 | 0.2575 | 0.2320 | 0.2090 |
| 12% | 0.8929 | 0.7972 | 0.7118 | 0.6355 | 0.5674 | 0.5066 | 0.4523 | 0.4039 | 0.3606 | 0.3220 | 0.2875 | 0.2567 | 0.2292 | 0.2046 | 0.1827 |
| 13% | 0.8850 | 0.7831 | 0.6931 | 0.6133 | 0.5428 | 0.4803 | 0.4251 | 0.3762 | 0.3329 | 0.2946 | 0.2607 | 0.2307 | 0.2042 | 0.1807 | 0.1599 |
| 14% | 0.8772 | 0.7695 | 0.6750 | 0.5921 | 0.5194 | 0.4556 | 0.3996 | 0.3506 | 0.3075 | 0.2697 | 0.2366 | 0.2076 | 0.1821 | 0.1597 | 0.1401 |
| 15% | 0.8696 | 0.7561 | 0.6575 | 0.5718 | 0.4972 | 0.4323 | 0.3759 | 0.3269 | 0.2843 | 0.2472 | 0.2149 | 0.1869 | 0.1625 | 0.1413 | 0.1229 |
| 16% | 0.8621 | 0.7432 | 0.6407 | 0.5523 | 0.4761 | 0.4104 | 0.3538 | 0.3050 | 0.2630 | 0.2267 | 0.1954 | 0.1685 | 0.1452 | 0.1252 | 0.1079 |
| 17% | 0.8547 | 0.7305 | 0.6244 | 0.5337 | 0.4561 | 0.3898 | 0.3332 | 0.2848 | 0.2434 | 0.2080 | 0.1778 | 0.1520 | 0.1299 | 0.1110 | 0.0949 |
| 18% | 0.8475 | 0.7182 | 0.6086 | 0.5158 | 0.4371 | 0.3704 | 0.3139 | 0.2660 | 0.2255 | 0.1911 | 0.1619 | 0.1372 | 0.1163 | 0.0985 | 0.0835 |
| 19% | 0.8403 | 0.7062 | 0.5934 | 0.4987 | 0.4190 | 0.3521 | 0.2959 | 0.2487 | 0.2090 | 0.1756 | 0.1476 | 0.1240 | 0.1042 | 0.0876 | 0.0736 |
| 20% | 0.8333 | 0.6944 | 0.5787 | 0.4823 | 0.4019 | 0.3349 | 0.2791 | 0.2326 | 0.1938 | 0.1615 | 0.1346 | 0.1122 | 0.0935 | 0.0779 | 0.0649 |
| 21% | 0.8264 | 0.6830 | 0.5645 | 0.4665 | 0.3855 | 0.3186 | 0.2633 | 0.2176 | 0.1799 | 0.1486 | 0.1228 | 0.1015 | 0.0839 | 0.0693 | 0.0573 |
| 22% | 0.8197 | 0.6719 | 0.5507 | 0.4514 | 0.3700 | 0.3033 | 0.2486 | 0.2038 | 0.1670 | 0.1369 | 0.1122 | 0.0920 | 0.0754 | 0.0618 | 0.0507 |
| 23% | 0.8130 | 0.6610 | 0.5374 | 0.4369 | 0.3552 | 0.2888 | 0.2348 | 0.1909 | 0.1552 | 0.1262 | 0.1026 | 0.0834 | 0.0678 | 0.0551 | 0.0448 |
| 24% | 0.8065 | 0.6504 | 0.5245 | 0.4230 | 0.3411 | 0.2751 | 0.2218 | 0.1789 | 0.1443 | 0.1164 | 0.0938 | 0.0757 | 0.0610 | 0.0492 | 0.0397 |
| 25% | 0.8000 | 0.6400 | 0.5120 | 0.4096 | 0.3277 | 0.2621 | 0.2097 | 0.1678 | 0.1342 | 0.1074 | 0.0859 | 0.0687 | 0.0550 | 0.0440 | 0.0352 |

*TABLE - 2* : **PRESENT VALUE OF AN ANNUITY OF RUPEE ONE**

| RATE | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 | YEAR 7 | YEAR 8 | YEAR 9 | YEAR 10 | YEAR 11 | YEAR 12 | YEAR 13 | YEAR 14 | YEAR 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | 0.9524 | 1.8594 | 2.7232 | 3.5460 | 4.3295 | 5.0757 | 5.7864 | 6.4632 | 7.1078 | 7.7217 | 8.3064 | 8.8633 | 9.3936 | 9.8986 | 10.3797 |
| 6% | 0.9434 | 1.8334 | 2.6730 | 3.4651 | 4.2124 | 4.9173 | 5.5824 | 6.2098 | 6.8017 | 7.3601 | 7.8869 | 8.3838 | 8.8527 | 9.2950 | 9.7122 |
| 7% | 0.9346 | 1.8080 | 2.6243 | 3.3872 | 4.1002 | 4.7665 | 5.3893 | 5.9713 | 6.5152 | 7.0236 | 7.4987 | 7.9427 | 8.3577 | 8.7455 | 9.1079 |
| 8% | 0.9259 | 1.7833 | 2.5771 | 3.3121 | 3.9927 | 4.6229 | 5.2064 | 5.7466 | 6.2469 | 6.7101 | 7.1390 | 7.5361 | 7.9038 | 8.2442 | 8.5595 |
| 9% | 0.9174 | 1.7591 | 2.5313 | 3.2397 | 3.8897 | 4.4859 | 5.0330 | 5.5348 | 5.9952 | 6.4177 | 6.8052 | 7.1607 | 7.4869 | 7.7862 | 8.0607 |
| 10% | 0.9091 | 1.7355 | 2.4869 | 3.1699 | 3.7908 | 4.3553 | 4.8684 | 5.3349 | 5.7590 | 6.1446 | 6.4951 | 6.8137 | 7.1034 | 7.3667 | 7.6061 |
| 11% | 0.9009 | 1.7125 | 2.4437 | 3.1024 | 3.6959 | 4.2305 | 4.7122 | 5.1461 | 5.5370 | 5.8892 | 6.2065 | 6.4924 | 6.7499 | 6.9819 | 7.1909 |
| 12% | 0.8929 | 1.6901 | 2.4018 | 3.0373 | 3.6048 | 4.1114 | 4.5638 | 4.9676 | 5.3282 | 5.6502 | 5.9377 | 6.1944 | 6.4235 | 6.6282 | 6.8109 |
| 13% | 0.8850 | 1.6681 | 2.3612 | 2.9745 | 3.5172 | 3.9975 | 4.4226 | 4.7988 | 5.1317 | 5.4262 | 5.6869 | 5.9176 | 6.1218 | 6.3025 | 6.4624 |
| 14% | 0.8772 | 1.6467 | 2.3216 | 2.9137 | 3.4331 | 3.8887 | 4.2883 | 4.6389 | 4.9464 | 5.2161 | 5.4527 | 5.6603 | 5.8424 | 6.0021 | 6.1422 |
| 15% | 0.8696 | 1.6257 | 2.2832 | 2.8550 | 3.3522 | 3.7845 | 4.1604 | 4.4873 | 4.7716 | 5.0188 | 5.2337 | 5.4206 | 5.5831 | 5.7245 | 5.8474 |
| 16% | 0.8621 | 1.6052 | 2.2459 | 2.7982 | 3.2743 | 3.6847 | 4.0386 | 4.3436 | 4.6065 | 4.8332 | 5.0286 | 5.1971 | 5.3423 | 5.4675 | 5.5755 |
| 17% | 0.8547 | 1.5852 | 2.2096 | 2.7432 | 3.1993 | 3.5892 | 3.9224 | 4.2072 | 4.4506 | 4.6586 | 4.8364 | 4.9884 | 5.1183 | 5.2293 | 5.3242 |
| 18% | 0.8475 | 1.5656 | 2.1743 | 2.6901 | 3.1272 | 3.4976 | 3.8115 | 4.0776 | 4.3030 | 4.4941 | 4.6560 | 4.7932 | 4.9095 | 5.0081 | 5.0916 |
| 19% | 0.8403 | 1.5465 | 2.1399 | 2.6386 | 3.0576 | 3.4098 | 3.7057 | 3.9544 | 4.1633 | 4.3389 | 4.4865 | 4.6105 | 4.7147 | 4.8023 | 4.8759 |
| 20% | 0.8333 | 1.5278 | 2.1065 | 2.5887 | 2.9906 | 3.3255 | 3.6046 | 3.8372 | 4.0310 | 4.1925 | 4.3271 | 4.4392 | 4.5327 | 4.6106 | 4.6755 |
| 21% | 0.8264 | 1.5095 | 2.0739 | 2.5404 | 2.9260 | 3.2446 | 3.5079 | 3.7256 | 3.9054 | 4.0541 | 4.1769 | 4.2784 | 4.3624 | 4.4317 | 4.4890 |
| 22% | 0.8197 | 1.4915 | 2.0422 | 2.4936 | 2.8636 | 3.1669 | 3.4155 | 3.6193 | 3.7863 | 3.9232 | 4.0354 | 4.1274 | 4.2028 | 4.2646 | 4.3152 |
| 23% | 0.8130 | 1.4740 | 2.0114 | 2.4483 | 2.8035 | 3.0923 | 3.3270 | 3.5179 | 3.6731 | 3.7993 | 3.9018 | 3.9852 | 4.0530 | 4.1082 | 4.1530 |
| 24% | 0.8065 | 1.4568 | 1.9813 | 2.4043 | 2.7454 | 3.0205 | 3.2423 | 3.4212 | 3.5655 | 3.6819 | 3.7757 | 3.8514 | 3.9124 | 3.9616 | 4.0013 |
| 25% | 0.8000 | 1.4400 | 1.9520 | 2.3616 | 2.6893 | 2.9514 | 3.1611 | 3.3289 | 3.4631 | 3.5705 | 3.6564 | 3.7251 | 3.7801 | 3.8241 | 3.8593 |