



School: School of Business and Law
Program/s: BBA
Year: 2nd **Semester:** 3rd
Examination: End Semester Examination
Examination year: December - 2021

Course Code: FA 203 **Course Name:** Financial Management 2
Date: 03/12/2021
Time: 11:30 am to 01:30 pm

Total Marks: 40
Total Pages: 3

Instructions:

- Write each answer on a new page.
- Use of a calculator is permitted. Present Value tables annexed
- Notations have their usual meaning.
- Advisable to go through the question paper at the start of the exam and attempt those questions first that you are more comfortable with.
- *COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

| Q. No. | Details | Marks | CCs * | BTL # | | | | | | | | | | |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------|----------|--------|---|--------|---|--------|---|--------|---|-----|-------|
| Q.1 | | | | | | | | | | | | | | |
| a) | The DOL and DFL of a company are 1.25 and 1.2 respectively. The current sales of the company are Rs. 10,00,000 and the EPS (Earning per share) is Rs. 5. If the sales rise to Rs. 12,00,000 what will be the new EPS at this increased level of sales? | 5 | CO1 | 2,3,4,5 | | | | | | | | | | |
| b) | A project requires an initial investment of Rs. 8000. The NPV of the project at 12% discounting rate is 2000. What is the PI (Profitability Index) for the project (at 12% discounting rate)? | 3 | CO3 | 2,3,4 | | | | | | | | | | |
| Q.2 | | | | | | | | | | | | | | |
| a) | <p>Project D requires an initial investment of Rs. 1,00,000 and has a life of four years. The yearly cash inflows after taxes (CFAT) are:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Year</th> <th>CFAT (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25,000</td> </tr> <tr> <td>2</td> <td>25,000</td> </tr> <tr> <td>3</td> <td>25,000</td> </tr> <tr> <td>4</td> <td>34,000</td> </tr> </tbody> </table> <p>Calculate the Internal Rate of Return for the project. Will the project be accepted if the required rate of return is 12%?</p> | Year | CFAT (Rs.) | 1 | 25,000 | 2 | 25,000 | 3 | 25,000 | 4 | 34,000 | 5 | CO3 | 2,3,4 |
| Year | CFAT (Rs.) | | | | | | | | | | | | | |
| 1 | 25,000 | | | | | | | | | | | | | |
| 2 | 25,000 | | | | | | | | | | | | | |
| 3 | 25,000 | | | | | | | | | | | | | |
| 4 | 34,000 | | | | | | | | | | | | | |

| b) | The Net profit Margin (NPM) of ABC Ltd. is 0.08 (i.e. 8%). The Asset Turnover ratio (ATR) is 3. The Assets to Equity ratio 2. What is the Return on Equity (ROE) for ABC Ltd. ? | 3 | CO4 | 2,3,4 | | | | | | | | | | | | | | | | | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|---|------------|-------------|---|--------|----------|---|--------|--------|---|--------|--|---|--------|--|---|-----|-------|
| Q.3 | <p>XYZ Ltd. is undertaking a new project for which it will require Rs. 2,00,000. Debentures will cost 11% p.a., preference shares 10% p.a. and Equity shares can be sold at Rs. 100 per Equity Share. Income tax rate is 20%.</p> <p>The company has a choice of the following plans for financing its funds requirement:</p> <p>i) Issue a 1000 number of Equity Shares and for balance amount issue Rs. 1,00,000 worth of Debentures.</p> <p>ii) Issue 500 number of Equity shares, Rs. 1,00,000 worth of Debentures and Rs. 50,000 worth of Preference shares</p> <p>Based on the above:</p> <p>a) Calculate the Indifference Point for the above mentioned financing plans. (7 marks)</p> <p>b) If the expected EBIT after the expansion is Rs.30,000 which of the above plan will give a higher EPS. (1 mark)</p> | 8 | CO2 | 2,3,4,5 | | | | | | | | | | | | | | | | | | |
| Q.4 | <p>Growth Ltd. is planning to expand its operation and is considering one of the two projects for investments. Both the projects require an initial investment (Cash outflow) of Rs. 2,50,000 and will have following Cash Inflows:</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Project 'A'</th> <th>Project 'B'</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Rs. 60,000</td> <td>Rs.1,00,000</td> </tr> <tr> <td>2</td> <td>60,000</td> <td>1,50,000</td> </tr> <tr> <td>3</td> <td>70,000</td> <td>20,000</td> </tr> <tr> <td>4</td> <td>80,000</td> <td></td> </tr> <tr> <td>5</td> <td>80,000</td> <td></td> </tr> </tbody> </table> <p>The required rate of return for the company is 11%.</p> <p>Calculate:</p> <p>a) The Payback period for both the projects (3 marks)</p> <p>b) The NPV for both the projects (5 marks)</p> | Year | Project 'A' | Project 'B' | 1 | Rs. 60,000 | Rs.1,00,000 | 2 | 60,000 | 1,50,000 | 3 | 70,000 | 20,000 | 4 | 80,000 | | 5 | 80,000 | | 8 | CO3 | 2,3,4 |
| Year | Project 'A' | Project 'B' | | | | | | | | | | | | | | | | | | | | |
| 1 | Rs. 60,000 | Rs.1,00,000 | | | | | | | | | | | | | | | | | | | | |
| 2 | 60,000 | 1,50,000 | | | | | | | | | | | | | | | | | | | | |
| 3 | 70,000 | 20,000 | | | | | | | | | | | | | | | | | | | | |
| 4 | 80,000 | | | | | | | | | | | | | | | | | | | | | |
| 5 | 80,000 | | | | | | | | | | | | | | | | | | | | | |
| Q.5 | XYZ Ltd. is considering to relax its credit period from 40 days to 60 days (for its Customers). Currently, it has Credit sales amounting to Rs. 28,00,000. | | CO5 | 2,3,4,5 | | | | | | | | | | | | | | | | | | |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|--|
| <p>The sale price per unit is Rs. 40, the variable cost is Rs. 25 while the average cost is Rs. 35 per unit at current sales level. If credit period is increased, the sales are expected to rise to Rs. 30,00,000. Bad debts will also increase from 1% of sales to 2% of sales if credit terms are relaxed. The cost of financing the debtors is 15% p.a. Should the company relax its credit policy? (<i>Assume all sales are credit sales</i>)</p> | 8 | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|--|

*****End of Question Paper*****

PRESENT VALUE OF ANNUITY OF Rs. 1

Discounting Rate

| Year | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% | 12% |
|------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 0.9901 | 0.9804 | 0.9709 | 0.9615 | 0.9524 | 0.9434 | 0.9346 | 0.9259 | 0.9174 | 0.9091 | 0.9009 | 0.8929 |
| 2 | 1.9704 | 1.9416 | 1.9135 | 1.8861 | 1.8594 | 1.8334 | 1.8080 | 1.7833 | 1.7591 | 1.7355 | 1.7125 | 1.6901 |
| 3 | 2.9410 | 2.8839 | 2.8286 | 2.7751 | 2.7232 | 2.6730 | 2.6243 | 2.5771 | 2.5313 | 2.4869 | 2.4437 | 2.4018 |
| 4 | 3.9020 | 3.8077 | 3.7171 | 3.6299 | 3.5460 | 3.4651 | 3.3872 | 3.3121 | 3.2397 | 3.1699 | 3.1024 | 3.0373 |
| 5 | 4.8534 | 4.7135 | 4.5797 | 4.4518 | 4.3295 | 4.2124 | 4.1002 | 3.9927 | 3.8897 | 3.7908 | 3.6959 | 3.6048 |
| 6 | 5.7955 | 5.6014 | 5.4172 | 5.2421 | 5.0757 | 4.9173 | 4.7665 | 4.6229 | 4.4859 | 4.3553 | 4.2305 | 4.1114 |
| 7 | 6.7282 | 6.4720 | 6.2303 | 6.0021 | 5.7864 | 5.5824 | 5.3893 | 5.2064 | 5.0330 | 4.8684 | 4.7122 | 4.5638 |
| 8 | 7.6517 | 7.3255 | 7.0197 | 6.7327 | 6.4632 | 6.2098 | 5.9713 | 5.7466 | 5.5348 | 5.3349 | 5.1461 | 4.9676 |
| 9 | 8.5660 | 8.1622 | 7.7861 | 7.4353 | 7.1078 | 6.8017 | 6.5152 | 6.2469 | 5.9952 | 5.7590 | 5.5370 | 5.3282 |
| 10 | 9.4713 | 8.9826 | 8.5302 | 8.1109 | 7.7217 | 7.3601 | 7.0236 | 6.7101 | 6.4177 | 6.1446 | 5.8892 | 5.6502 |
| 11 | 10.3676 | 9.7868 | 9.2526 | 8.7605 | 8.3064 | 7.8869 | 7.4987 | 7.1390 | 6.8052 | 6.4951 | 6.2065 | 5.9377 |
| 12 | 11.2551 | 10.5753 | 9.9540 | 9.3851 | 8.8633 | 8.3838 | 7.9427 | 7.5361 | 7.1607 | 6.8137 | 6.4924 | 6.1944 |
| 13 | 12.1337 | 11.3484 | 10.6350 | 9.9856 | 9.3936 | 8.8527 | 8.3577 | 7.9038 | 7.4869 | 7.1034 | 6.7499 | 6.4235 |
| 14 | 13.0037 | 12.1062 | 11.2961 | 10.5631 | 9.8986 | 9.2950 | 8.7455 | 8.2442 | 7.7862 | 7.3667 | 6.9819 | 6.6282 |
| 15 | 13.8651 | 12.8493 | 11.9379 | 11.1184 | 10.3797 | 9.7122 | 9.1079 | 8.5595 | 8.0607 | 7.6061 | 7.1909 | 6.8109 |

| Year | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | 21% | 22% | 23% | 24% |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 0.8850 | 0.8772 | 0.8696 | 0.8621 | 0.8547 | 0.8475 | 0.8403 | 0.8333 | 0.8264 | 0.8197 | 0.8130 | 0.8065 |
| 2 | 1.6681 | 1.6467 | 1.6257 | 1.6052 | 1.5852 | 1.5656 | 1.5465 | 1.5278 | 1.5095 | 1.4915 | 1.4740 | 1.4568 |
| 3 | 2.3612 | 2.3216 | 2.2832 | 2.2459 | 2.2096 | 2.1743 | 2.1399 | 2.1065 | 2.0739 | 2.0422 | 2.0114 | 1.9813 |
| 4 | 2.9745 | 2.9137 | 2.8550 | 2.7982 | 2.7432 | 2.6901 | 2.6386 | 2.5887 | 2.5404 | 2.4936 | 2.4483 | 2.4043 |
| 5 | 3.5172 | 3.4331 | 3.3522 | 3.2743 | 3.1993 | 3.1272 | 3.0576 | 2.9906 | 2.9260 | 2.8636 | 2.8035 | 2.7454 |
| 6 | 3.9975 | 3.8887 | 3.7845 | 3.6847 | 3.5892 | 3.4976 | 3.4098 | 3.3255 | 3.2446 | 3.1669 | 3.0923 | 3.0205 |
| 7 | 4.4226 | 4.2883 | 4.1604 | 4.0386 | 3.9224 | 3.8115 | 3.7057 | 3.6046 | 3.5079 | 3.4155 | 3.3270 | 3.2423 |
| 8 | 4.7988 | 4.6389 | 4.4873 | 4.3436 | 4.2072 | 4.0776 | 3.9544 | 3.8372 | 3.7256 | 3.6193 | 3.5179 | 3.4212 |
| 9 | 5.1317 | 4.9464 | 4.7716 | 4.6065 | 4.4506 | 4.3030 | 4.1633 | 4.0310 | 3.9054 | 3.7863 | 3.6731 | 3.5655 |
| 10 | 5.4262 | 5.2161 | 5.0188 | 4.8332 | 4.6586 | 4.4941 | 4.3389 | 4.1925 | 4.0541 | 3.9232 | 3.7993 | 3.6819 |
| 11 | 5.6869 | 5.4527 | 5.2337 | 5.0286 | 4.8364 | 4.6560 | 4.4865 | 4.3271 | 4.1769 | 4.0354 | 3.9018 | 3.7757 |
| 12 | 5.9176 | 5.6603 | 5.4206 | 5.1971 | 4.9884 | 4.7932 | 4.6105 | 4.4392 | 4.2784 | 4.1274 | 3.9852 | 3.8514 |
| 13 | 6.1218 | 5.8424 | 5.5831 | 5.3423 | 5.1183 | 4.9095 | 4.7147 | 4.5327 | 4.3624 | 4.2028 | 4.0530 | 3.9124 |

PRESENT VALUE OF Rs. 1

Discounting Rate

| Year | 1% | 2% | 3% | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% | 12% |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 0.9901 | 0.9804 | 0.9709 | 0.9615 | 0.9524 | 0.9434 | 0.9346 | 0.9259 | 0.9174 | 0.9091 | 0.9009 | 0.8929 |
| 2 | 0.9803 | 0.9612 | 0.9426 | 0.9246 | 0.9070 | 0.8900 | 0.8734 | 0.8573 | 0.8417 | 0.8264 | 0.8116 | 0.7972 |
| 3 | 0.9706 | 0.9423 | 0.9151 | 0.8890 | 0.8638 | 0.8396 | 0.8163 | 0.7938 | 0.7722 | 0.7513 | 0.7312 | 0.7118 |
| 4 | 0.9610 | 0.9238 | 0.8885 | 0.8548 | 0.8227 | 0.7921 | 0.7629 | 0.7350 | 0.7084 | 0.6830 | 0.6587 | 0.6355 |
| 5 | 0.9515 | 0.9057 | 0.8626 | 0.8219 | 0.7835 | 0.7473 | 0.7130 | 0.6806 | 0.6499 | 0.6209 | 0.5935 | 0.5674 |
| 6 | 0.9420 | 0.8880 | 0.8375 | 0.7903 | 0.7462 | 0.7050 | 0.6663 | 0.6302 | 0.5963 | 0.5645 | 0.5346 | 0.5066 |
| 7 | 0.9327 | 0.8706 | 0.8131 | 0.7599 | 0.7107 | 0.6651 | 0.6227 | 0.5835 | 0.5470 | 0.5132 | 0.4817 | 0.4523 |
| 8 | 0.9235 | 0.8535 | 0.7894 | 0.7307 | 0.6768 | 0.6274 | 0.5820 | 0.5403 | 0.5019 | 0.4665 | 0.4339 | 0.4039 |
| 9 | 0.9143 | 0.8368 | 0.7664 | 0.7026 | 0.6446 | 0.5919 | 0.5439 | 0.5002 | 0.4604 | 0.4241 | 0.3909 | 0.3606 |
| 10 | 0.9053 | 0.8203 | 0.7441 | 0.6756 | 0.6139 | 0.5584 | 0.5083 | 0.4632 | 0.4224 | 0.3855 | 0.3522 | 0.3220 |
| 11 | 0.8963 | 0.8043 | 0.7224 | 0.6496 | 0.5847 | 0.5268 | 0.4751 | 0.4289 | 0.3875 | 0.3505 | 0.3173 | 0.2875 |
| 12 | 0.8874 | 0.7885 | 0.7014 | 0.6246 | 0.5568 | 0.4970 | 0.4440 | 0.3971 | 0.3555 | 0.3186 | 0.2858 | 0.2567 |
| 13 | 0.8787 | 0.7730 | 0.6810 | 0.6006 | 0.5303 | 0.4688 | 0.4150 | 0.3677 | 0.3262 | 0.2897 | 0.2575 | 0.2292 |
| 14 | 0.8700 | 0.7579 | 0.6611 | 0.5775 | 0.5051 | 0.4423 | 0.3878 | 0.3405 | 0.2992 | 0.2633 | 0.2320 | 0.2046 |
| 15 | 0.8613 | 0.7430 | 0.6419 | 0.5553 | 0.4810 | 0.4173 | 0.3624 | 0.3152 | 0.2745 | 0.2394 | 0.2090 | 0.1827 |

| Year | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | 21% | 22% | 23% | 24% |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 0.8850 | 0.8772 | 0.8696 | 0.8621 | 0.8547 | 0.8475 | 0.8403 | 0.8333 | 0.8264 | 0.8197 | 0.8130 | 0.8065 |
| 2 | 0.7831 | 0.7695 | 0.7561 | 0.7432 | 0.7305 | 0.7182 | 0.7062 | 0.6944 | 0.6830 | 0.6719 | 0.6610 | 0.6504 |
| 3 | 0.6931 | 0.6750 | 0.6575 | 0.6407 | 0.6244 | 0.6086 | 0.5934 | 0.5787 | 0.5645 | 0.5507 | 0.5374 | 0.5245 |
| 4 | 0.6133 | 0.5921 | 0.5718 | 0.5523 | 0.5337 | 0.5158 | 0.4987 | 0.4823 | 0.4665 | 0.4514 | 0.4369 | 0.4230 |
| 5 | 0.5428 | 0.5194 | 0.4972 | 0.4761 | 0.4561 | 0.4371 | 0.4190 | 0.4019 | 0.3855 | 0.3700 | 0.3552 | 0.3411 |
| 6 | 0.4803 | 0.4556 | 0.4323 | 0.4104 | 0.3898 | 0.3704 | 0.3521 | 0.3349 | 0.3186 | 0.3033 | 0.2888 | 0.2751 |
| 7 | 0.4251 | 0.3996 | 0.3759 | 0.3538 | 0.3332 | 0.3139 | 0.2959 | 0.2791 | 0.2633 | 0.2486 | 0.2348 | 0.2218 |
| 8 | 0.3762 | 0.3506 | 0.3269 | 0.3050 | 0.2848 | 0.2660 | 0.2487 | 0.2326 | 0.2176 | 0.2038 | 0.1909 | 0.1789 |
| 9 | 0.3329 | 0.3075 | 0.2843 | 0.2630 | 0.2434 | 0.2255 | 0.2090 | 0.1938 | 0.1799 | 0.1670 | 0.1552 | 0.1443 |
| 10 | 0.2946 | 0.2697 | 0.2472 | 0.2267 | 0.2080 | 0.1911 | 0.1756 | 0.1615 | 0.1486 | 0.1369 | 0.1262 | 0.1164 |
| 11 | 0.2607 | 0.2366 | 0.2149 | 0.1954 | 0.1778 | 0.1619 | 0.1476 | 0.1346 | 0.1228 | 0.1122 | 0.1026 | 0.0938 |
| 12 | 0.2307 | 0.2076 | 0.1869 | 0.1685 | 0.1520 | 0.1372 | 0.1240 | 0.1122 | 0.1015 | 0.0920 | 0.0834 | 0.0757 |
| 13 | 0.2042 | 0.1821 | 0.1625 | 0.1452 | 0.1299 | 0.1163 | 0.1042 | 0.0935 | 0.0839 | 0.0754 | 0.0678 | 0.0610 |