## 335

Roll No. $\qquad$

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) Financial management has changed significantly in its scope and complexity in recent times.
(b) Loan syndication is one of the project finance services.
(c) Working capital management is all about deciding the level, structure and financing of current assets.
(d) Treasury operations are important in banking due to huge funds involved.
(5 marks each)

Attempt all parts of either Q.No. 2 or Q.No. 2A
2. Distinguish between the following :
(a) 'Currency futures' and 'currency options' in forex trading.
(b) 'Operating leverage' and 'financial leverage'.
(c) 'Leasing' and 'hire-purchase'.
(d) 'Efficient portfolio' and 'optimal portfolio'.
(4 marks each)

OR (Alternate question to Q.No. 2)

2A. (i) Foreign exchange market provides a mechanism for transfer of purchasing power from one currency to another for its various constituents. Discuss.

## 335

: 2 :
(ii) Mention the steps taken by financial institutions while appraising a project.
(4 marks)
(iii) What are the main determinants of dividend policy in a company ?
(4 marks)
(iv) Capital rationing does not lead to optimum results. Discuss.
(4 marks)

Attempt all parts of either Q.No. 3 or Q.No. 3A
3. (a) $A B C$ Ltd. has an average selling price of $₹ 10$ per unit. Its variable unit costs are $₹ 7$ and fixed costs amount to $₹ 1,70,000$. It finances all its assets by equity funds. It pays $30 \%$ tax on its income. PQR Ltd. is identical to ABC Ltd. except in respect of the pattern of financing. The latter finances its assets $50 \%$ by equity and $50 \%$ by debt, the interest on which amounts to ₹ 20,000 .

Determine the degree of operating, financial and combined leverages at ₹ $7,00,000$ sales for both the companies and interpret the results.
(4 marks)
(b) Product-Y is sold for $₹ 20$ per unit. The demand for the product is at a constant rate of 2,000 units per month. The cost price per unit is $₹ 10$. The ordering cost is $₹ 1.20$ per order and the carrying cost is $10 \%$ per annum. Calculate EOQ and number of orders needed per year.
(4 marks)
(c) The rate of inflation in USA is likely to be $3 \%$ per annum and in India it is likely to be $6.5 \%$. The current spot rate of US \$ in India is ₹ 68.40 . Find the expected rate of US \$ in India after 1 year and 3 years from now using purchasing power parity theory.
(4 marks)
$\qquad$

## 335

: 3 :
(d) The following data relate to two securities, A and B :

|  | $A$ | $B$ |
| :--- | :---: | :---: |
| Expected return | $22 \%$ | $17 \%$ |
| Beta factor $(\beta)$ | 1.5 | 0.7 |

Assume $\mathrm{RF}=10 \%$ and $\mathrm{RM}=18 \%$.
Find out whether the securities, A and B are correctly priced ?
(4 marks)

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

3A. (i) Current price of share of a company is $₹ 60$ and dividend per share is $₹ 4$. If its capitalisation rate is $12 \%$, what is the dividend growth rate ?
(4 marks)
(ii) Radha bought a 3-month call option on A Ltd.'s share with an exercise price of ₹50 at a premium of ₹4. She has also bought a put option on the same share at an exercise price of ₹ 40 at a premium of $₹ 1.50$. A's share is currently selling at ₹ 45 . What will be Radha's position after three months if the share price turns out to be ₹50 or ₹ 30 ?
(4 marks)
(iii) The credit sales of a firm is ₹ $6,40,000$. It has a gross profit margin of $15 \%$ and a current ratio of 2.5 . The firm's current liabilities are $₹ 96,000$; inventories $₹ 48,000$ and cash ₹ 16,000 .
(a) Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected. (assume 360 days in a year);
(b) What is the average collection period ?
(4 marks)
(iv) A company is planning to purchase a machine. It costs ₹ 50,000 and has no salvage value. The expected life of machine is 5 years and company applies straight line method of depreciation. The estimated earnings after tax are ₹ 5,000 each year for 5 years. Required rate of return of the company after tax is $12 \%$. Should the company purchase the machine using NPV method ?
(4 marks)

## 335

$$
\text { : } 4 \text { : }
$$

4. (a) A new project under consideration requires a capital outlay of ₹ 300 lakh for which the funds can either be raised by issue of equity shares of ₹ 100 each for the entire sum or by issue of equity shares to the tune of ₹200 lakh and by issue of $15 \%$ loan of ₹ 100 lakh. Find out the indifference level of EBIT, if the tax rate is $50 \%$.
(b) A perpetual bond of ₹ 100 is currently selling for ₹ 95 . The coupon rate is $13.5 \%$ and the appropriate rate of discount is $15 \%$. Calculate the value of the bond. Should it be bought ? What is its yield at maturity ?
(c) Financial services are fundamental to economic growth and development. Explain.
(d) What is operating lease ?
5. (a) A company is currently paying a dividend of $₹ 2$ per share. The dividend is expected to grow at $15 \%$ annually for three years, then at $10 \%$ rate for the next three years after which it is expected to grow at $5 \%$ rate forever.
(i) What is the present value of the share if the capitalisation rate is $9 \%$ ?
(ii) If the share is held for three years, what shall be its present value ?
(8 marks)
(b) An Indian importer has to settle an import bill for Singapore $\$ 1,30,000$. The exporter has given the Indian exporter two options :
(i) Pay immediately without any interest charges
(ii) Pay after three months with interest @ 5\% per annum

The importer's bank charges $15 \%$ per annum on overdrafts. The exchange rates in the market are as follows :

Spot rate (₹/Singapore \$) : 48.35/48.36
3-Month forward rate (₹/Singapore \$) : 48.81/48.83
The importer seeks your advice.
$\qquad$

## 335

: 5 :
6. Gold Ltd. is considering a proposal to replace an existing equipment by a new one. The new equipment is operationally efficient and will result in saving in operating costs estimated at $₹ 1,50,000$, annually. It will cost $₹ 3,00,000$ and will be purchased at the beginning of the year. The equipment dealer states that most companies use a four year life while depreciating the equipment. As the equipment will be operational in mid of the year, only $60 \%$ of the estimated annual savings will be obtained in the first year. A one time expense of ₹ 30,000 will be incurred in transferring production activities from the old equipment to the new one.

The equipment, currently in use, is fully depreciated and has no book value. However, its condition reveals that it can be used for an additional 5 years. The firm will receive ₹5,000, if it is disposed off now.

The company uses the straight line method of depreciation. Assuming that the full year's depreciation is taken into account in the first year, the corporate tax rate for all revenues and gains is $30 \%$ and required rate of return is $15 \%$, what action should be taken by management of Gold Ltd. ?
(16 marks)


| RATE | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | year | YEAR | YEAR | YEAR | YEAR | year | YEAR | YEAR | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 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 |


|  |  |  |  |  | E-2. | ESENT | ALUE | AN AN | UITY OF | RUPEE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RATE | YEAR 1 | YEAR <br> 2 | YEAR <br> 3 | YEAR <br> 4 | YEAR <br> 5 | YEAR <br> 6 | YEAR <br> 7 | YEAR <br> 8 | YEAR <br> 9 | YEAR <br> 10 | YEAR <br> 11 | YEAR <br> 12 | YEAR <br> 13 | YEAR <br> 14 | YEAR <br> 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 | $\checkmark$ |
| 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 |  |

