31. Monthly return data (in per cent) for ONGC stock and the NSE index for a 12 month period are presented below:

| Month | ONGC | NSE Index |
| :---: | :---: | :---: |
| 1 | -0.75 | -0.35 |
| 2 | 5.45 | -0.49 |
| 3 | -3.05 | -1.03 |
| 4 | 3.41 | 1.64 |
| 5 | 9.13 | 6.67 |
| 6 | 2.36 | 1.13 |
| 7 | -0.42 | 0.72 |
| 8 | 5.51 | 0.84 |
| 9 | 6.80 | 4.05 |
| 10 | 2.60 | 1.21 |
| 11 | -3.81 | 0.29 |
| 12 | -1.91 | -1.96 |

a) Calculate alpha and beta for the ONGC stock.
b) Suppose NSE Index is expected to move up by 15 per cent next month, how much return would you expect from ONGC?

## 18 U 549

(Pages:4)
Name:
Reg. No.. $\qquad$
FIFTH SEMESTER B.Com. DEGREE EXAMINATION, NOVEMBER 2020 (CUCBCSS-UG)
(Regular/Supplementary/Improvement)

## CC17U BC5 B11 - FUNDAMENTALS OF INVESTMENTS

## (Core Course)

(2017 Admission onwards)
Time: Three Hours

## Part I

Answer all questions. Each question carries 1 mark.
(A) Choose the Correct Answer:

1. $\qquad$ .. Por
b) Aggressive Portfolio
c) Efficient Portfolio
d) Conservative Portfolio.
2. Which equity valuation model is considered as capitalization model?
a) Constant growth model
b) Multiple growth model
c) Single period valuation model
d) Compounding model
3. Who among the following have the authority to issue Certificate of Deposits?
a) RBI
b) SEBI
c) Commercial Banks
d) Public Limited Companies
4. $\ldots . . . . . .$. is the measure of Systematic Risk.
a) Standard Deviation b) Range
c) Beta
d) Covariance
5. Which among the following is the level, which the technical analyst believes a stock price, should never fall below?
a) Support level
b) Resistance level
c) Maximum level
d) None of the above
(B) Fill in the blanks with the correct answer:
6. YTM stands for $\qquad$
7. Name the statistical measure used for measuring portfolio risk.
8. . $\qquad$ . analysis is forecasting the future financial price movements based on the examination of past price movements.
9. $\ldots \ldots \ldots \ldots \ldots \ldots$ is the technique that reduces risk by allocating investments among various financial instruments and companies
10. .
$0 . \ldots \ldots \ldots \ldots \ldots$ is the excess return that an investor can expect from the market over and above a risk-free return.

Answer any eight questions. Each question carries 2 marks.
11. Explain the concept of Systematic Risk. Why is it called Systematic Risk?
12. What do you mean by wedges in technical analysis?
13. Explain Single Index Model.
14. What is IPF?

15 . What is multiple period growth model of equity valuation?
16. What does "New Issue Market" mean?
17. What is Beta? How is it interpreted?
18. There is a share of preferred stock with a par value of Rs. 100 that pays $12 \%$ annual dividend. If the discount rate for this stock is $15 \%$, what is the value of share?
19. What is Gambling?
20. Give a short account on Efficient market theory.
( $8 \times 2=16$ Marks)

## Part III

Answer any six questions. Each question carries 4 marks.
21. What are the characteristics that an investor would like to have in an investment option? Explain each of these characteristics.
22. Calculate the expected return and standard deviation of returns for a stock having the following probability distribution of returns.

| Possible returns (in per cent) | Probability of occurrence |
| :---: | :---: |
| -25 | 0.05 |
| -10 | 0.10 |
| 0 | 0.10 |
| 15 | 0.15 |
| 20 | 0.25 |
| 30 | 0.20 |
| 35 | 0.15 |

23. Write short notes on the following:
a) Interest rate risk
b) Market risk
c) Purchasing power risk.
24. Explain the impact of the following economic variables on the performance of the economy as well as the companies:
a) Interest rates
b) Government revenue and expenditure
c) Infrastructure.
25. A share is currently selling for Rs.65. The company is expected to pay a dividend of Rs. 2.50 on the share at the end of the year. It is reliably estimated that the share will be sold for Rs. 78 at the end of the year.
a) Assuming that the dividend and price forecasts are accurate, would you buy the share to hold it for one year, if your required rate of return were 12 per cent?
b) Given the current price of Rs. 65 and the expected dividend of Rs.2.50, what would the price have to be at the end of one year to justify purchase of the share today, if your required rate to return were 15 per cent?
26. An investor owns a portfolio composed of five securities with the following characteristics:

| Security | Beta | Standard Deviation (\%) | Proportion |
| :--- | :---: | :---: | :---: |
| 1 | 1.35 | 5 | 0.10 |
| 2 | 1.05 | 9 | 0.20 |
| 3 | 0.80 | 4 | 0.15 |
| 4 | 1.50 | 12 | 0.30 |
| 5 | 1.12 | 8 | 0.25 |

If the standard deviation of the market index is 20 per cent, what is the total risk of the portfolio?
27. A bond pays interest annually and sells for Rs.835. It has six years left to maturity and a par value of Rs. 1000 . What is the coupon rate if its promised YTM is 12 per cent?
28. Distinguish between fundamental and technical analysis.
( $6 \times 4$ = 24 Marks

## Part IV

Answer any two questions. Each question carries 15 marks.
29. Write short notes on:
a) Japanese candle stick charts.
b) Cup and Handle
c) Flags and pennants
d) Trend Reversal
e) Support and Resistance patterns
30. The historical rates of return of two securities over the past 10 years are given below. Calculate the covariance and correlation of the two securities.

| Years | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Security 1 (return \%) | 12 | 8 | 7 | 14 | 16 | 15 | 18 | 20 | 16 | 22 |
| Security 2 (return \%) | 20 | 22 | 24 | 18 | 15 | 20 | 24 | 25 | 22 | 20 |

