

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2020 ONLY)

20UMS6S3

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**  
**END-OF-SEMESTER EXAMINATIONS : MAY-2023**  
**B.Sc. - MATHEMATICS (AIDED) MAXIMUM MARKS: 50**  
**SEMESTER:VI TIME : 2 HOURS**

**PART – IV**

**MATHEMATICS FOR FINANCE**

**SECTION – A (10 X 1 = 10 MARKS)**

**ANSWER ALL QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS. (K1)**

1. .... involved a comparison of ratios of a firm over time.  
a) inter - firm comparison                      b) comparison of items within a single year  
c) comparison with standard plans              d) trend ratio
2. Which of the following is a not type of ratio?  
a) Liquidity ratio   b) leverage ratio   c) Activity ratio   d) none
3. .... are cash and marketable securities.  
a) quick assets   b) super quick assets   c) liquid assets   d) current assets
4. The ..... is the ratio between current assets and current liabilities.  
a) current ratio   b) leverage ratio   c) Activity ratio   d) Acid-test ratio
5. Which of the following are importance of Ratio analysis?  
a) liquidity position                                  b) long term solvency  
c) trend analysis                                      d) all of the above

**ANSWER THE FOLLOWING IN ONE OR TWO SENTENCES. (K2)**

6. Define ratio analysis.
7. What is meant by coverage ratio?
8. Expand EBIT.
9. List out the types of turnover ratio.
10. Which shows the relationship between credit sales and debtors of a firm?

**SECTION – B (5 X 8 = 40 MARKS)**

**ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS. (K4 & K5)**

11. Explain in detail liquidity ratio.
12. Explain coverage ratio.
13. Describe importance ratio analysis.
14. Explain in detail about profitability ratios related to investment.
15. Draw a Du Pont chart for earning power of a firm.

**(CONTD.....2)**

16. B. Raj & Co. sells goods on cash as well as credit. The following particulars are extracted from their books of accounts for the current year-end.

Total gross sales	Rs. 1,00,000
Cash sales	Rs. 20,000
Sales returns	Rs. 7,000
Total debtors at the end	Rs. 9,000
Bills receivable	Rs. 2,000
Provision for doubtful debts at the end of the year	Rs. 1,000
Total creditors at the end	Rs. 10,000

Calculate the average collection period.

17. The following are the ratios relating to the activities of

National Trader Ltd.

Debtors' velocity	3 months
Stock velocity	8 months
Creditors' velocity	2 months
Gross profit ratio	25%

Gross profit for the current year ended 31st December amounts to Rs.4,00,000. Closing stock of the year is Rs.10, 000 above the opening stock. Bills receivable amount to Rs.25, 000 and bills payable to Rs. 10,000. Find out

- Sales
- Sundry debtors
- Closing stock
- Sundry creditors

18. The capital of E.Co. Ltd., is as follows

9% preference shares Rs.10 each	Rs. 3,00,000
Equity shares of Rs. 10 each	Rs. 8,00,000
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	11,00,000
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The accountant has ascertained the following information: Profit (after tax at 6%) Rs. 2,70,000; Depreciation Rs. 60,000; Equity dividend paid 20%; Market price of equity shares Rs.40.

You are required to state the following, showing the necessary workings;

- Dividend yield on the equity shares.
- Cover for the preference and equity dividends
- Earnings for equity shares
- Price-earnings ratio

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