

2022

COMMERCE

Paper : DSE-405A

(Financial Analysis)

Full Marks : 40

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

Module - I

Answer *any two* questions.

1. (a) Contrast traditional approach with modern approach to financial analysis.  
(b) State the situations (with the help of an illustration) where a meaningful year-on-year percentage change analysis of comparative financial statements cannot be performed. 6+4
2. (a) The following balances are extracted from the Statement of Profit and Loss and Balance Sheet of P. Ltd. for the year 31st March 2022.

	Amount (₹. in crore)
Sales	3560
Depreciation	115
Internal Expense	5
Tax Expenses	450
Net Income	825
Total Liabilities	1695
Total Equity and Liabilities	3625

- (i) Assuming no preferred stock and using year-end balances, determine Return on Equity of P Ltd. for the year ended 31st March, 2022.
  - (ii) Disaggregate return on equity into its five compounts and comment on the use of financial leverage by the firm.
- (b) The credit period allowed by a firm in 45 days. Discuss the implications of having an average collection period of – (i) 60 days, and (ii) 15 days on credit and collection performance of the firm. 7+3

Please Turn Over

3. (a) The current assets' composition of two firms – X and Y, for the year ended 31st March, 2022 is given below. In addition, it is reported that conversion of inventories into trade receivable takes on an average 50 days for firm X and 45 days for firm Y, while the conversion of receivable into cash takes 40 days for firm X and 50 days for Y on an average. Compare the liquidity position of the two firms based on liquidity index.

Current Assets	Amount (₹. '000)	
	Firm X	Firm Y
Inventories	60,000	40,000
Trade Receivable	40,000	50,000
Cash	20,000	30,000

- (b) S Ltd. has submitted the following projections over the coming five years in respect of a term loan. You are required to work out the yearly debt service coverage ratio and interpret the solvency position of the firm based on average value of the ratio over the five years.

Year	Profit Before Tax for the year (₹. in lakh)	Interest on Term Loan during the year (₹. in lakh)	Repayment of Term Loan in the year (₹. in lakh)	
2022 - 23	4	1.20	8	
2023 - 24	4	0.72	6	
2024 - 25	5	0.36	3	
2025 - 26	5	0.18	2	
2026 - 27	5	0.06	1	5+5

4. Based on the following extracted information from Statement of Profit and Loss, Balance Sheet and Notes to Financial Statements of an automobile manufacturing company, Zen Ltd., for the year ended 31st March 2022, determine cash flows from operating activities of the company under indirect method and interpret the liquidity, solvency and profitability position of the company based on such cash flow ratios.

	Amount (₹.)
Surplus in Profit and Loss Statements	2,60,000
Sale of Investments	2,40,000
Loss on Sale of Investments	25,000
Finance Costs	1,44,000
Depreciation and Amortization Expenses	1,20,000
Write Back of Provisions	30,000
Interest Income	20,000
Dividend Income	15,000
Dividend Paid	1,50,000
Taxes paid	80,000

Congress in Trade Receivables	(50,000)	
Change in Inventories	40,000	
Change in Trade Payables	(75,000)	
Current Liabilities	12,00,000	
Long Term Debt	20,00,000	
Redemption of 7% Preference Share (on 01.04.2021)	9,00,000	
Equity Share Capital (10 each)	30,00,000	
Reserves (including surplus for FY 2021-22)	15,00,000	10

### Module - II

Answer *any two* questions.

5. (a) 'In an efficient market, all investors must agree on the implications of available information for current prices and distribution of future prices of each security' – Identify the condition of market efficiency indicated in the above statement. Explain, in your own words, how the same can lead to market efficiency. If the above condition is not present in any market, can it be called inefficient?
- (b) You have been provided with the following information and has been asked by the Finance Manager of a Financial Analysis Firm to identify the best indicator of corporate sickness :

Ratio	Cut off score
Total Debt / Total Assets Ratio	0.375
Net Income / Total Assets Ratio	0.165

You have been also provided with the following information regarding the validation sample:

	Firms	TD/TA Ratio	NI/TA Ratio	States
Validation Sample	A	0.480	0.28	Failed
	B	0.440	0.22	Failed
	C	0.385	0.17	Non Failed
	D	0.297	0.14	Non Failed
	E	0.250	0.12	Failed

You are required to submit your opinion to the Finance Manager. The opinion must be supported with necessary calculations and reasons. 4+6

6. (a) What is the zone of ignorance in Altman's original model for prediction of corporate failure? Explain its significance.
- (b) Explain with the help of a Table, the success rate of Altman's original model in respect of prediction of corporate failure.

**Please Turn Over**

- (c) A team of researchers want to investigate the market efficiency of Japanese Stock Exchange in the weak form. They decided to apply Augmented Dicky Fuller Test to assess if the daily returns of Nikkei 225 (a major index) exhibit unit root characteristics. Accordingly, they collected the information of daily closing value of Nikkei 225 over the period 01.04.2015 to 31.03.2020 consciously excluding the Covid-19 lockdown period and calculated the percentage price change i.e., returns.

The ADF test statistic obtained was  $-2.753$ . The critical values for 1%, 5% and 10% level are  $-3.965$ ,  $-3.410$ ,  $-3.127$  respectively.

Comment on the efficiency of the market clearly specifying the null hypothesis and the alternative hypothesis. (3+2)+5

7. (a) In a market inefficient in weak form, investors can gain considerably by adopting systematic trading strategies. Keeping this possibility in mind, an investor, Mr. Speculator, decided to apply a 5% Filter Rule in BSE, India. He selected a renowned energy sector share to trade for 50 trading days. The price per share of the selected company were as follows :

Trading Day	Share Price (₹)	Trading Day	Share Price (₹)	Trading Day	Share Price (₹)
1	200	18	221	35	244
2	205	19	216	36	241
3	203	20	220	37	236
4	209	21	213	38	231
5	206	22	204	39	225
6	215	23	208	40	218
7	222	24	215	41	212
8	230	25	220	42	223
9	237	26	219	43	216
10	245	27	226	44	217
11	242	28	231	45	225
12	239	29	228	46	230
13	241	30	238	47	218
14	232	31	241	47	216
15	236	32	249	49	215
16	230	33	246	50	219
17	227	34	248		

Determine the gain or loss from the Filter Rule Strategy. Give your opinion about the level of efficiency of BSE based on the above information.

- (b) Briefly distinguish between Univariate Analysis and the Multivariate Analysis in the context of prediction of Corporate Financial Failure. 6+4
8. (a) Mr. A, an analyst, conducted a Runs Test on FTSE Bursa Malaysia KLCI index, a major market index of Bursa Malaysia and found that the market is efficient in weak form. However, an event study conducted on the same market indicated that the market is not efficient in the semi-strong form. Recently, IHH HEALTHCARE BERHAD, a healthcare company listed in Bursa Malaysia announced a bonus issue for which the record date has been fixed after 30 days. Can Mr. A use his knowledge about the level of market efficiency of Bursa Malaysia to offer his client a winning strategy based on the bonus announcement information? Give your opinion.
- (b) You are given the following Trial Balance in respect of XYZ Ltd as on 31.03.2022 :

Debit Balances	Amount ₹.	Credit Balances	Amount ₹.
Fixed Assets	60,00,000	Equity Share Capital (10)	20,00,000
Inventories	12,50,000	Reserve and Surplus	12,50,000
Sundry Debtors	17,50,000	10% Debenture	20,00,000
Cash and Bank	5,00,000	12% Term Loan	20,00,000
		Creditors for Materials	15,00,000
		Other Outstanding Expenses	7,50,000
	<b>95,00,000</b>		<b>95,00,000</b>

You have also been provided with the following additional information :

Net Sales for the year Rs. 2,60,00,000

Dividend per share Rs. 2.50

Dividend Payout Ratio 60%

Price-Earning Ratio 11

Corporate Tax Rate 30%

Using Altman's original model, calculate Z score of XYZ Ltd. and interpret the results. 4+6