2026

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) Examine the motivations of companies for providing more information voluntarily in published financial statements.

   (b) Common size and trend per cents for the following financial variables of XYZ Ltd. are given below.

	Common size per cents			Trend per cents		
Years	**2026**	**2025**	**2024**	**2026**	**2025**	**2024**
Sales	100	100	100	102.4	99.2	100
Cost of Goods Sold	60	57.2	58.4	102.2	99	100
Expenses	14.8	14.4	15	101.8	98.5	100

   Comment on the change in net income of the company over the three year period under both the forms of analysis. 4+6

2. (a) Explain how and when Diluted EPS is determined.

   (b) What is the significance of interest coverage ratio?

   (c) From the following information, compare the liquidity position of the two firms, P and Q, based on liquidity index. It is reported that the average days to sell inventory is 40 days for firm P and 45 days for firm Q, while average collection period is 40 days for both firms P and Q.

Amount (₹ '000)

	Firm P	Firm Q
Current Assets	2,40,000	2,40,000
Liquid Assets	1,20,000	1,60,000
Cash	40,000	60,000

2½+2½+5

3. (a) Use an appropriate measure of statistic to examine the statistical significance of rankings of the following three variables over the six year period :

Year	Return on Assets (in %)	Quick Ratio (in times)	Debt Service Coverage Ratio (in times)
2020 – 2021	11.5	1.8	1.2
2021 – 2022	9.8	0.8	0.8
2022 – 2023	10.9	1.1	0.8
2023 – 2024	12.8	1.4	1.6
2024 – 2025	14.4	1.4	1.6
2025 – 2026	12.8	1.4	1.6

[Given $\chi^2_{5,0.05} = 11.07$ & $\chi^2_{5,0.01} = 15.09$]

(b) The credit period allowed by a firm is 50 days. Discuss the implications of having an average collection period of 20 days on credit and collection performance of the firm. 8+2

4. Based on the following extracted information from Statement of Profit and Loss, Balance Sheet and Notes to financial statements of a pharmaceutical company for the year ended 31st March 2026, determine cash flows from operating activities of the company under Ind AS 7 and interpret the liquidity and profitability position of the company based on such cash flows.

	Amount (₹)
Surplus in Profit and Loss Statement	5,20,000
Sale of Investments	4,80,000
Loss on Sale of Investments	50,000
Finance Costs	2,88,000
Depreciation and Amortization Expense	2,40,000
Write Back of Provisions	60,000
Interest Income	40,000
Dividend Income	30,000
Dividend Paid	3,00,000
Taxes Paid	1,60,000
Change in Trade Receivables	(1,00,000)
Change in Inventories	80,000
Change in Trade Payables	(1,50,000)
Current Liabilities	24,00,000
Long Term Debt	40,00,000
Redemption of 7.5% Preference Shares (on 01.04.2025)	18,00,000
Equity Share Capital (₹ 10 each)	60,00,000
Reserves (including surplus for FY 25-26)	30,00,000

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Module - II

Answer ***any two*** questions.

5. (a) "A large number of analysts examining the same set of information increases the likelihood that more and more information will be incorporated in security prices and thereby will improve the market efficiency" — Identify the condition mentioned in the above statement. Explain, in your own words, how the existence of the above condition in a capital market can lead to market efficiency. If the above condition is not present in any market, can it be called inefficient?

(b) (i) You are given the Debt/Equity ratio of the estimation sample of the following five firms :

Name of the Firm	Debt / Equity Ratio	Status
A	2.5	F
B	2.0	F
C	1.5	NF
D	1.0	NF
E	0.5	NF

You are required to calculate the optimum cut-off score of the above estimation sample for prediction of corporate failure.

(ii) You are also given the information about the validation sample of the following five firms :

Name of the Firm	Debt / Equity Ratio	Status
F	2.6	F
G	2.0	NF
H	1.70	NF
I	1.5	F
J	1.2	NF

You are required to calculate the percentage of Misclassification of the Validation Sample at the optimum score calculated in the Estimation Sample in (i) above. (1+2+1)+(4+2)

6. (a) Mr. X, a financial analyst of APEX Mutual Fund, has found that the Japanese Stock Market is efficient in the Weak Form and hence technical analysis cannot provide any meaningful strategy to beat the market. So, he now wants to test the market efficiency of the Japanese Stock Market in the semi-strong form. Accordingly, he decided to conduct an event study based on the bonus issue announcements by companies. He selected three companies, namely A Ltd., B Ltd., and C Ltd., that had announced a bonus issue during the last year. He calculated the characteristic lines for a period of three years on a weekly basis up to the fourth week before the announcement. The relationship between the returns of the three companies and that of the selected index is given below :

$R_{A,\,t} = 2.55\% + 1.06\ R_{m,\,t}$

$R_{B,\,t} = 2.30\% + 1.09\ R_{m,\,t}$

$R_{C,\,t} = 2.88\% + 1.03\ R_{m,\,t}$

Where R_A, R_B, R_C, and R_M are the respective returns of the companies and the market.

Mr. X considered a 7-week event window for which the following data is available :

Week	Actual Return on Company Stocks (%)			Market Return (%)
	$R_{A,\,t}$	$R_{B,\,t}$	$R_{C,\,t}$	$R_{m,\,t}$
– 3	17.85	18.06	17.73	15.00
– 2	20.25	20.46	20.13	16.73
– 1	19.38	19.68	19.32	16.32
0	20.15	20.40	19.97	16.35
+ 1	18.75	18.93	18.62	15.08
+ 2	19.64	19.88	19.49	16.58
+ 3	21.77	22.08	21.56	18.23

Conduct the event study and comment on the level of market efficiency. You may approximate the expected return up to 2 decimal places.

[Given, $t_{0.025,2} = 4.31$ and $t_{0.005,2} = 9.925$]

(b) How many ratios were selected and tested by Beaver initially in his model for prediction of corporate failure? Mention the ratios finally selected by Beaver in order of effectiveness.

(c) With the help of a table, show the success rate of prediction of the first two ratios finally selected by Beaver in his model for prediction of corporate failure. 6+2+2

7. (a) You are given the following information in respect of ten firms :

Firm	Debt / TA (X) (%)	RE/TA (Y) (%)	Status
A	24	12	NF
B	20	8	F
C	18	12	NF
D	16	8	F
E	26	18	NF
F	20	14	NF
G	28	16	NF
H	22	8	F
I	16	10	F
J	30	14	F

You are given the following Z score function :

$Z = Y - 0.3x$

You are required to compute the cut off Z score for prediction of corporate failure.

(b) (i) Beta Ltd. is a telecom company listed on the Singapore Stock Exchange, which is considered to be efficient, at least in the semi-strong form. In a major development, the newly appointed accountant of Beta Ltd. has submitted a report recommending an impairment loss, which will result in a downward revision of the value of its PPE. However, the management is of the opinion that such an accounting treatment will considerably reduce the earnings per share of Beta Ltd. and thereby lead to an adverse impact on its share price. Hence, it is better to avoid such treatment. Do you think that the management is correct in their opinion? Justify.

(ii) "Predicting the corporate personality can significantly help an analyst to estimate the intrinsic value of a security, taking into consideration the uncertain business environment." — In this context, briefly discuss the role of an analyst in an efficient market. 6+(2+2)

8. (a) Mr. Y, a qualified CFA, has been appointed by Excel Portfolio Consultants Plc. of the USA. Excel has a considerable client base in Saudi Arabia. In order to guide the investors effectively, Mr. Y has decided to conduct a serial correlation coefficient test on the Tadawul All-Share Index (TASI), the primary benchmark index of the Saudi Exchange. For this purpose, he collected the daily closing index values of TASI and calculated the daily percentage return for 81 trading days. The serial correlation coefficient obtained at lag 1 from the return data is found to be 0.392. Is the Saudi Arabia exchange efficient in the weak form? How will the result of the test help Mr. Y in guiding his clients? [Given, $t_{0.025, 80} = 2.245$ and $t_{0.005, 80} = 2.813$]

What should be the requisite characteristic of the daily returns to ensure the serial correlation coefficient test, instead of a non-parametric test like the Runs Test?

(b) Following information have been obtained in respect of X Ltd. :

EBIT to Total Assets 10%

Sale to Total Assets 2 times

Working Capital to Total Assets 1 : 5

Retained Earnings to Total Assets 1 : 4

Book Value of Debt to Market Value of Equity 2 : 3

You are required to calculate Z score in case of X Ltd., using Altman's function and interpret the result. (4+1+1)+4
