NEW SYLLABUS **524**

Roll No. 522481

Time allowed : 3 hours *Maximum marks : 100*

Total number of questions : 6 *Total number of printed pages : 11*

NOTE : *Answer ALL Questions.*

PART–I

1. Aashna is a Mechanical Engineer from a premier institute based in Kolkata. After working for a decade in the engineering industry, Aashna completes a management development programme from a top-grade Business School. Subsequently, Aashna along with her three colleagues sets up a venture capital fund - GKJ & Co. The aim is to invest in companies that manufacture import substitutes. There is an impetus from the Government to manufacture in India to meet domestic demand and for the world and hence it is felt that any investment made in the manufacturing industry is likely to grow at an above average rate..

GKJ & Co. has raised an initial amount of ₹ 80 crore from investors and is scouting for initial deployment opportunities. One such opportunity is investments in Royden & Co. Royden & Co. is a manufacturer of equipment and tools which are used in dental clinics. This equipment is essentially an import substitute and has potential to be exported as well.

The Balance Sheet of Royden & Co. as on the recent financial year end is given below :

I. Equity and Liabilities	Beginning of financial year (₹ Lakhs)	Ending of financial year (₹ Lakhs)
Share Capital	1,400	1,600
Share Premium	180	220
Retained Earnings	476	616

524

7% Mortgage Loans	-	400
Creditors	138	120
Outstanding Salaries	40	28
Provision for taxation	20	28
Total	**2,254**	**3,012**
II. Assets		
Plant & Machinery	1,240	1,320
Accumulated depreciation on plant and machinery	(740)	(524)
Building	1,900	2,320
Accumulated depreciation on building	(860)	(900)
Land	200	240
Stock	204	192
Debtors	172	152
Prepaid Expenses	14	16
Cash & Bank	124	196
Total	**2,254**	**3,012**

The following additional details are hereunder :

(i) Plant costing ₹ 320 lakhs (accumulated depreciation ₹ 296 lakhs) was sold during the year for ₹ 24 lakhs

(ii) Building was acquired during the year at cost of ₹ 420 lakhs. In addition to cash payment of ₹ 20 lakhs mortgage of ₹ 400 lakhs was raised for balance.

(iii) Dividend of ₹ 160 lakhs was paid during the year.

(iv) A sum of ₹ 278 lakhs was transferred to Provision for tax account.

Royden & Co. wants to setup a plant to manufacture advanced dentistry equipment. The said equipment is imported from USA. The Indian Government is giving benefits in terms of tax holidays for such types of business. It is estimated that turnover of ₹ 800 lakhs could be generated at a profit in the first year of operations. The new business setup requires a significant investment. Royden & Co. have reached out to GKJ & Co. for the first round of funding. GKJ & Co. has requested Royden & Co. for some further information before investing. Royden & Co. is requested to prepare profitability projections under different scenarios. The scenarios are given below :

	Base Case (Rs. Lakhs)	Best Case	Worst Case
Revenues	800	Sales higher by 37.5%	Sales decline by 25%
Variable Cost 60% of sales	480	56% of sales	65% of sales
Fixed Cost	80	60	100
Depreciation	100	100	100
Income Tax	Rs.40 lakhs	Same income tax rate as base case	Same income tax rate as base case

(*a*) Prepare cash flow statement (indirect method) of Royden & Co. for the current financial year with the available details.

(*b*) Calculate Return on Equity and Return on Assets of Royden & Co.

(*c*) Calculate profit under different scenarios.

(*7+3+5=15 marks*)

2. (*a*) Oreon Ltd. grants 10,000 employee stock options on 1.4.2021 at ₹ 400. The market price of the share is ₹ 1,600. The vesting period is 2.5 years and the maximum exercise period is one year.

- 3,000 unvested options lapses on 1.5.2023.
- 6,000 options are exercised on 30.6.2024.
- 1,000 vested options lapses at end of exercise period.

Pass journal entries and show necessary working notes.

(*7 marks*)

3,20,

SP

(b) Divya Ltd. purchased machinery worth ₹ 1,20,000 and building worth ₹ 2,00,000 from Tara Ltd. for consideration other than cash at an agreed purchase consideration of ₹ 3,00,000 to be satisfied by the issue of 3,000, 12% debentures of ₹ 100 each.

Show the necessary journal entries in the books of Divya Ltd.

(3 marks)

(c) Shiv Shakti Ltd. issued 20,000, 13%, Convertible Debentures of ₹ 100 each on 1st April, 2024. The debentures are due for redemption on 1st July, 2024. The terms of issue of debentures provided that they were redeemable at a premium of 5% and also conferred an option to the debentureholders to convert 20% of their holding into equity shares having a nominal value of ₹ 10 per share at a price of ₹ 15 per share. Debentureholders holding 2,500 debentures did not exercise the option. Calculate the number of equity shares to be allotted to the Debentureholders exercising the option to the maximum.

(5 marks)

3. (a) The summarised Balance Sheets of H Ltd. and S Ltd. as on 31st March, 2025 is given below :

Equities and Liabilities	H Ltd.	S Ltd.
Share capital (Face value of ₹ 10 per share)	30,00,000	6,00,000
Reserves	4,80,000	1,80,000
Profit and Loss Account	3,60,000	2,40,000
	38,40,000	**10,20,000**
Assets		
Sundry Assets	30,00,000	10,20,000
48,000 shares in S Ltd.	8,40,000	
	38,40,000	**10,20,000**

S Ltd. had reserves of ₹ 1,80,000 when H Ltd. acquired shares in S Ltd. The P & L balance of S Ltd. was fully earned after the acquisition of shares by H Ltd. S Ltd. decided to issue bonus shares out of post-acquisition profit in the ratio of 1 share for every 10 shares held.

Calculate the cost of control before and after issue of bonus shares.

(*5 marks*)

(*b*) Sangam Ltd. came up with public issue of 3,00,000 Equity Shares of ₹ 10 each at ₹ 15 per share. P, Q and R took underwriting of the issue in the ratio of 3 : 2 : 1 with the provisions of firm underwriting of 20,000, 14,000 and 10,000 shares respectively.

Applications were received for 2,40,000 shares excluding firm underwriting.

The number of applications from public were received as under :

P – 60,000

Q – 50,000

R – 60,000

Compute the liability of each underwriter as regards the number of shares to be taken up assuming that the benefit of firm underwriting is not given to individual underwriters.

(*5 marks*)

(c) Calculate Trade Receivables turnover ratio and average collection period from the following information :

Total Revenue from operations	₹ 78,00,000
Revenue from sales on credit	65%
Trade receivables at beginning of financial year	₹ 5,00,000
Trade receivables at end of financial year	₹ 7,00,000

Assume 365 days in the year for calculation of average collection period.

(5 marks)

Attempt all parts of either Q. No. 4 or Q. No. 4A

4 (a) A new process for development of Active Pharmaceutical ingredients (APIs) is developed by Prof. Shastri. The process is subsequently patented. The APIs are used to manufacture medicines for cure of cardiac diseases. The patent is bought by a pharmaceutical company Ratna & Co. The patent was bought for a consideration of ₹ 45,00,00,000. The deal involves payment of ₹ 15,00,00,000 to Prof. Shastri and allotment of shares of ₹ 10 each at a discount of ₹ 2 per share for balance consideration of ₹ 30,00,00,000.

Prepare necessary journal entries in the books of Ratna & Co.

(5 marks)

(b) The following data is given for two similar companies :

	A Ltd.	B Ltd.
Net profit margin	23%	20%
Asset turnover ratio	1.25	1.50
Financial Leverage	1.50	1.40

(i) Calculate Return on Equity for A Ltd. and B Ltd.

(ii) Which company has higher Return on Equity ?

(iii) What is the reason for higher return on equity ?

(3+1+1=5 marks)

① DIR
① CAF
③ JIGL) SBIL

(c) Calculate material consumed in production and payment for the inventory from the given figures. Assume entire purchase is on credit basis :

Particulars	₹
Inventory in the beginning	80,000
Credit Purchases	3,20,000
Inventory in the end	76,000
Trade payables in the beginning	28,000
Trade payables at the end	29,000

(5 marks)

OR (Alternate question to Q. No. 4)

4A. (*i*) Financial Forecasting is the start of budgeting process. Elucidate.

(*ii*) Write a short note on "Role of Escrow Account in buyback of shares".

(*iii*) What is the significance of debt service coverage ratio ?

(5 marks each)

PART–II

5. Vishal is a Mechanical Engineer with over three decades of experience. After completion of his graduation, he has worked in the global oil and gas industry for various companies as an employee. Given his vast experience in the energy sector; Vishal is often invited to various conferences on the oil and gas industry. One such conference was on "Areas of opportunities common to all include the India growth story" given the demographic dividend and energy independence.

Vishal recognizes the huge potential of the oil and gas sector in India and sets up an engineering and construction company M/s. Mid-Stream & Co., based in Kolkata.

The first bid for the project is a gas pipeline for a Government Company. The initial outlay for the project is ₹ 5,75,00,000.

The duration of the project is five years. The expected cash inflows from the project are given below :

Year	₹
1	1,75,00,000
2	1,95,00,000
3	1,90,00,000
4	2,85,00,000
5	2,40,00,000

The acceptable rate of return for M/s. Mid-Stream & Co. is 15%.

Anuja, CFO of M/s. Mid-Stream & Co. recommends a risk premium of 3% over and above the acceptable rate of 15% given the risky nature of the project.

Vishal estimates duration to recover the initial cost of the project. Anuja mentions that it would be prudent to use discounted cash flows for such calculations. A risk management perspective also would involve a more conservative approach in terms of Cash Flow estimation. Anuja mentions that the firm needs to make more conservative estimates of cash flow using the Certainty Equivalent technique with a discount rate of 15% to be used.

Cash Flows from Government project with Certainty Coefficients :

Year	₹	Certainty Coefficients
1	1,75,00,000	0.90
2	1,95,00,000	0.88
3	1,90,00,000	0.85
4	2,85,00,000	0.81
5	2,40,00,000	0.65

Calculate :

(*i*) NPV of gas pipeline bid for the Government Company. Give your recommendation regarding acceptability of the project.

(7 marks)

(ii) Payback period, post payback profitability index and discounted payback period.

(7 marks)

(iii) NPV of the Government project, after application of Certainty Coefficients.

(6 marks)

Present Value Factors are given below :

Years	0	1	2	3	4	5
Discount rate						
15%	1	0.87	0.76	0.66	0.57	0.50
18%	1	0.85	0.72	0.61	0.52	0.44

Attempt all parts of either Q. No. 6 or Q. No. 6A

6. (a) Win Some Ltd. is contemplating issue of shares for an expansion project :

Market Capitalization Rate	15%
Number of shares outstanding at the beginning of FY	1,00,000
Share price at the beginning of FY	₹ 120
Dividend expected to be declared	₹ 2 per share
Expected net income	₹ 50,00,000
New investment	₹ 1,00,00,000

Assuming that Modigliani Miller's approach (theory of irrelevance of dividend to market value) is followed, you are required to calculate :

(i) Total number of shares at the end of FY.

(ii) The market value of the shares at the end of FY.

(3+2=5 marks)

(b) A new project requires outlay of ₹ 800 lakhs. The amount maybe raised through issue of equity shares of ₹ 400 each or by issuing equity shares of value ₹ 600 lakhs and loan of ₹ 200 lakhs at 14% interest.

Assuming income tax rate at 25%, calculate EBIT levels that would keep equity investors indifferent to the two options.

(5 marks)

(c) Rita wants to invest her savings in certain annuity plans. Amount to be invested is ₹ 2,00,000 per annum for next five years. The investment is expected to compound at 10% p.a. Calculate future value :

(i) Assuming investments are made at the end of year.

(ii) Assuming investments are made at the beginning of year.

(2+3=5 *marks*)

(d) Sun Star Ltd. is a listed company whose share prices for last 14 trading session are given below. Calculate Relative Strength Index :

Trading session number	Share price (₹)
1	334
2	344
3	335
4	312
5	334
6	348
7	314
8	309
9	316
10	339
11	347
12	317
13	333
14	340

(5 *marks*)

524

OR (Alternate to Q. No. 6)

6A. (*i*) Write a short note on common size financial statements.

(*ii*) What is the rationale of stable dividend policy ?

(*iii*) How can financial leverage lead to an improvement in EPS ?

(*iv*) What are the safety stocks in terms of working capital management ?

(*5 marks each*)

——— o ———