

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA  
PGDM, PGDM(SM), PGDM(M)  
FOURTH TRIMESTER (Batch 2020-22)  
END TERM EXAMINATIONS, OCTOBER 2021  
Set-I

Course Name	Investment Management	Course Code	FIN402
Max. Time	2 hours	Max. Marks	40

Roll number

1. This question paper has 4 questions with each question on a separate excel sheet in this file
2. Solve each question below the data provided duly marking beginning and end of the answer
3. Be brief and to the point in the response
4. State assumptions made, if any
5. Answer all questions
6. Marks are indicated against each question

Q No.	1	2	3	4	Total
Maximum marks	10	16	8	6	40
Marks obtained					0

Q 1

10 marks

REC Ltd has issued 7.43% coupon annual interest paying bond due for maturity on 05/11/2035 with redemption at par

Other features of the bond follow:

Nature	Non-Covertible
Years till Maturity	15
Nature of Issue	Public Issue
Settlement date	10/29/2021
Face Value	Rs1000
Amount Issued	Rs186 crores
Coupon Rate	7.43% p.a.
Maturity Date	11/5/2035
Frequency	Annual
Current Market Price	Rs1315
Rating	CRISIL AAA

*You have been approached by Ms Aalia Bhat, a prospective investor, for an advice whether or not to invest in this bond. Based upon the parameters given below analyse the values of these parameters and discuss meaning and implication of each term for consideration of Ms Bhat.*

a	Price of the bond at expected rate of return of 5%
b	YIELD TO MATURITY at current market price
c	MACAULAY'S DURATION
d	MODIFIED DURATION
e	CONVEXITY

As equity analyst of Fairgrowth Investments you have to conduct Fundamental Analysis of Ambuja Cements for the benefit of your clients. On analyzing the economy, industry and company's performance you have come to the following conclusions:

- Gross Sales will grow at 5% over last five years' average
- The other income is likely to decline by 15% over last five years' average
- All the expenses are expected to decline by 5% over the last five years' average except for Depreciation which is forecasted at Rs. 550 Crore for the year 2021
- There is no change in Equity & additional Fixed Assets of Rs. 290 Crore are being acquired during 2020-21
- Current & other assets shall increase by 5% over previous year 2020.
- Long Term Liability will go up by Rs. 28 Crore over previous year. Interest on long term liability is @7% on average closing balance for current year & preceding year.
- No change in Investments whereas Non Current Assets will increase by 3% over previous year.
- Current & other liabilities are forecasted to increase by 4% over preceding year
- Short Term Provision will increase by 6 Crore over preceding year
- The net tax rate is 25% for the company for FY 2020-21
- Closing cash for end Dec 21 is estimated to be Rs 3817Crores

Estimate the Profit and Loss statement for Financial Year ending 31st December 2021 based on your perception about the company, as listed above.

Formulate intrinsic value of the Company with 5% as margin of error as on 31.12.2021 assuming the earnings multiplier to be 38.85.

### Ambuja Cements

#### Balance Sheet

Rs. In Crore

For the Year ending	16-Dec	17-Dec	18-Dec	19-Dec	Dec 20
Equity Share Capital	397	397	397	397	397

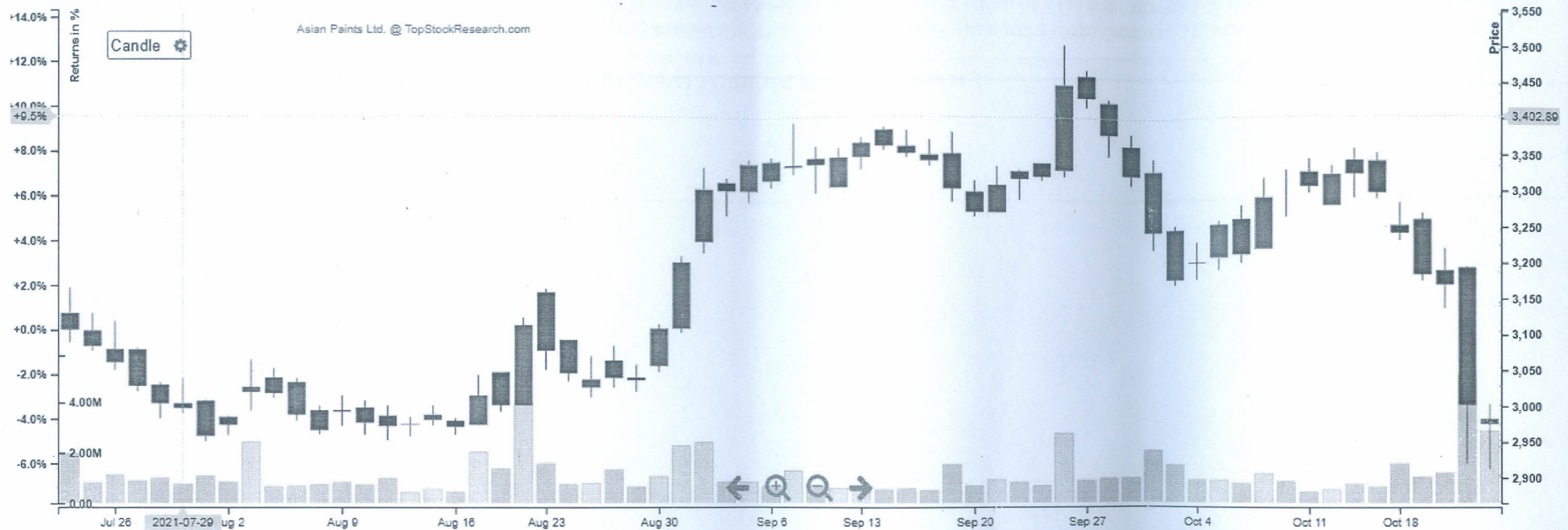


Reserves and Surplus	18960	19576	20615	21808	19919
Long Term Borrowings	564	527	459	338	622
Trade Payables	815	1047	1109	936	881
Other Current Liabilities	2528	2993	2515	3426	3659
Short Term Provisions	88	87	91	85	4
<b>Total Capital And Liabilities</b>	<b>23353</b>	<b>24627</b>	<b>25187</b>	<b>26991</b>	<b>25481</b>
<b>ASSETS</b>					
Fixed Assets	6262	6119	6274	6921	7805
Non-Current Investments	11845	11845	11814	11789	11792
Other Non-Current Assets	1033	1152	1359	1432	1453
Inventories	938	1053	1278	954	747
Trade Receivables	396	308	470	513	192
Cash And Cash Equivalents	2579	3497	3330	4699	2924
Other Current Assets	302	653	662	681	568
<b>Total Assets</b>	<b>23353</b>	<b>24627</b>	<b>25187</b>	<b>26991</b>	<b>25481</b>

#### Profit and Loss Statements

<b>Income</b>					
Sales Turnover	9197	10457	11357	11668	11372
Other Income	539	425	320	379	251
<b>Total Income</b>	<b>9736</b>	<b>10882</b>	<b>11677</b>	<b>12047</b>	<b>11623</b>
<b>Expenditure</b>					
Raw Materials	1381	1574	1728	1782	1642
Power & Fuel Cost	1832	2233	2546	2586	2252
Employee Cost	591	661	680	673	669
Selling and Admin Expenses	76	76	53	85	64
Miscellaneous Expenses	3654	4036	4532	4350	3985
Total Expenses	7534	8580	9538	9476	8611
PBDIT	2201	2303	2139	2571	3012
Interest	74	107	82	84	83
PBDT	2127	2195	2056	2487	2929
Depreciation	849	573	548	544	521
Profit Before Tax	1278	1623	1508	1944	2407
Tax	346	373	21	415	617
<b>Net Profit</b>	<b>932</b>	<b>1250</b>	<b>1487</b>	<b>1529</b>	<b>1790</b>
Shares in issue (lakhs)	19,856.45	19,856.45	19,856.45	19,856.45	19,856.45
<b>Earning Per Share (Rs)</b>	<b>4.69</b>	<b>6.29</b>	<b>7.49</b>	<b>7.7</b>	<b>9.02</b>
Market Price	240	234	237	148	305
PE Ratio	51.17	37.20	31.64	19.22	33.81
Market Price	240	234	237	148	305

Daily price candlesticks chart of Asian Paints as on 22nd Oct 2021 is given below:



Identify the following Candlestick patterns in the given graph, explaining the features and implication on price behaviour as justified by the chart:

- 1 Gap
- 2 Doji
- 3 Paper Umbrella
- 4 Spinning Top

Q 4

6 marks

Analyzing portfolios of Premier, Growth and Classic Mutual Funds you find that Premier Fund has a mean return of 14% p.a., standard deviation of 15% and beta value of 0.9, Growth fund has a mean return of 16% p.a., standard deviation of 28% and beta value of 1.6 while Classic Fund has a mean return of 15% p.a., with standard deviation of 21% and beta value of 1.4. Prevailing risk free rate is 5.25% p.a.

Examine the performance of each fund's portfolio and determine the rank to be assigned using the criteria of

- a. Sharpe Index
- b. Treynor Index
- c. Jensen's Alpha