

**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**  
**PGDM, PGDM (SM), PGDM(M)**  
**FOURTH SEMESTER (Batch 2020-22)**  
**END TERM EXAMINATION October 2021**  
**Set-2**

<b>Course Name</b>	<b>Investment Management</b>	<b>Course Code</b>	<b>FIN 402</b>
<b>Max. Time</b>	<b>2 hours</b>	<b>Max. Marks</b>	<b>40</b>

<b>Roll number</b>	
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- 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*

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

Q 1

10 marks

Features of IRFC Corporate bond are given below

Issuer	Indian Railway Finance Corporation
Bond Type	Vanilla
Issue Date	1st Nov. 2019
Maturity Date	31st Oct. 2029
Coupon Rate	7.25%
Face Value (Rs)	100
Credit Rating	AAA
Interest payment	Yearly

*Analyse the investment in this bond by using following parameters as criteria, explaining meaning and implication of each parameter . Your expected rate of return on such bonds is 5.25% per annum.*

a	Price of the bond	
b	YTM if Market Price	
c	MACAULAY'S DURATION	
d	MODIFIED DURATION	
e	CONVEXITY	

Sapna Kundra has been holding 1000 Shares of Tata Motors Ltd. DMR

She has sought your advice as an Equity Researcher whether she should hold, sell or buy more shares of value of the Company as at 31.3.2022.

For forecasting intrinsic value as on 31st March 2022 you have assessed economic, industry and company following estimates:

- Gross Sales will grow at 8% over last five years' average
- The other income is likely to go up by 5% over last five years' average
- All the expenses are expected to increase by 4% over the last five years' average except for Depreciation of Rs. 3800 Crore for the year 2021-22
- There is no change in Equity & additional Fixed Assets of Rs. 200 Crore are being acquired during the year
- Current & other assets shall increase by 5% over previous year.
- Long Term Liability will go down by 3% over previous year. Interest on long term liability is Rs. 250 Crore
- No change in Investments and other non-current assets
- Cash & Bank balance as at 31.03.2022 is estimated at Rs. 3245 Crore
- Current & other liabilities are forecasted to increase by 4% over preceding year
- Short Term - Current & other liabilities will decrease by 2% over preceding year
- The net tax rate is 25% for the company
- No Dividend is planned for the year.

**Estimate intrinsic value of share as on 31. March 2022 with 5% margin of error based on estimates.**

**Explain your opinion to Sapna Kundra as to whether she should sell, hold or buy shares of the company.**

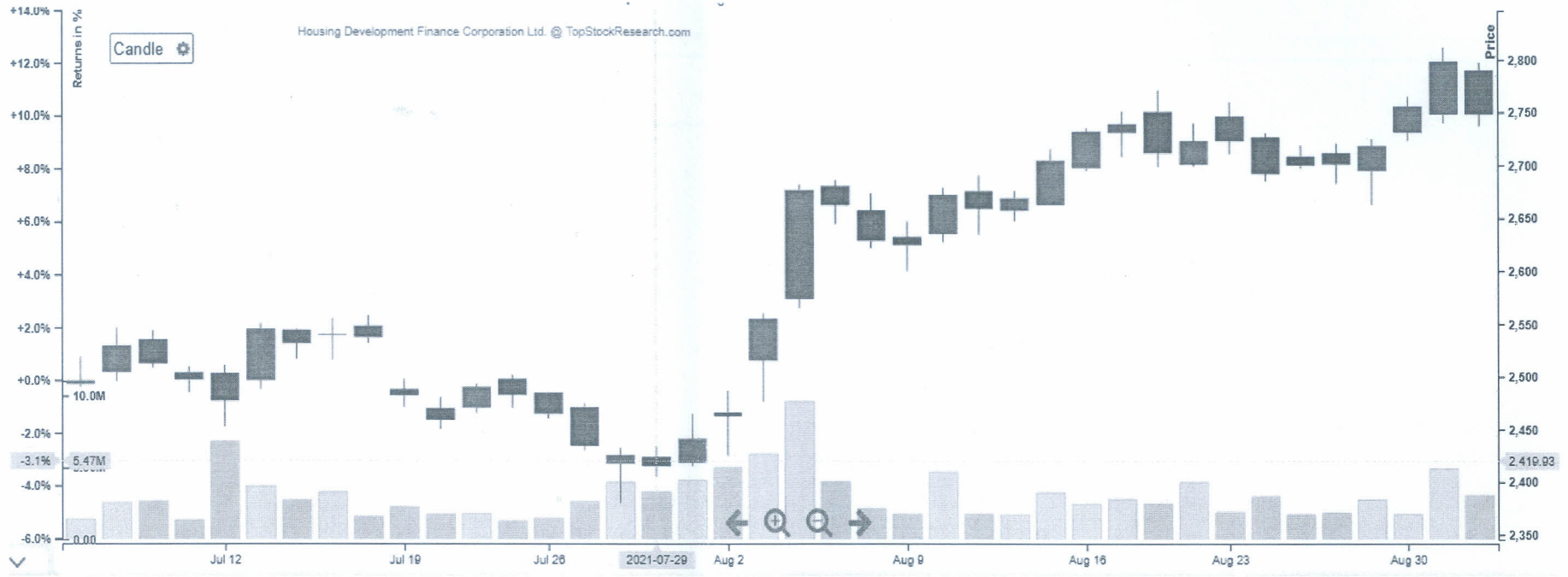
<b>Tata Motors Ltd. DMR</b>					
<b>Balance Sheet</b>					<b>Rs. Crore</b>
<b>Year Ending</b>	<b>31.03.17</b>	<b>31.03.18</b>	<b>31.03.19</b>	<b>31.03.20</b>	<b>31.03.21</b>
Equity Share Capital	679	679	679	720	766
Reserves and Surplus	20,483	19,492	21,483	17,668	18,290
Long Term Borrowings	16,177	14,822	15,806	18,391	19,752
Short Term Borrowings	5,159	3,100	3,618	6,121	2,543
Trade Payables	7,083	9,411	10,409	8,102	8,115
Other Current Liabilities	8,820	10,845	7,766	10,180	14,551
Short Term Provisions	477	863	1,149	1,407	1,044
<b>Total Capital And Liabilities</b>	<b>58,878</b>	<b>59,212</b>	<b>60,910</b>	<b>62,590</b>	<b>65,060</b>
Fixed Assets	28,044	26,800	28,573	29,703	29,430
Non-Current Investments	15,250	14,405	15,577	15,869	16,241
Other Non-Current Assets	2,827	3,036	3,530	3,449	3,535
Current Investments	2,437	1,821	1,433	885	1,578
Inventories	5,553	6,352	4,662	3,832	4,552
Trade Receivables	2,128	3,480	3,251	1,978	2,088
Cash And Cash Equivalents	543	936	1,507	3,764	4,504
Other Current Assets	2,096	2,383	2,377	3,109	3,133

<b>Total Assets</b>	<b>58,878</b>	<b>59,212</b>	<b>60,910</b>	<b>62,590</b>	<b>65,060</b>
<b>Profit &amp; Loss Account</b>					
<b>Year ended</b>	<b>Mar '17</b>	<b>Mar '18</b>	<b>Mar '19</b>	<b>Mar '20</b>	<b>Mar '21</b>
<b>Income</b>					
Net Sales	44,316	58,831	69,203	43,928	47,031
Other Income	900	-239	2,168	-1,920	2,294
Total Income	45,216	58,592	71,371	42,009	49,325
<b>Expenditure</b>					
Raw Materials	32,251	42,482	51,089	32,313	35,919
Power & Fuel Cost	483	545	599	429	372
Employee Cost	3,764	3,967	4,273	4,384	4,213
Other Manufacturing Expenses	454	475	572	830	908
Selling and Admin Expenses	848	720	736	847	444
Miscellaneous Expenses	5,156	6,492	6,850	5,053	3,752
Total Expenses	42,958	54,681	64,119	43,857	45,608
PBDIT	2,258	3,911	7,252	-1,848	3,718
Interest	1,569	1,744	1,794	1,973	2,359
PBDT	689	2,167	5,459	-3,821	1,359
Depreciation	3,037	3,102	3,099	3,375	3,682
Profit Before Tax	-2,348	-935	2,360	-7,196	-2,323
Tax	76	88	378	162	83
Net Profit	-2,424	-1,023	1,982	-7,359	-2,406
Shares in issue (lakhs)	33,959	33,959	33,959	35,975	38,288
Earning Per Share (Rs)	-7.14	-3.01	5.84	-20.46	-6.28
Face Value	2	2	2	2	2
Current Market Price as on date	150.80				

Q 3

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

8 marks



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

- 1 Marubozu
- 2 Doji
- 3 Gap
- 4 Paper Umbrella

Q 4

6 Marks

Discuss meaning, relevance & applicaion of

- a) Security Market Line
- b) Efficient Frontier
- c) Portfolio Performance Analysis