JAIPURIA INSTITUTE OF MANAGEMENT
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JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM (G/SM/M)

SIXTH TRIMESTER (Batch 2019-21)

END-TERM EXAMINATIONS, MAY 2021

Reappear

Course Name	Fixed Income Securities	Course Code & Title	**FIS – FIN 601**
Max. Time	**2 hours**	Max. Marks	**40 Marks**

INSTRUCTIONS:

- Answer in your own language and be precise else you will lose time.
- This is an open book exam and Answers to the questions will be plagiarism checked on assignment basis in Moodle with limit of 10%. Every additional 10% will attract a penalty of 5 marks.
- Use MS Excel spreadsheet to write your answers of theory as well as applications part. Save and submit the workbook as per your Roll Number and Name or as instructed otherwise by the exam instructor.
- This Question Paper Contains two parts. Both parts and all questions from both parts are compulsory. All parts of a question should be answered in one place.
- No need to use MS Word or any other editor for writing theory or application related answers.
- There is no negative marking.
- Use of calculators/MS Excel is allowed.

PART A – FIXED INCOME THEORY [25 MARKS]

Please read the following article and answer the questions that follow: [5X5=25 Marks]

"India joins the money printers."

That's how an ING Bank research note describes the Reserve Bank of India's explicit commitment to buy 1 trillion rupees ($14 billion) in government bonds this quarter. Since this new move has been given a fancy name — Government Securities Acquisition Program — it will probably both extend and expand.

Large-scale bond-buying and money-printing may result in a glut of rupees, causing them to depreciate against the dollar. Which is why the foreign-exchange market pushed the dollar 1.56% higher against the rupee, one of the largest one-day moves in the past decade.

Is this the start of quantitative easing? Robert Carnell, ING's head of Asia-Pacific research, thinks so: "QE, once the preserve of reserve currency central banks, is now becoming pretty mainstream," he writes. With its new program, India has "joined the ranks of Indonesia and the Philippines in Asia who have dabbled with this policy."

Bond traders aren't all so sure. The yardstick for a monetary bazooka is Mario Draghi's "whatever it takes" moment at the European Central Bank in the summer of 2012, or Haruhiko Kuroda's bold 2013 campaign at the Bank of Japan to end 15 years of deflation. RBI Governor Shaktikanta Das's maneuver isn't in the same league. It's just a formal announcement of open market bond purchases the authority does on an ad hoc basis anyway. How can you get excited about $14 billion of debt-buying this quarter, when the preceding three months' total was $20 billion?

Rather than chalk up the program as full-fledged quantitative easing, traders like Arvind Chari, chief investment officer at Quantum Advisors Pvt., are more comfortable calling it a yield-curve flattener, which should help the central bank manage a bloated government borrowing program. The benchmark 10-year yield has indeed shifted lower over the past two trading sessions.

The fixed-income folks probably have it right: This isn't the start of a new monetary policy regime. As for the unusually large move in the currency, Mumbai-based finance professor and Observatory Group analyst Ananth Narayan has a simple explanation. The carry trade in the Indian rupee has been getting crowded, he says.

These are bets where speculators borrow a low-yielding currency, such as the dollar, to buy a high-yielding emerging market currency. As long as what they're buying (the rupee in this case) doesn't drop like a stone, they come out ahead. A fall like Wednesday's would scare them off and lead to an unwinding of positions, which in Narayan's calculations had swelled in just five months through February to $40 billion.

1. "India joins the money printers."

Explain why it is said that India joins the money printers. [5 Marks]

2. Critically evaluate the utility of quantitative easing (QE) in the current market scenario prevailing in India. [5 Marks]

3. "Which is why the foreign-exchange market pushed the dollar 1.56% higher against the rupee, one of the largest one-day moves in the past decade." Argue with reasons why the Dollar appreciated against the Rupee in the scenario mentioned in the case. [5 Marks]

4. Comment on the likely impact of G-SAP program on the Valuation of Bond Portfolio and Modified Duration of the Bind Portfolio of Banks. Give reasons for both.

[5 Marks]

5. "Rather than chalk up the program as full-fledged quantitative easing, traders are more comfortable calling it a yield-curve flattener,".
Comment whether it is correct to call the strategy taken up by RBI a yield-curve flattener. Identify whether the yields flattened or not after this announcement by RBI.
[5 Marks]

PART B – FIXED INCOME APPLICATIONS [15 Marks]

1. Please use the following data of Bond Portfolio "A" to answer the questions that follow:

S No	Coupon Rate	Maturity Date	YTM	Total value of Bond Purchased	Face Value/Redemption value per bond
1	7%	30-Jun-32	7.50%	300	100
2	8%	31-Dec-25	7.80%	200	100
3	8.5%	31-Jan-40	7.20%	400	100

Assume Semi-Annual Coupons, 30/360 Basis, today's date as the Settlement/ Valuation date and Redemption Value/face value of each Bond in the portfolio as Rs.100/-

A) Compute using MS-Excel
   a) Bond Portfolio Value
   b) Modified Duration of the Bond Portfolio [4 Marks]

B) If YTM increases by 10 bps flat across the curve, determine the likely impact on Bond portfolio. [2 Marks]

C) Comment on the nature of term structure of interest rates. [1 Marks]

2. Explain how you will hedge a short bond portfolio using:
   a. Interest Rate Futures
   b. Interest Rate Forwards
   c. Interest Rate Swap
   d. Interest Rate Option

Your answer for each question should not exceed three lines. [2X4=8 Marks]