



JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM (G/SM/M)

SIXTH TRIMESTER (Batch 2019-21)

END-TERM EXAMINATIONS, MAY 2021

Set-II

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]

The RBI's decision on Wednesday to step up purchase of government securities (G-Secs) under the G-SAP led to the yield on the benchmark 10-year bond falling below 6 per cent. This signals that the market expects the Reserve Bank of India (RBI) to ensure that interest rate in the economy will continue to be moderate in order to help support economic activity and the elevated borrowing programme of the government.

The RBI's decision to buy Rs 35,000 crore worth of bonds in May would help the market in absorbing a portion of the Rs 1.16 lakh crore of market borrowings by government during the month.

The yield on the 10-year benchmark 5.85 per cent, 2030 bond fell by 0.62 per cent and closed below the psychological 6 per cent at 5.978 per cent on Wednesday from 6.01 per cent the previous day. The 10-year G-Sec has closed under 6 per cent for the first time in nearly three months (since February 12).

In April, the RBI launched the G-Sec secondary market acquisition programme (G-SAP) under which it said it will buy Rs 1 lakh crore worth of bonds in the April-June quarter. It has so far bought Rs 25,000 crore worth of G-Secs.

"G-SAP has engendered a softening bias in G-Sec yields which has continued since then. Given this positive response from the market, it has been decided that the second purchase of government securities for an aggregate amount of Rs 35,000 crore under G-SAP 1.0 will be conducted on May 20. With system liquidity assured, the RBI is now focusing on increasingly channelising its liquidity operations to support growth impulses, especially at the grassroot level," RBI Governor Shaktikanta Das said Wednesday, while unveiling fresh set of measures.

Ever since the RBI announced its G-SAP plan on April 7, yields have been softening and fallen from levels of around 6.15 to under 6 per cent over the last month.

Experts say that a structured purchase programme has calmed investor nerves and helped reduce the spread between the repo rate and the 10-year government bond yield. A fall in yield is also better for equity markets because money starts flowing out of debt investments to equity investments.

"The additional measures announced by the RBI coupled with the announcement of the second tranche of the G-SAP 1.0 program is likely to be beneficial to alleviate the constraints faced by a number of stakeholders in the economy from the financing side. The markets have also viewed these measures positively with the BSE Sensex rising, while the bond markets have seen additional buying reflected by decline in G-Sec yields," said Madan Sabnavis, chief economist, Care Ratings.

Movement in yields, depending on the trajectory and trend of interest rates, can result in capital gains or losses for investors. If an individual holds a bond carrying a yield of 6 per cent, a rise in bond yields in the market will bring the price of the bond down. On the other

hand, a drop in bond yield below 6 per cent would benefit the investor as the price of the bond will rise, generating capital gains.

The RBI has been aiming to keep yields lower as that reduces borrowing costs for the government while preventing any upward movement in lending rates in the market. The yield had fallen to a low of 5.74 per cent on July 10 last year as a series of interest rate cuts announced by the central bank to manage the impact of Covid-19 on the economy led to a sharp softening of interest rates.

1. "The RBI's decision on Wednesday to step up purchase of government securities (G-Secs) under the G-SAP led to the yield on the benchmark 10-year bond falling below 6 per cent."

Explain the reasoning behind the yields falling down due to RBI's decision mentioned here. [5 Marks]

2. "With system liquidity assured, the RBI is now focusing on increasingly channelising its liquidity operations to support growth impulses, especially at the grassroot level, RBI Governor Shaktikanta Das said."

Interpret this statement and mention the key message underlying this statement.

[5 Marks]

3. "Movement in yields, depending on the trajectory and trend of interest rates, can result in capital gains or losses for investors".

Explain with reasons that both gain and losses are possible for investors in the scenario mentioned here. [5 Marks]

4. Justify RBI's decision to step up purchase of Government Securities under the G-SAP program. [5 Marks]

5. "Experts say that a structured purchase programme has calmed investor nerves and helped reduce the spread between the repo rate and the 10-year government bond yield. A fall in yield is also better for equity markets because money starts flowing out of debt investments to equity investments."

A fall in yield may result in increase in equity investments. Analyze with proper reasons. [5 Marks]

PART B – FIXED INCOME APPLICATIONS**[15 Marks]**

1. Please use the following data of Bond Portfolio “C” 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-35	7.20%	100	100
2	8%	31-Dec-26	6.70%	200	100
3	6%	31-Jan-42	7.00%	300	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 decreases by 10 bps flat across the curve, determine the likely impact on Bond portfolio. [2 Marks]
- C) Identify the nature of term structure of interest rate in this case. [1 Marks]
2. Explain how you will hedge the above long bond portfolio “C” using:
- a. Interest Rate Options
 - b. Interest Rate Futures
 - c. Interest Rate Forwards
 - d. Interest Rate Swap

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

