INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

25th June 2019

Subject SA7 – Investment and Finance

Time allowed: 3 Hours 15 Minutes (14.45 - 18.00 Hours)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. ***Please read the instructions inside the cover page of answer booklet and instructions to examinees sent along with hall ticket carefully and follow without exception.***
2. ***The answers are expected to be India Specific application for the syllabus and corresponding core reading. However, substantially the core reading material is still taken from material supplied by Actuarial Education Company which is meant for UK Fellowship examination. The core reading also contains some material which is India Specific, mostly the IRDA regulation. In view of this, it should be noted that focal point of answers is expected to be India Specific application. However, if application specific to any other country is quoted in the answer the candidate should answer the question with reference to Indian environment.***
3. ***Attempt all questions, beginning your answer to each question on a separate sheet.***
4. ***Mark allocations are shown in brackets.***
5. ***Please check if you have received complete Question Paper and no page is missing. If so, kindly get new set of Question Paper from the Invigilator.***

AT THE END OF THE EXAMINATION
Please return your answer book and this question paper to the supervisor separately. You are not allowed to carry the question paper in any form with you.

Q. 1) You are an investment consultant working in a large actuarial consulting firm. X Ltd is in the property broking business. It is the owner of a popular portal called "Ghar.com" that connects potential buyers of property with sellers, effectively acting as a sales intermediary and earning commissions for the transaction. They work across the spectrum of new projects (ready for sale and under construction) and existing projects (resale properties). The average commission rate is 3.0% of the total transaction value. The market where X Ltd operates has many e-commerce players joining the fray in the recent past. The focus is more on primary property sales (from builders to first time owners).

The success of X Ltd. has been its strong focus across both important phases of the property transaction value chain viz., matchmaking (connecting the right buyer to the right seller) and fulfillment of the potential match (covering discussions with the builder/developer, loan support and help with legal/paperwork etc.)

For projects that are "under-construction" and sold by big builders promising delivery in the foreseeable future (usually 2 – 3 years' time), the payment for the concluded transaction between a registered valid buyer and registered valid seller usually happens in tranches. The builders book the flats in the name of the registered buyer based on a token advance amount (varying between INR 1 lakh to INR 5 lakhs depending upon the nature of the project).

The payment to X Ltd, in turn, begins with the first token payment made by the buyer to the seller and thereafter every time a tranche of payment is released (usually linked to progress as per the agreed construction plan). Usually the buyers, in turn, get financing from a home finance company (NBFC) or a bank specializing in mortgages). Note that X Ltd. has various tie-ups with top rated banks and home financing institutions, and they help the buyers to connect with the loan providers as part of their process.

X Ltd. is funded by PE funds and high net worth individuals, mostly incorporated in the USA. X Ltd is presently unlisted in the Indian stock market.

However, over the past 2 years, things have been less attractive – for both the company and the industry.

In recent years, the Board of X Ltd. has got concerned over the differences between projected revenue (based on the order book of closed transactions) and actual revenue realizations that occurred subsequently. The valuation of the company has, in turn, got impacted negatively.

i) The Board has sought your advice to on the Company's fair market value. Discuss the various factors you would consider – both qualitative and quantitative – in valuing the company. Also highlight potential risks that are present in the business model above. Your answer should include general aspects of valuation of the Company and a specific focus on potential risk factors that can impact the valuation negatively. (25)

[*Hint: Do consider the impact of recent events where project delivery was impacted. Also consider impact of key Regulations (as applicable) within the factors above.]*

ii) Briefly describe three keys concepts that can be used as a framework to analyze human behavior in the context of investment psychology. (3)

iii) In your view, how does each one of the above affect the Property developers/sellers and potential homeowners/ buyers – mainly middle class and investor class (e.g. NRIs) in your view - would it be beneficial or otherwise to them? (8)

iv) Many of the reputed builders that are part on Ghar.com are listed. You have been invited by another client within your consultancy firm, Y Ltd., which is a top-rated mutual fund. They have a specialized property fund. They have asked for a presentation from you covering the following aspects.

a) Define the Efficient Market Hypothesis (EMH) and describe what this implies in terms of active versus passive investment management styles. (3)

b) What deficiencies can be spotted with respect to EMH narrative? (8)

c) The Group CIO wishes to create a framework to identify managers within his team who are likely to be successful as against those who are unlikely to be successful. This is more like an early warning system so that they can help the likely unsuccessful ones to fill the gaps where necessary. They request your assistance in defining certain aspects that could differentiate likely successful and unsuccessful managers. (8)

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Q. 2) **i)** What are the key risks that banks face and how are these managed? (9)

ii) List the types of bank capital that fall into each of the three tiers typically set by the regulators. (3)

Thirteen state banks have reported combined losses of $8.6 billion for the year to March - including $6.5 billion in the last quarter. Assets that bank in the country have used as collaterals have fallen sharply and many of the loans are non-performing. The non-performing loans have surged nearly a fifth from end-December levels.

iii) There could be a situation where 5 of the banks may potentially go bust and will not be able to survive for a long time. Discuss the following alternatives that can be taken up by the Central Bank :

a) Introduce with immediate effect, a limit on the funds that can be withdrawn on any day from the banking system as cash withdrawal.

b) Act as a lender of last resort, whereby the central bank would lend money directly to the failing banks in order to allow them to finance their accruing liabilities. This may require printing money if demands from bank is very high.

c) Allow the 5 banks to collapse.

Discuss the pros and cons of each solution form the perspective of the central bank and the tax payers of the country. (12)

iv) Central bank has announced a bailout.

You are of the opinion that the reason for the number of banks being bailed out is that the market participants did not consider the risks qualitatively in order to see the significant risks that lay ahead and that these risks were not being properly assessed.

Your friend is of the opinion that the cause was a failing in the quantitative measurement of risk in the risk models that the banks have been using. Further better models and more relevant data would have prevented the crisis from happening.

a) List three market participants who enable markets to operate and three who offer services. (3)

b) Outline the merits and criticisms of your friend's view. (4)

c) Outline the merits and criticism that your friend will offer for your view. (4)
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Q. 3) A recent article argues that a market valuation of a privately owned Pharma company is unaffected by its dividend policy. It goes on argue that since the investor's desire for additional cash can always be satisfied by selling an existing investment holding, investors will not pay a higher price for shares of firms with high pay-outs.

i) Which theory does the article base its argument on? What are the major assumptions underlying this theory? What are practical factors influencing dividend policy? (5)

At its recent year end the company decreased its annual dividend payment by 20%.

ii) Outline the possible reasons it may have done so? (5)
[10]

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