Q.1 A. What is a forward and a futures contract? (2-marks)

B. What are the risks that are present in one and not the other? (1-mark)

C. A Corporation has an expected cash inflow of $ 100 million from export proceeds 3 months from now. The corporation expects the PKR to appreciate in 3 months time. A 3 month USD/PKR forward is trading at 100.80 currently. If the corporation expects the USD/PKR to be at 100.10 in 3-months time, what should it do? If 3 months from now the USD/PKR trades at 100.90 in the market, what will be the gain/loss to the corporation on the forward contract? (2-marks)

Q.2 A. Under Basel-III’s revised framework for Liquidity Risk, which two ratios have been introduced? (2-marks)

B. What is the purpose of introducing each of these two ratios? (3-marks)

Q.3 A. What is the difference between Economic and Regulatory Capital? (2-marks)

B. Define RAROC (Risk-adjusted return on Capital). How is it calculated? (3-marks)

Q.4 What is expected loss and unexpected loss? What kind of reserves do institutions hold against each of these losses? (5-marks)

Q.5 **Case Study Société Generale**

In January 2008, the bank Societe Generale lost approximately €4.9 billion closing out positions over three days of trading beginning January 21, 2008 -- a period in which the market was experiencing a large drop in equity indices. The bank states these positions were fraudulent transactions created by Jerome Kerviel, a trader with the company. The police stated they lacked evidence to charge him with fraud and charged him with breach of trust and illegally accessing computers. Kerviel states his actions were known to his superiors and that the losses were caused by panic selling by the bank.

Kerviel had several years of experience in Societe's back office and was well-versed in the company policies for approving and regulating trading among its brokers. Kerviel was not considered a well-renowned trader by any extent; in fact, when the story broke, many openly wondered how such a person could obtain authority over such huge sums of capital without the company noticing. Kerviel hid his early gains by creating fake, offsetting trades in the system's computers and logs. He had extensive knowledge of the computers and systems used in the company, which was essential to his trading scheme.

Bank officials claim that throughout 2007, Kerviel had been trading profita anticipation of falling market prices. However, they accused him of exceeding authority to engage in unauthorized trades totaling as much as €49.9 billion, a figure much higher than the bank's total market capitalization. Bank officials claim that Kerviel tried to conceal the activity by creating losing trades intentionally so as to offset his early gains. Kerviel generated €1.4 billion in hidden profits by the end of 2007. His employers say they uncovered unauthorized trading traced to Kerviel on January 19, 2008. The bank then closed out these positions over three days of trading beginning January 21, 2008 -- a period in which the market was experiencing a large drop in equity indices and losses attributed were estimated at €4.9 billion.

The bank claimed Kerviel "had taken massive fraudulent directional positions in 2007 and 2008 far beyond his limited authority" and that the trades involved European stock index futures. Though bank officials say Kerviel apparently worked alone, skeptics question how unauthorized trading of this magnitude could go unnoticed. Kerviel's unassuming background and position have heightened the skepticism that he worked alone. Some analysts suggest that unauthorized trading of this scale may have gone unnoticed initially due to the high volume in low-risk trades normally conducted by his department. The bank said that whenever the fake trades were questioned, Kerviel would describe it as a mistake then cancel the trade followed by replacing that trade with another transaction using a different instrument to avoid detection. Kerviel's lawyers, Elisabeth Meyer and Christian Charrière-Bournazel, said that the bank’s managers "brought the loss on themselves"; accused the bank’s management of wanting to "raise a smokescreen to divert public attention from far more substantial losses in the last few months" and said that Kerviel had earned the bank a profit of $2 billion as of December 31, 2007.

Kerviel is not thought to have profited personally from the suspicious trades. Prosecutors say Kerviel has been cooperative with the investigation and has told them his actions were also practiced by other traders in the company. Kerviel admits to exceeding his credit limits but claims he was working to increase bank profits. He told authorities that the bank was happy with his previous year's performance and was expecting to be paid a €300,000 bonus. Family members speaking out say the bank is using Kerviel as a scapegoat to excuse its recent heavy. The bank states that Kerviel was assigned to arbitrage discrepancies between equity derivatives and cash equity prices and "began creating the fictitious trades in late 2006 and early 2007 but that these transactions were relatively small. The fake trading increased in frequency and in size". The Executive Chairman of Société Générale, Daniel Bouton described the pattern as "a mutating virus" in which hundreds of thousands of trades were hidden behind offsetting faked hedge trades. Officials say Kerviel was careful to close the trades in just two or three days, just before the trades' timed controls would trigger notice from the bank's internal control system and Kerviel would then shift those older positions to newly initiated trades. City experts have expressed skepticism of the bank's account, saying that a pattern of closing out trades within the day cycle alleged could not be accomplished given the immense sums of loss involved.

A. What were the reasons that led to a lagged detection of Jerome's activity by the bank's management in your opinion? (3-marks)

B. What type(s) of risk(s) do you think the bank has been exposed to due to Jerome Kerviel's actions? (2- marks)

C. As a risk manager, what controls would you institute to avoid such a situation in the future? (5-marks)

Q.6 A. The regulators are concerned about the capital adequacy of banks. Discuss three main reasons for the desirability of adequate level of capital that must be held by a bank. (3-marks)

B. Why do equity holders care more about "Return on Equity" rather than "Return on Asset"? Elaborate. (2-marks)

Q.7 A. What frameworks are viable to banks to assess the level of operational risk? Explain any two methods. (3-marks)

B. The policy of outsourcing bank's security arrangements to outside security agencies has added to the operational risk. What measures would you suggest to overcome this dilemma faced by banking institutions at the moment? (2-marks)

Q.8 A. Banks are keenly interested to expand the size of their foreign exch business with the objective to diversify their sources of income and enhance profitability. Discuss the various types of foreign exchange business handled by banks. What are the risks associated with these businesses and how can these risks be minimized/controlled?

(5-marks)

B. Does frequent re-pricing of a loan minimize the interest rate risk? Differentiate between the re-pricing of a loan and fixing a cap on the mark up rate together and explain its impact on a bank's profitability?

(5-marks)

Q.9 A. Pakistan's economic problems are expected to multiply in the coming period due to growing fiscal, trade and current account imbalances. Analyze this situation and suggest what type of bank's product/lending would be most appropriate to manage credit risk under this scenario?

(5-marks)

B. History demonstrates that capital adequacy is not appropriate to combat irresponsible or sloppy lending habits. The best protection against a bank's failure will always be a robust credit culture, where everyone takes personal responsibility for risk and where employees are sufficiently trained to play their part.

As a Risk Manager of a bank, what are the risk management framework, policies and tools that you would use to specifically guard against credit risk? (5-marks)