30. The balance sheet of a banking system is as follows.

Assets ($ million)		Liabilities ($ million)	
Reserves	500	Deposits	2000
Loans	1500		

The required reserve ratio is 20% and the public does not hold cash initially.

Suppose a customer withdraws $200 million from his bank account and holds it as cash. If all banks do not hold any excess reserves, the amount of money supply is _____ after the process of credit creation/contraction has been completed.

A. $1200 million
B. $1400 million
C. $1500 million
D. $1700 million

31. David plans to deposit $1 million to a financial institution in Hong Kong as savings deposit. Which of the following types of institution can receive this amount of savings deposit?

(1) a licensed bank
(2) a restricted licence bank
(3) a deposit-taking company

A. (1) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

32. Suppose the central bank requires the commercial banks to keep all deposits as reserves. Which of the following statements is **INCORRECT**?

A. The monetary base will be equal to the money supply.
B. The required reserve ratio will be equal to one.
C. The maximum banking multiplier will be equal to zero.
D. The money creation ability of the banking system will be smaller than that of a fractional reserve banking system.

35. The nominal interest rate on a one-year deposit is 1% and the inflation rate is 3%. The cost of holding cash is _____ and the real rate of return of holding cash is _____ .

A. 1% ..... -3%
B. 1% ..... -2%
C. 3% ..... -3%
D. 3% ..... -2%

41. Which of the following results **CANNOT** be a negative number?

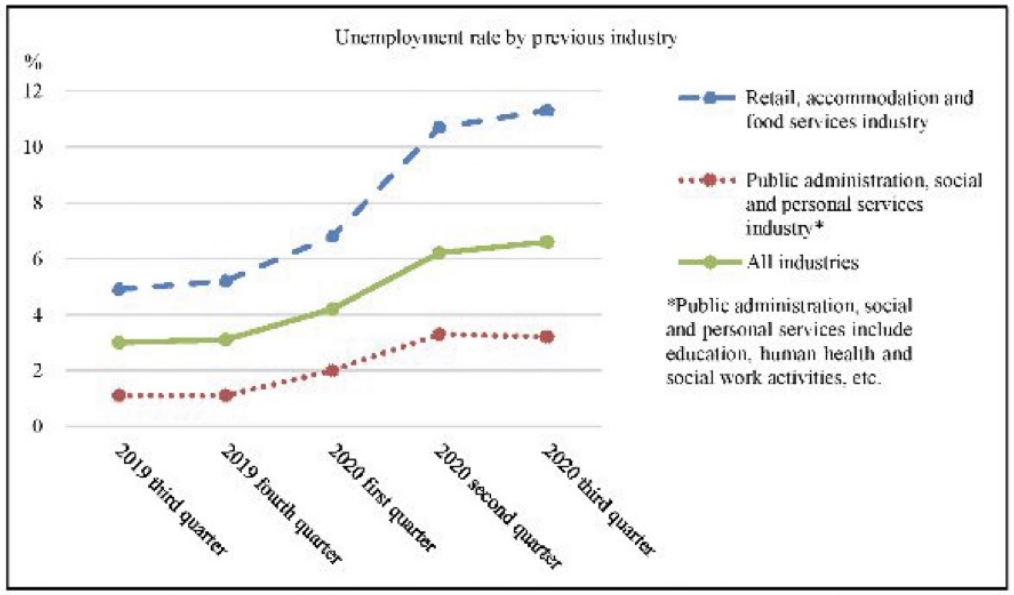
A. total exports *minus* total imports
B. money supply (M2) *minus* money supply (M1)
C. factor income received from abroad *minus* factor income paid abroad
D. GDP at market price *minus* GDP at factor cost

6. (a) 'Deflation will occur if the amount of goods and services produced is growing faster than money supply.' Explain this statement in terms of the quantity theory of money. (4 marks)

(b) 'If deflation is expected, the real interest rate will be higher than the nominal interest rate.' Why? (2 marks)

11. The Government launched the Consumption Voucher Scheme in 2021 to relieve the impact of COVID-19 on the Hong Kong economy.

Source A: Statistical data about unemployment rate in Hong Kong



Source B: An extract of information about the Consumption Voucher Scheme

All Hong Kong permanent residents and new arrivals aged 18 or above, who comply with the 'residing in Hong Kong' requirement, could register to receive electronic consumption vouchers with a total value of $5 000 by instalments.

Source C: Information about the four designated stored value facilities to receive the $5 000 consumption vouchers by instalments

	AlipayHK	Octopus	Tap & Go	WeChat Pay HK
Public transportation with the above payment facilities installed	MTR, bus, mini bus and ferry	MTR, bus, mini bus and ferry	Bus and mini bus	None
Promotions to consumption voucher users	5 e-coupons	First 2 million registered customers enjoy $18 of stored value	$50 awarded when using virtual Tap & Go Unionpay card for the first transaction with an amount equal to or larger than $50	e-coupons

Source D: Some reminders for the Consumption Voucher Scheme

- Consumption vouchers cannot be used in transactions such as payments to the government (e.g. tax), public utilities (e.g. electricity charges), purchase of financial products (e.g. insurance), and direct purchase from merchants located outside Hong Kong.
- There are deadlines for using consumption vouchers.

Source E: Some views on the Consumption Voucher Scheme in Hong Kong

A housewife 	I have spent more than $5 000 as there are e-coupons from the stored value facility provider. A lot of promotions in large retail chains and malls have also tempted me to consume!
A former chef in a restaurant 	I have been laid off and have stayed home for months. No one knows when the travellers would be back. I hope that the Consumption Voucher Scheme will bring more local people to spend on food and beverage and the whole industry can survive the pandemic. Otherwise, many workers will be forced to leave the industry.
A doctor working in a public hospital 	Resources should be allocated to the medical sector, instead of giving everyone an equal amount under the Consumption Voucher Scheme. The public hospitals lacked space, manpower and equipment even before the pandemic. Start building new hospitals earlier so that more lives could be saved.

(a) Refer to Source A.

(i) In which phase of business cycle the Hong Kong economy most likely was? Apart from the change in unemployment rate, list **ONE** other economic phenomenon of this phase. (2 marks)

(ii) Why did the unemployment rate of retail, accommodation and food services industry increase faster than that of public administration, social and personal services industry during the pandemic? (2 marks)

(b) Refer to Source B. Would the $5 000 distributed under the Consumption Voucher Scheme be included in the calculation of government consumption expenditure? Explain your answer. (2 marks)

(c) Based on the information given in Source C, explain with **TWO** reasons why the market of stored value facilities in Hong Kong is **NOT** perfectly competitive. (4 marks)

(d) Refer to Source D. Some citizens claimed, 'I would rather receive $5 000 cash instead of consumption vouchers.' In terms of functions of money, explain such a claim with **TWO** reasons. (4 marks)

SECTION 4: MONEY AND BANKING (I)

4.1 MONEY: NATURE AND FUNCTIONS

Multiple Choice Questions

1990/CE/II/29
To serve as a unit of account, money has to be

A. homogeneous.
B. portable.
C. scarce.
D. durable.

1990/CE/II/30
The Canadian Maple Leaf gold coins (加拿大楓葉金幣) can be an example of _____ in Hong Kong.

A. legal tender
B. credit money
C. bank assets
D. token coins

1990/CE/II/40
Which of the following is the most acceptable means to settle a debt in Hong Kong?

A. credit cards
B. personal cheques
C. Japanese yen
D. Bank drafts

1990/CE/II/41
The value of money is reflected by its

A. face value.
B. intrinsic value.
C. purchasing power.
D. owner's subjective value.

1990/CE/II/58
Which of the following statements is **INCORRECT**?

A. A credit card is money because it is a means of payment.
B. The use of money eliminates the need for the double coincidence of wants in transactions.
C. Money performs less satisfactorily as a store of value when inflation is serious.
D. In a barter economy, when a person buys a good, he must be also selling another good.

1991/CE/II/29
Which of the following can best serve as money in a desert?

A. shells
B. sand
C. water
D. potatoes

1992/CE/II/33
A time deposit fulfils the function of money as a

A. medium of exchange.
B. store of value.
C. unit of account.
D. standard of deferred payments.

1992/CE/II/57
The potato is **NOT** a good form of money mainly because it is

A. indivisible.
B. portable.
C. homogeneous.
D. perishable.

1992/CE/II/59
Which of the following descriptions about barter is **FALSE**?

A. Barter means a direct exchange of goods and services.
B. Barter is possible only when there is double coincidence of wants.
C. Barter exists only in societies without a medium of exchange.
D. Usually it is more difficult to practise barter in international trade than in domestic trade.

1993/CE/II/31
Nowadays one can use a credit card or coins to make phone calls from public telephones. The telephone company accepts the use of credit cards for phone calls because

(1) a credit card is legal tender
(2) a credit card is a means of deferred payment
(3) credit card holders are more trustworthy people
(4) the cost of handling coins can be reduced

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (4) only
D. (3) and (4) only

1993/CE/II/58
Money will **NOT** exist if

A. there is no banking system.
B. only credit cards are accepted for payment.
C. there is only one man on earth.
D. trade is totally banned among countries.

1994/CE/II/41
Banknotes are preferred to cheques as means of payment because the former are more

A. divisible.
B. generally acceptable.
C. portable.
D. scarce.

1994/CE/II/44
Which of the following descriptions of 'demand deposits' is correct?

A. They can be accepted by deposit-taking companies in Hong Kong.
B. They are legal tender in Hong Kong.
C. They are a form of credit money.
D. They are an interest-bearing asset.

1995/CE/II/38
Which of the following about money is correct?

A. It must have intrinsic value.
B. It must be backed up by law to be the medium of exchange.
C. It must be convertible into some precious metal.
D. It must be generally acceptable as the medium of exchange.

1995/CE/II/39
Banknotes is a better form of money than demand deposits because the former is more

A. generally acceptable.
B. divisible.
C. durable.
D. portable.

1995/CE/II/40
Arrange the following assets is terms of liquidity in descending order:

(1) ordinary shares
(2) real estate
(3) bank notes
(4) demand deposits

A. (1), (3), (4), (2)
B. (3), (4), (1), (2)
C. (3), (4), (2), (1)
D. (4), (3), (2), (1)

1995/CE/II/50
Exchange with the use of money differs from barter exchange in that the former

A. is controlled by the government but the latter is not.
B. has a price for each good but the latter has not.
C. does not require the double coincidence of wants but the latter does.
D. involves competition but the latter does not.

1996/CE/II/34
During war time, gold is a better form of money than paper money mainly because gold is more

A. durable.
B. portable.
C. generally acceptable.
D. homogeneous.

1996/CE/II/38
Arrange the following bank assets in descending order of liquidity:

(1) loans and advances
(2) deposits with other banks
(3) real estates owned by the bank

A. (1), (2), (3)
B. (1), (3), (2)
C. (2), (1), (3)
D. (3), (2), (1)

1997/CE/II/32
99 gold is a better form of money than diamond because the former is more

(1) easily divisible.
(2) scarce.
(3) homogenous.

A. (1) and (2) only.
B. (1) and (3) only
C. (2) and (3) only.
D. (1), (2) and (3)

1997/CE/II/38
Which of the following is/are the function(s) of money performed by credit cards?

(1) standard for deferred payment
(2) means of payment
(3) unit of account
(4) store of value

A. (1) only
B. (2) only
C. (1) and (2) only
D. (3) and (4) only

1997/CE/II/39
Holders of a/an _____ has the least risk and the highest liquidity.

A. long-term corporate bond
B. ordinary share
C. preference share
D. savings deposit

1998/CE/II/32
Cheques are preferred to banknotes and coins when used as medium of exchange in large transactions because cheques are more

A. durable.
B. generally acceptable.
C. scarce.
D. portable.

1999/CE/II/35
9999 Gold is better as a form of money than jade because the former is more

(1) generally acceptable.
(2) easily divisible.
(3) homogeneous.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2001/CE/II/48
In Hong Kong, drivers can buy tickets from tunnel companies for using tunnel services. These tickets are **NOT** a standard of deferred payment. In other words,

A. the purchasing power stored in the tickets can only be used for certain tunnel services.
B. most people in Hong Kong do not use the tickets for the tunnel services.
C. the value of most goods and services are not measured in terms of the tickets.
D. payment in the future in general is not denominated in the tickets.

2002/CE/II/34
Which of the following statements about money are correct?

(1) The purchasing power of money will remain unchanged in times of deflation.
(2) A wider use of electronic money will reduce the cash held by the public.
(3) Money helps people to accumulate their purchasing power.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2003/CE/II/50
Fish are **NOT** good units of account mainly because they are **NOT**

A. durable.
B. scarce.
C. homogeneous.
D. portable.

2004/CE/II/35
When a barter economy changes to an economy that uses money in exchange,

(1) finding trading partners becomes easier.
(2) making transactions involving future settlement of debt becomes easier.
(3) agreeing upon prices takes a longer time.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2004/CE/II/36
A time deposit is better than a demand deposit in serving the _____ function of money because the former _____.

A. unit of account ..... has a common unit
B. store of value ..... bears interest income
C. medium of exchange ..... is generally acceptable
D. standard of deferred payments ..... is a liquid asset

2004/CE/II/40
Which of the following kinds of assets has the lowest liquidity?

A. cash in hand
B. ordinary shares
C. demand deposits
D. savings deposits

2005/CE/II/35
Country A used gold as its currency. Suppose the scientists in the country have found a method to produce gold at nearly zero cost. As a result, the government has decided to give up using gold as its currency. This illustrates that good money has to be

A. portable.
B. divisible.
C. scarce.
D. durable.

2006/CE/II/33
Which of the following statements about money are correct?

(1) Under the electronic payment system, transactions are still settled with money.
(2) Deflation reduces the purchasing power of money.
(3) With the use of money in exchange, there is no need to have double coincidence of wants.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2006/CE/II/34
9999 gold is a better form of money than grains of wheat because the former is more

(1) durable.
(2) homogeneous.
(3) easily divisible.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2007/CE/II/35
During inflation, people are less willing to keep their wealth in the form of money. This is because at that time the function of money to serve as a _____ is weakened.

A. medium of exchange
B. store of value
C. unit of account
D. means of payment

2008/CE/II/34
An economy that changes from barter to using money in exchange would reduce

A. the need for specialization.
B. the need for exchange.
C. the time for searching trading partners.
D. the frequency of making payments.

2008/CE/II/35
As a form of money, polymer notes (塑膠鈔票) are more

A. homogenous
B. durable
C. divisible
D. portable

2008/CE/II/36
A more popular use of electronic money can bring about the following advantages:

(1) a smaller amount of coins and notes to be handled
(2) a lower chance of receiving fake banknotes
(3) more interest earned by keeping the money in banks for a longer period of time

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2009/CE/II/35
Which of the following assets has the highest liquidity?

A. real estates
B. government bonds
C. savings deposits
D. time deposits

2009/CE/II/36

When the price of a good is quoted in Renminbi (RMB) on a price tag in some shops in Hong Kong, RMB is performing as

A. legal tender.
B. a store of value.
C. a unit of account.
D. a standard of deferred payment.

2010/CE/II/34
Which of the following statements about money are correct ?

(1) The use of money reduces the information cost of searching for trading partners.
(2) Money would not exist if there are no banks.
(3) Money still exists if all transactions are settled by electronic transfer (or settled online).

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2010/CE/II/37
Holders of _____ have the lowest liquidity.

A. negotiable certificates of deposits
B. ordinary shares
C. savings deposits
D. real estates

2015/DSE/I/35
Refer to the following news extract.

> Yu'e Bao (餘額寶) is a new online investment fund introduced by Alibaba. Much of the popularity of Yu'e Bao has come from its ability to give customers the convenience of a demand deposit-meaning they can withdraw their funds whenever they like-but with returns well above what a bank could offer. It recently advertised-an annualised return of 5 .25%, but that level has on occasion risen to above 7% since the fund was set up. By contrast, banks offer 3.3% as interest for a one-year fixed deposit and close to nothing on savings deposits.

Yu'e Bao is a better _____ as compared with bank deposits because _____.

A. unit of account ..... it provides a homogeneous means of payment
B. unit of account ..... it can facilitate people's buying and selling of goods and services
C. store of value ..... it allows customers to have higher purchasing power in the future
D. store of value ..... the customers can keep their unused funds in Yu'e Bao

2016/DSE/I/30
Refer to the following diagram.

Ken read the above advertisement and bought a new mobile phone by installments. In this payment, which of the following functions did money perform?

(1) store of value
(2) unit of account
(3) standard of deferred payment

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2019/DSE/I/30

Refer to the following hypothetical case.

The currency of Country T, T-Dollar, has depreciated by 40 percent from the beginning of 2018 after the US announced a series of trade sanctions against Country T. As a result, some shops in Country T quoted prices in US Dollar instead of T-Dollar. Shops in black markets refused to accept T-Dollar. Some citizens bought foreign currencies to safeguard their assets.

Which functions of money of the T-Dollar were weakened?

(1) medium of exchange
(2) unit of account
(3) store of value

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2021/DSE/I/30

Study the following news extract about Bitcoin (比特幣).

In 2018, Kentucky Fried Chicken Canada launched 'Bitcoin Bucket'. The company set up a Facebook live feed, displaying the number of bitcoins needed to pay for the meal as in the picture below. The 'Bitcoin Bucket' could only be purchased online and would be delivered to the buyers' home later.

In the above case, Bitcoin performed as a _____.

(1) medium of exchange
(2) unit of account
(3) standard of deferred payment

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

Short and Structured Questions

1991/CE/I/5(a)
State **THREE** functions of money. (3 marks)

1993/CE/I/3(d)(ii)

Explain why stored value tickets cannot perform the following functions of money:

(I) medium of exchange
(II) store of value

(4 marks)

1994/CE/I/6
Employer: If you work for me this month, I'll give your 30 metres of cloth in payment at the end of the month.
Employee: Please pay me cash. I won't accept cloth in payment.

According to the employer, what function of money does the cloth perform, apart from acting as a medium of exchange? Also explain why cloth in general cannot perform this function. (6 marks)

1995/CE/10(b)(i)
In Hong Kong, a demand or savings deposit holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank deposit account to the shop's bank deposit account.

Name the function of money which savings deposits together with EPS cards can perform in the above example. (2 marks)

1996/CE/I/8
Explain which **TWO** functions of money would be affected in times of inflation. (4 marks)

1997/CE/I/4
On an island, people sell their goods and services in exchange for salt and use salt to buy what they want.

(a) 'There is no money in this economy.' Explain whether you agree with this statement or not. (2 marks)

(b) Explain **TWO** difficulties that the people on the island may encounter when using salt in exchange for goods and services. (4 marks)

1998/CE/I/6
One prediction about future commercial cities is: ' .....with technological advancement, trading of goods and services will be done without cash. There will be no cash in these advanced economies.'

John said, ' Money will not exist in these economies as there is no cash.'
Explain whether John's comment is correct. (4 marks)

1999/CE/I/11(d)
It is suggested that 'Octopus cards (八達通卡)' can be used as a store of value and as a means of payment for taxi service.

Name the other two functions of money and explain why Octopus cards cannot perform these two functions. (4 marks)

2000/CE/I/5
Barbarian A: I want to exchange some of my bananas for some of your vegetables.
Barbarian B: But what I want now is some wood.

Define money and explain how money helps to solve the problem of exchange in this case. (4 marks)

2001/CE/I/5
Explain why banknotes would be more generally-accepted as a medium of exchange than diamonds. (4 marks)

2002/CE/I/11(c)
Students in the tutorial school with good academic achievements are awarded coupons. These coupons can be used to purchase books in some specified bookstores. Explain whether these coupons are 'money'. (3 marks)

2003/CE/I/7
In some Asian countries, the prices of goods and services in tourist areas are expressed in US dollars. Suppose tourists pay cash in US dollars for their purchases.

(a) Name **TWO** functions of money performed by the US dollar as illustrated in the above situation. (2 marks)

(b) Name and explain the other **TWO** functions of money. (4 marks)

2004/CE/I/9(b)
Which function of money does cash perform better in times of deflation than in times of inflation? Explain. (3 marks)

2004/CE/I/11(c)(ii)
A famous chain of fashion stores opens a new branch.

To celebrate the new opening, the chain stores issue cash coupons to their customers who can use them as cash in these stores Explain why the cash coupons are not money. (2 marks)

2005/CE/I/4
State and explain **TWO** functions of money. (4 marks)

2006/CE/I/7
The 'individual travel scheme' brings many tourists from Mainland China to Hong Kong. In the following table, fill in the blanks to indicate the function of money that is performed by Renminbi (RMB) in each case.

	The function of money performed by RMB
Case 1 : The prices of goods and services in some shops in Hong Kong are expressed in RMB.	
Case 2 : Some shops in Hong Kong accept cash payment in RMB.	
Case 3 : Some banks in Hong Kong accept RMB savings deposits.	

(3 marks)

2007/CE/I/6
Many shops in Macau accept payment in Hong Kong dollars. Banks in Macau also accept Hong Kong dollar deposits.

Name **TWO** functions of money performed by the Hong Kong dollar as illustrated in the above situation. Explain these functions. (4 marks)

2009/CE/I/9(d)
Some bookstores issue book coupons which the holders can use to pay for their purchases in these bookstores.

(i) Apart from 'store of value' and 'standard of deferred payment', name **TWO** other functions of money. (2 marks)

(ii) Book coupons cannot perform the two functions of money mentioned in the answer to (d)(i). Explain. (2 marks)

2010/CE/I/5
(a) Money is defined as .....

..... (2 marks)

(b) Explain with **TWO** reasons why pearls are not a good form of money. (4 marks)

2012/DSE/II/7
"9999 gold is preferred to cigarettes when used as money." Give **TWO** reasons to explain this argument. (4 marks)

2017/DSE/II/5
Due to political instability, the currency of a country depreciates sharply and becomes highly volatile. Which **TWO** functions of money may be weakened? Explain. (4 marks)

2018/DSE/II/12(b)
Source 1: search result from a hotel booking website

Hotel A Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 30 square metres 2 Twin Beds	Free cancellation	**Book now!** HK$2 100 OR RMB¥1750
Hotel B Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 32 square metres 2 Twin Beds Free WIFI	Non- refundable	**Book now!** HK$2 040 OR RMB¥1700

Which **TWO** functions of money does the Renminbi perform in Source 1? Explain. (4 marks)

2020/DSE/II/5b

(b) Peter owes Mary $100 and he has no cash in his wallet. He suggests repaying Mary by a cash coupon (with a face value of $100) issued by a supermarket chain. Give **TWO** economic reasons to explain why Mary would refuse to accept the cash coupon as a repayment of Peter's debt. (4 marks)

2021/DSE/II/7

In a country, most of the prisoners in a correctional institution (懲教所) use cigarettes as a medium of exchange, but citizens in society refuse to settle payment by using cigarettes. Apart from not being generally acceptable, explain with **TWO** reasons why cigarettes are **NOT** a good form of money in society. (4 marks)

MARKING SCHEME

1990/CE/II/29 A	1993/CE/II/31 C	1996/CE/II/38 C	2004/CE/II/35 A (75%)	2008/CE/II/36 D (30%)
1990/CE/II/30 C	1993/CE/II/58 C	1997/CE/II/32 B	2004/CE/II/36 B (87%)	2009/CE/II/35 C (72%)
1990/CE/II/40 D	1994/CE/II/41 B	1997/CE/II/38 B (deleted)	2004/CE/II/40 B (49%)	2009/CE/II/36 C (74%)
1990/CE/II/41 C	1994/CE/II/44 C	1997/CE/II/39 D	2005/CE/II/35 C (79%)	2010/CE/II/34 B (85%)
1990/CE/II/58 A	1995/CE/II/38 D	1998/CE/II/32 D	2006/CE/II/33 B (67%)	2010/CE/II/37 D (67%)
1991/CE/II/29 A	1995/CE/II/39 A	1999/CE/II/35 D	2006/CE/II/34 A (60%)	2015/DSE/I/35 C (78%)
1992/CE/II/33 B	1995/CE/II/40 B	2001/CE/II/48 D	2007/CE/II/35 B (83%)	2016/DSE/I/30 C (74%)
1992/CE/II/57 D	1995/CE/II/50 C	2002/CE/II/34 C (82%)	2008/CE/II/34 C (84%)	2019/DSE/I/30 D
1992/CE/II/59 C	1996/CE/II/34 C	2003/CE/II/50 C (43%)	2008/CE/II/35 B (96%)	2021/DSE/I/30 A

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/I/5(a)
- a medium of exchange
- a store of value
- a standard of deferred payment
- a unit of account (1@, max: 3)

[Mark the **FIRST THREE** functions only.]

1993/CE/I/3(d)(ii)
(I) It is not (generally) accepted in exchange. (2)
(II) It cannot provide (or store up the) purchasing power for future use.
OR
It cannot be readily converted into money. (2)

1994/CE/I/6
It is **NOT** a standard of deferred payment, because it is (2)
not a commonly accepted medium of exchange (2)
not of homogeneous quality (2)
OR
It is **NOT** a store of value, because it is (2)
not a commonly accepted medium of exchange (2)
not durable / unstable value (2)
OR
It is **NOT** a unit of account, because it is (2)
not a commonly accepted medium of exchange (2)
exchange ratio arbitrary (2)

1995/CE/10(b)(i)
Medium of exchange (2)
OR
Means of payment (2)

1996/CE/I/8
Store of value - less purchasing power of the same amount of money
Standard of deferred payment - the real value of money decrease / creditors prefer immediate cash to post-dated cheques
Medium of exchange - the real value of money decreases / the general acceptability of money is adversely affected (in times of a hyperinflation) (2@, max : 4)
[Mark the **FIRST TWO** points only.]

1997/CE/I/4
(a) (Disagree.)
Salt is used as money, because (1)
it is generally accepted as the medium of exchange.(2) (max : 2)
(Remark: Mere mention of the definition of money without saying disagree or giving any other elaboration - No mark.)

(b) - uneasy to maintain a stable quality (loss in value, storage cost)
- may be bulky to carry around a large amount of salt
- may not be scarce enough (cannot control the money supply)
- different kinds of salt may not have uniform quality (2@, max : 4)

[Mark the **FIRST TWO** points only.]

1998/CE/I/6
Wrong.
Money still exists because a generally accepted medium of exchange is still needed. (3)
It may be in other forms such as electronic money. (1)

1999/CE/I/11(d)
Unit of account - (1)
it is not a unit of account because the prices of other goods are not expressed in terms of Octopus cards. (1)

Standard of deferred payment - (1)
it is not a standard of deferred payment because future payment is not denominated in terms of Octopus cards. (1)

2000/CE/I/5
Money is a generally accepted medium of exchange. (2)

(The problem of exchange in the case is the need to search for double coincidence of wants / the act of buying and the act of selling cannot be separated.)

If money is used as a medium of exchange, A can pay money to buy B's vegetables without selling his bananas to B. B can also pay money to buy wood from someone other than A. With money, exchange can take place even if there is no double coincidence of wants / act of buying and the act of selling can be separated. (2)

2001/CE/I/5
(On divisibility)
Banknotes can be divided into different denominations without a change in value.
Diamond if divided into smaller units will have a fall in total value.

(On homogeneity)
Banknotes with the same face value issued by the same bank share uniform physical characteristics ⇒ homogeneous in value
Diamonds do not have uniform physical characteristics ⇒ heterogeneous n value

(On homogeneity)
The value of a banknote is more easily recognized (because of uniform physical characteristics).
The value of a diamond is not easily recognized (because diamonds do not have uniform physical characteristics).
(2@, max : 4)

2002/CE/I/11(c)
No because (1)
they are not generally accepted as a medium of exchange. (1)
not generally accepted because they cannot be used to buy other goods and services. (1)

2003/CE/I/7
(a) Medium of exchange (1)
Unit of account (1)
[Mark the **FIRST TWO** points only.]

(b) Store of value - (1)
people can store up the purchasing power for future spending on goods and services. (1)
Standard of deferred payment - (1)
future payment is denominated in terms of money. (1)
[Mark the **FIRST TWO** points only.]

2004/CE/I/9(b)
Store of value / store of wealth, because (1)
the purchasing power / real value of cash continues to decrease in times of inflation (but continues to increase in times of deflation). (2)

2004/CE/I/11(c)(ii)
Not generally accepted, because (1)
these coupons cannot be used to buy things in other shops. (1)

2005/CE/I/4
Medium of exchange -
money serves as a medium to facilitate people's buying and selling of goods and services.
Unit of account -
money is used to express the prices and value of goods and services.
Store of value -
people can store up the purchasing power for future spending on goods and services.
Standard of deferred payment -
future payment is expressed in terms of money.
[Mark the **FIRST TWO** points only.] [(1 + 1)@, max: 4]

2006/CE/I/7
(1) unit of account (1)
(2) medium of exchange / means of payment (1)
(3) store of value (1)

2007/CE/I/6
- Accept payment: medium of exchange / means of payment (1)
- HK$ deposit: store of value / store of wealth (1)
[Mark the **FIRST TWO** points only]

Medium of exchange:
the Hong Kong dollar serves as a medium to facilitate people's buying and selling of goods and services in these shops in Macau. (1)
Store of value:
Hong Kong dollar deposits enable people to store up the purchasing power for future spending on goods and services. (1)

2009/CE/I/9(d)
(i) Medium of exchange (1)
Unit of account (1)
[Mark the **FIRST TWO** points only]

(ii) Not a medium of exchange because
these book coupons are not generally accepted by other shops in buying goods and services (1)
Not a unit of account because
the prices of other goods are not expressed in terms of these book coupons (1)

2010/CE/I/5
(a) Money is defined as a generally accepted medium of exchange. (2)

(b) (Not generally acceptable)
Pearls are not generally acceptable as a medium of exchange in trading of goods and services.
(Not divisible)
Pearls if divided into smaller units will have a fall in total value.
(Not homogeneous)
Pearls do not have uniform physical characteristics ⇒ Heterogeneous in value / The value of a pearl is not easily recognized. (2@, max: 4)

2012/DSE/II/7
- Gold is more durable while cigarettes may lose their value during transaction.
- Gold is more generally accepted as medium of exchange than cigarettes.
- Gold is more homogenous while cigarettes have different qualities. (2@, max: 4)
[Mark the **FIRST TWO** points only.]

2017/DSE/II/5
Store of value:
As the value of the local currency drops in terms of foreign currency, its purchasing power in terms of the quantity of foreign goods and services would also fall.
Standard of deferred payment:
As the value of the currency becomes highly volatile, the contracting cost of specifying future payments in terms of this currency would increase.
Medium of exchange:
Some multinational firms may refuse to accept the currency if its value fluctuates too much. (2@, max: 4)
[Mark the **FIRST TWO** functions only.]

2018/DSE/II/12(b)
Unit of account: The price of the hotel accommodation service is expressed in terms of RMB. (2)
Medium of exchange: RMB serves as a medium to facilitate people's buying and selling of services in the website. (2)
[Mark the **FIRST TWO** points only.]

2020/DSE/II/5b

b) During inflation , the real value / purchasing power will decrease of the coupon.
Or
The coupon is not generally acceptable as medium of exchange.

Reasons:

- It has low durability as cigarette may wear out easily.
- It has low divisibility as total value will decrease when cigarettes are divided into small denominations.
- Any other relevant point

[Mark the FIRST TWO points only.]

4.2 BANKING SYSTEM AND THE CENTRAL BANK

1993/CE/II/34
In Hong Kong a restricted licensed bank faces more restrictions than a licensed bank with reference to :

(1) the types of deposits it can accept
(2) the minimum deposit it can accept
(3) the maximum deposit interest rates it can offer

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

1994/CE/II/39
Fanny plans to deposit HK$250 000 in a financial intermediary for three months. Which of the following institutions can accept her deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2000/CE/II/31
Mr Cheung has $100 000 cash in hand. He needs the money two months later to use as partial payment for his new house. He may deposit the money into

(1) a licensed bank
(2) a restricted licence bank
(3) a deposit-taking company

A. (1) only
B. (1) and (2) only
C. (1) and (3) only
D. (2) and (3) only

2001/CE/II/27
John wants to deposit $80 000 for 4 months in Hong Kong. Which of the following financial institutions can accept his deposit?

A. a licensed bank
B. a restricted licence bank
C. a deposit taking company
D. All of the above.

2002/CE/II/32
Which of the following financial institutions in Hong Kong can accept savings deposits?

A. licensed banks
B. restricted licence banks
C. deposit-taking companies
D. All of the above are correct.

2003/CE/II/33
Sue wants to deposit $300 000 for 1 month. Which of the following institutions can accept her deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2005/CE/II/36
Mr Chan plans to deposit $500 000 for one month. Which of the following institutions can accept his deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2007/CE/II/38
If an individual plans to deposit HK$200 000 in a financial institution in Hong Kong for three months, which of the following institutions can accept this deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2010/CE/II/38
David plans to deposit HK$400 000 in a Hong Kong financial institution for six months. Which of the following can accept his deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2014/DSE/I/31
Maggie plans to deposit $500 000 in a financial institution in Hong Kong for two months. Which of the following institutions can accept this deposit?

(1) licensed banks
(2) restricted licence banks
(3) deposit-taking companies

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2018/DSE/I/31
Brian wants to deposit $80 000 for two months in an authorised institution in Hong Kong in the form of a negotiable certificate of deposit. Which of the following statements is correct?

A. As the term of maturity is longer than one month, a deposit-taking company can accept his deposit.
B. As the term of maturity is shorter than three months, a restricted licence bank can accept his deposit.
C. As the amount of deposit is less than $500 000, a restricted licence bank cannot accept his deposit.
D. As negotiable certificates of deposit are not available in a licensed bank, a licensed bank cannot accept his deposit.

1993/CE/II/59
Which of the following is **NOT** a function performed by the Exchange Fund?

A. to issue certificates of indebtedness to the note-issuing banks
B. to manage foreign exchange reserves for the government
C. to issue Exchange Fund bills
D. to determine bank deposit interest rates

1995/CE/II/41
Which of the following are the central-bank functions performed by the Hong Kong Monetary Authority?

(1) supervision of banking activities
(2) financing the budget deficit
(3) maintaining the stability of the exchange rate of the Hong Kong dollar
(4) cheque clearing

A. (1) and (3) only
B. (1) and (4) only
C. (2) and (3) only
D. (2) and (4) only

1996/CE/II/60
Which of the following is **NOT** a function of the Hong Kong Monetary Authority?

A. managing fiscal reserves for the government
B. acting as a clearing house
C. supervising the banking system
D. acting as the lender of last resort

2000/CE/II/32
Which of the following about the central bank functions performed in Hong Kong is correct?

A. The Hong Kong Bank is responsible for the central clearance of the banking system.
B. The Exchange Fund acts as the government's banker.
C. The Hong Kong Monetary Authority carries out monetary policies for the government.
D. The Hong Kong Association of Banks supervises banking activities.

2001/CE/II/49
Which of the following is **NOT** a function of the Hong Kong Monetary Authority?

A. to manage the foreign exchange reserves
B. to carry out monetary policy
C. to act as lender of last resort
D. to determine the best lending rate

2003/CE/II/37
Which of the following central bank functions are performed by the Hong Kong Monetary Authority?

(1) managing the foreign exchange reserves
(2) determining the deposit interest rates of banks
(3) acting as the lender of last resort

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2007/CE/II/37
Which of the following functions are performed by the Hong Kong Monetary Authority?

(1) maintaining the stability of the linked exchange rate
(2) supervising the liquidity position of the private banking institutions
(3) determining the market interest rate in Hong Kong

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2009/CE/II/37
In the financial system of Hong Kong, the Hong Kong Monetary Authority plays the role of

(1) operating the day to day business of the clearing house.
(2) stabilizing the exchange rate of the Hong Kong dollar.
(3) the lender of last resort.

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2), (3)

2012/DSE/I/29
Which of the following is **NOT** a function of the Hong Kong Monetary Authority?

A. determining the inter-bank offered rate in Hong Kong
B. supervising the liquidity position of the private banking institutions
C. managing and investing the Exchange Fund
D. maintaining the stability of the linked exchange rate

2018/DSE/I/33
Which of the following is **NOT** a function of the Hong Kong Monetary Authority?

A. to stabilise the mortgage rate
B. to issue currency notes
C. to supervise the commercial banks
D. to manage the Exchange Fund

Short & Structured Questions

1992/CE/I/3(c)(i)
Name **TWO** central bank functions performed by The Hongkong and Shanghai Banking Corporation (HSBC). (4 marks)

2001/CE/I/10(a)
What is the basic economic role of commercial banks? (2 marks)

2002/CE/I/7
List **TWO** functions of a central bank. (2 marks)

2019/DSE/I/29

Which of the following is/are the function(s) of the Hong Kong Monetary Authority?

(1) Managing the Exchange Fund
(2) Supervising the implementation of fiscal policy
(3) Determining Hong Kong's market interest rate

A. (1) only
B. (2) only
C. (3) only
D. (1), (2) and (3)

2021/DSE/I/32

Jack wants to deposit $400 000 for 5 months. Which of the following financial institutions in Hong Kong can accept his deposit?

(1) a restricted licence bank
(2) a virtual bank which is classified as a licensed bank
(3) a deposit-taking company

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

MARKING SCHEME

1993/CE/II/34 A	2003/CE/II/33 A (57%)	2018/DSE/I/31 C (69%)	2001/CE/II/49 D	2018/DSE/I/33 A (53%)
1994/CE/II/39 B	2005/CE/II/36 A (59%)	1993/CE/II/59 D	2003/CE/II/37 B (46%)	2019/DSE/I/29 A
2000/CE/II/31 A	2007/CE/II/38 B (63%)	1995/CE/II/41 A	2007/CE/II/37 A (56%)	2021/DSE/I/32 C
2001/CE/II/27 A	2010/CE/II/38 B (60%)	1996/CE/II/60 B	2009/CE/II/37 C (42%)	
2002/CE/II/32 A (51%)	2014/DSE/I/31 A (73%)	2000/CE/II/32 C	2012/DSE/I/29 A (64%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/I/3(c)(i)
- note issuing (2)
- government's banker (2)

2001/CE/I/10(a)
Financial intermediaries / to channel people's savings to investments (2)

2002/CE/I/7
- to issue currency
- to act as the banker of the government
- to act as an advisor to the government
- to supervise / monitor the monetary sector, e.g. private banks
- to act as the lender of last resort
- to administer the clearing house
- to carry out the monetary policy
- to manage the country's foreign exchange reserve (1@, max: 2)

[Mark the **FIRST TWO** points only.]

4.3 MONEY SUPPLY DEFINITIONS: M1, M2 & M3

Multiple Choice Questions

1990/CE/II/32
If Mr. Wong transfers HK$100 from his savings account to his current account,

A. the total amount of bank deposits will increase.
B. the total money supply as measured by M1 will decrease.
C. the total money supply as measured by M2 will not change.
D. the total money supply as measured by M3 will increase.

1991/CE/II/34
Which of the following is a component of Hong Kong's money supply M2?

A. savings deposits with licensed banks
B. time deposits with deposit-taking companies
C. negotiable certificates of deposit held by banks
D. one-thousand-dollar gold coins issued by the Hong Kong government and held by banks

1992/CE/II/32
In Hong Kong, savings deposits with licensed banks are

A. legal tender.
B. included in the money supply M1.
C. included in the money supply M2.
D. included in the money supply M2, but excluded from the money supply M3.

1994/CE/II/43
If an individual receives a cheque for $1 000 from his friend and deposits it in his savings account, Hong Kong's money supply M1 will _____ and M2 will _____.

A. increase; increase
B. remain unchanged; increase
C. decrease; remain unchanged
D. remain unchanged; remain unchanged

1995/CE/II/43
Mr. Chan withdraws $600 000 from his savings deposit with a commercial bank and then deposits $500 000 with a restricted licence bank. The remaining $100 000 is kept at home. The immediate effect is that

A. M1 will increase by $100 000.
B. M2 will decrease by $600 000.
C. M2 will not change.
D. M3 will increase by $500 000.

1996/CE/II/37
Mr. Chan paid $200 000 in cash to buy from Mr. Wong a certificate of deposit issued by a deposit-taking company. Mr. Wong then deposited this $200 000 into his savings account. The immediate effects are

(1) M1 decreases by $200 000
(2) M2 remains unchanged
(3) M3 increases by $200 000

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1) , (2) and (3)

1997/CE/II/35
In Hong Kong, a demand or savings account holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank account to the shop's bank account.

The popular use of EPS in Hong Kong will

A. increase the ability of credit creation of the banking system.
B. increase the buyer's cost of purchasing goods and services.
C. increase the money supply M1 in Hong Kong.
D. enable all bank deposits to act as a medium of exchange.

1997/CE/II/36
Which of the following will increase M1 in Hong Kong?

A. a repayment of HK$5000 by cheque on a bank loan in Hong Kong
B. the lending of HK$5000 in cash by a bank to a citizen in Hong Kong
C. a new deposit of HK$5000 in a savings account with a bank in Hong Kong
D. a withdrawal of HK$5000 in cash from a current account with a bank in Hong Kong

1997/CE/II/37
Suppose the money supply data of Hong Kong is as follows:

	$ billion
Total issue of legal tender	3
Legal tender in circulation	2
Demand deposits	7
Deposits with licensed banks **AND** negotiable certificates of deposit issued by licensed banks (other than those held by authorised institutions)	10
Deposits with restricted licence banks and deposittaking companies **AND** negotiable certificates of deposit issued by restricted licence banks and deposit-taking companies (other than those held by authorised institutions)	80

The money supply M2 is

A. $9 billion.
B. $12 billion.
C. $13 billion.
D. $92 billion.

1998/CE/II/35
In Hong Kong, the users of some services can use the Payment by phone Service (PPS) to pay their bills over the telephone. After registration, they can make a phone call and transfer money from their bank accounts (savings or current) to the bank account of the service provider.

When the use of PPS becomes more popular,

A. The money supply M1 will decrease.
B. The money supply M2 will decrease.
C. The money supply M3 will decrease.
D. The amount of savings or current deposit of banks will decrease.

1998/CE/II/36
Which of the following will cause an immediate change in the money supply of M1 of Hong Kong?

A. You receive $500 cash from your father and deposit it in your current account.
B. You pay $4 000 cash to the landlord, who puts the money in his safe.
C. A fire burnt most of the banknotes kept in a bank.
D. You buy $10 000 worth of furniture with a cheque. The shop owner deposits it into his time deposit account.

1999/CE/II/39
Suppose in a bank in Hong Kong, Mary withdraws HK$3 000 from her saving account and changes it for US dollars in cash. Which of the following statements about the Hong Kong dollar money supply is correct?

A. HK$ M1 will increase while HK$ M2 will remain unchanged
B. HK$ M1 will remain unchanged while HK$ M3 will decrease.
C. Both HK$ M1 and HK$ M3 will remain unchanged.
D. Both HK$ M1 and HK$ M2 will decrease.

2000/CE/II/27
Mr Wong withdraws $500 000 in cash from a deposit-taking company. He then deposits $300 000 with a bank as a time deposit and remits the remaining $200 000 overseas for the settlement of debts. Which of the following about the money supply M1 and M3 is correct?

A. Both M1 and M3 will increase.
B. Both M1 and M3 will decrease.
C. M1 will remain unchanged and M3 will decrease.
D. Both M1 and M3 will remain unchanged.

2000/CE/II/28
Suppose the money supply of Hong Kong in a certain year was as follows:

	$billion
Legal tender in circulation	10
Legal tender held by all deposit-taking institutions	2
Demand deposits with licensed banks	15
Savings and time deposits with licensed banks	60
Negotiable certificates of deposits issued by licensed banks and held by the public	25
Deposits with restricted licence banks and negotiable certificates of deposits issued by restricted licence banks held by the public	32

The money supply M2 (in $ billion) was

A. 85
B. 110
C. 112
D. 144

2001/CE/II/25
In using the Easy Pay System (EPS) to settle a payment in exchange, an amount of money is immediately transferred from the buyer's bank account to the seller's. In response to an increase in EPS's service charge, some shops have stopped accepting payment by EPS.

Which of the following would be the immediate effect of the above change on the money supply M1 and M2?

A. Both M1 and M2 will increase.
B. M1 will increase and M2 will remain unchanged.
C. M1 will increase and M2 will decrease.
D. Both M1 and M2 will decrease.

2002/CE/II/33
'Currency in public circulation' and 'savings deposits' are both included in Hong Kong's money supply

(1) M1.
(2) M2.
(3) M3.

A. (2) only
B. (3) only
C. (1) and (2) only
D. (2) and (3) only

2003/CE/II/32
Mr Chan withdraws HK$50 000 from his savings account with a bank in Hong Kong and remits HK$40 000 through a bank to the U.K. He changes the remaining HK$10 000 into the newly issued HK$10 notes and puts them into his safety deposit box in a bank.

Which of the following would be the immediate effect of the above actions on the Hong Kong dollar money supply?

A. Both the HK$ M2 and M3 will decrease by HK$40 000.
B. HK$ M1 will increase by HK$ 10 000 while HK$ M2 will decrease by HK$50 000.
C. HK$ M2 will decrease by HK$50 000 while HK$ M3 will remain unchanged.
D. HK$ M1 will remain unchanged while HK$ M2 will decrease by HK$40 000.

2004/CE/II/37
Which of the following would decrease the money supply M2 in Hong Kong?

A. Mr Au repays a HK$10 000 loan in cash to a licensed bank in Hong Kong.
B. Mr Bean withdraws HK$20 000 from a savings account with a licensed bank in Hong Kong and holds it as cash.
C. Mr Chan transfers HK$30 000 from his savings account to his current account with a licensed bank in Hong Kong.
D. Mr Ding withdraws HK$40 000 from his time deposit in a restricted licence bank in Hong Kong and remits the money overseas.

2005/CE/II/38
Suppose Mrs Wong withdraws HK$300 000 from her savings deposit with a commercial bank. She converts HK$200 000 of the above amount into Renminbi (人民幣) and deposits it into a Renminbi savings deposit with the same bank. She keeps the remaining HK$ 100 000 at home. The immediate effect of the above events is:

A. Hong Kong dollar money supply M1 would increase by $100 000.
B. Hong Kong dollar money supply M2 would decrease by $300 000.
C. Hong Kong dollar money supply M2 would remain unchanged.
D. Hong Kong dollar money supply M3 would increase by $100 000.

2006/CE/II/35
Mr Chan withdraws HK$20 000 from his deposit in a restricted licence bank in Hong Kong. He later puts HK$15 000 as time deposit in a licensed bank in Hong Kong and holds the remaining HK$5 000 as cash.

The immediate effect of the above actions on the Hong Kong dollar money supply would be:

A. Both M2 and M3 decrease.
B. Both M1 and M2 remain unchanged.
C. M1 increases while M2 remains unchanged.
D. M1 increases while M3 remains unchanged.

2007/CE/II/39
If an individual deposits $600 000 cash into a time deposit account with a deposit-taking company, Hong Kong's money supply M1 will _____ and M2 will _____.

A. decrease ..... decrease
B. decrease ..... remain unchanged
C. remain unchanged ..... increase
D. increase ..... increase

2008/CE/II/37
Suppose, after making a series of unsuccessful add-value transactions through EPS in which their bank accounts were debited, more Octopus cardholders use cash to make their add-value transactions. This would immediately increase

A. the money supply M1.
B. the money supply M2.
C. the amount of savings deposits of banks.
D. the amount of time deposits of banks.

2010/CE/II/39
Grace receives a remittance of HK$530 000 from overseas. She saves HK$500 000 of the total amount as time deposits in a restricted licence bank and the rest as demand deposits in a licensed bank. What will be the immediate effect of the above actions on the money supply of Hong Kong?

A. M1 will increase by HK$30 000 and M2 will increase by HK$530 000.
B. M1 will increase by HK$30 000 and M3 will increase by HK$500 000.
C. M2 will increase by HK$30 000 and M3 will increase by HK$500 000.
D. M2 Will increase by HK$30 000 and M3 will increase by HK$5 30 000.

2012/DSE/I/28
Winnie withdraws HK$500 000 from her time deposit with a deposit-taking company. Then she deposits HK$200 000 as a time deposit and HK$100 000 as a demand deposit with a licensed bank. She keeps $50 000 in a safe at home and remits the remainder overseas.

What will be the immediate effect of the above actions on the Hong Kong dollar money supply?

A. M1 will increase by HK$50 000 and M2 will increase by HK$350 000.
B. M1 will increase by HK$150 000 and M3 will decrease by HK$150 000.
C. M2 will increase by HK$150 000 and M3 will decrease by HK$150 000.
D. M2 will increase by HK$350 000 and M3 will decrease by HK$500 000.

2013/DSE/I/25
Which of the following is included in the money supply M2?

(1) legal tender held by licensed banks
(2) demand deposits with licensed banks
(3) time deposits with restricted licence banks
(4) negotiable certificates of deposit issued by licensed banks held by the non-bank public

A. (2) and (3) only
B. (2) and (4) only
C. (1), (2) and (4) only
D. (1), (3) and (4) only

2015/DSE/I/30
Which of the following transactions would increase the money supply (M2) of Hong Kong?

A. Ms Chan transfers $500 000 from her time deposit account in a restricted licence bank to her time deposit account in a licensed bank.
B. Mr Lee transfers $200 000 from his current account to his savings account in a licensed bank.
C. Mr Man deposits $100 000 cash into his savings account in a licensed bank.
D. Ms Chung deposits $600 000 cash into her time deposit account in a deposit-taking company.

2016/DSE/I/32
Winnie withdraws HK$500 000 from her savings account with a licensed bank. She puts half of it into her current account and deposits the other half at a deposit-taking company. Which of the following shows the immediate effects on the money supply of Hong Kong?

A. M1 increases and M2 decreases.
B. M1 increases and M3 decreases.
C. Both M1 and M2 decrease.
D. Both M2 and M3 decrease.

2017/DSE/I/33
Refer to the following data about Hong Kong's money supply.

Components	$ billion
Total issue of legal tender	300
Legal tender held by all authorised institutions	80
Demand deposits	100
All types of deposits with licensed banks and negotiable certificates of deposit issued by licensed banks (other than those held by authorised institutions)	3 000

The money supply M2 is _____.

A. $320 billion
B. $3 180 billion
C. $3 220 billion
D. $3 300 billion

2019/DSE/I/31

When a Hong Kong citizen transfers $500 000 from her time deposit account with a restricted licence bank to her savings account with a licensed bank,

(1) money supply (M1) will increase.
(2) money supply (M2) will increase.
(3) money supply (M3) will increase.

A. (1) only
B. (2) only
C. (3) only
D. (2) and (3) only

2020/DSE/I/29

The legal tender in Hong Kong held by licensed banks is included in _____.

(1) monetary base
(2) money supply M2
(3) money supply M3

A. (1) only
B. (2) only
C. (2) and (3) only
D. (1), (2) and (3)

Short & Structured Questions

1991/CE/I/5(c)

(i) Name **THREE** types of Hong Kong dollar deposits that a licensed bank in Hong Kong can accept. (3 marks)

(ii) A person has a sum of money and is considering depositing it in a bank. Explain **TWO** factors that would affect his choice among the three types of Hong Kong dollar deposits. (6 marks)

1992/CE/I/3

(a) (i) Which of the following components is/are included in the money supply M1 in Hong Kong? (2 marks)

Cash held by the non-bank public
Savings deposits
Demand deposits
Time deposits

(ii) Explain why cash held by banks in not included in the calculation of M1. (3 marks)

(b) In Hong Kong, Miss Wong puts $1 000 cash into The Hongkong and Shanghai Banking Corporation Limited (HSBC) as a demand deposits.

(i) What would be the immediate effect on M1? Explain. (3 marks)

1993/CE/I/5(c)(i)

Suppose Mr. Chan sells his flat to a friend in Canada and receives an oversea remittance which amounts to HK$3 million. He deposits the HK$3 million in his savings account with a bank in Hong Kong.

Explain the immediate effect on Hong Kong's money supply M_1 and M_2. (4 marks)

1995/CE/10(b)(ii)

In Hong Kong, a demand or savings deposit holder can use an EPS card to pay for his purchases in certain shops. The function of an EPS card is that the amount of money is immediately transferred from the customer's bank deposit account to the shop's bank deposit account.

Explain whether the money supply M2 will be affected when a person uses an EPS card to buy goods. (2 marks)

1996/CE/I/7

The following are the consolidated balance sheets of all commercial banks for January and February in a certain year:

January:

Assets ($mn)		Liabilities ($mn)	
Cash Reserve	40	Demand Deposits	20
Loans	60	Savings Deposits	40
		Time Deposits	40

February:

Assets ($mn)		Liabilities ($mn)	
Cash Reserve	50	Demand Deposits	30
Loans	50	Savings Deposits	40
		Time Deposits	30

According to the above consolidated balance sheets, what are the changes in M1 and M2 from January to February? Show your calculation. (4 marks)

1999/CE/I/5

Define money supply M1 and M2. (4 marks)

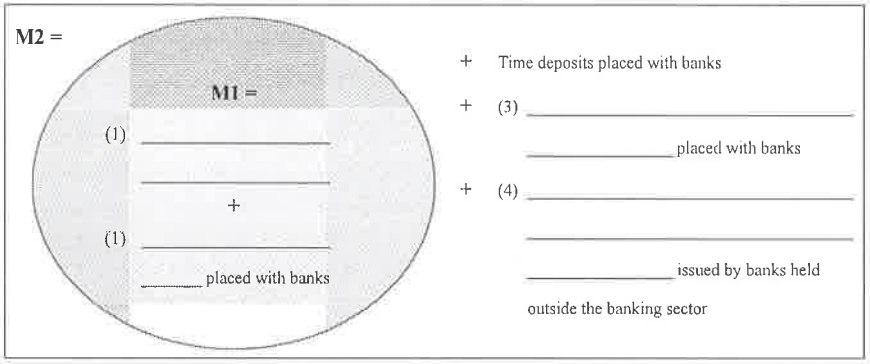
2002/CE/I/6

In Hong Kong, Mr Lee withdrew $300 000 from his savings account in Bank A. He deposited 50% of this amount with a deposit-taking company and remitted through a bank another 20% of this amount overseas. He put the rest of the money in his safety box in Bank B.

What is the immediate effect of the above transactions on Hong Kong's money supply M1 and M3? Explain your answer. (6 marks)

2008/CE/I/6

In Hong Kong, the money supply M2 consists of five components. One is given in the following figure. Fill in the other four components in the appropriate blanks. (4 marks)



2020/DSE/I/8

Study the following balance sheet of the banking system in Country A.

Assets ($million)		Liabilities ($million)	
Reserves	1000	Deposits	4000
Loans	3000		

Suppose the public always hold $800 million cash and the banking system does not hold excess reserves.

(a) Find the monetary base and money supply in Country A. (2 marks)

(b) Suppose firms withdraw $700 million from the banking system and remit the whole amount overseas.

(i) Find the change in monetary base in Country A. (1 mark)

(ii) Calculate the maximum possible change in money supply in Country A. Show your workings. (3 marks)

(c) Instead of obtaining bank loans to finance the infrastructure development, it is suggested that Ocean Park can be listed in the stock market and issue shares to raise capital. State **TWO** advantages of issuing shares over obtaining loans from banks for raising capital. (2 marks)

MARKING SCHEME

1990/CE/II/32 C	1997/CE/II/35 A	2000/CE/II/27 C	2005/CE/II/38 A (53%)	2013/DSE/I/25 B (41%)
1991/CE/II/34 A	1997/CE/II/36 B	2000/CE/II/28 B	2006/CE/II/35 D (61%)	2015/DSE/I/30 A (70%)
1992/CE/II/32 C	1997/CE/II/37 B	2001/CE/II/25 B	2007/CE/II/39 A (49%)	2016/DSE/I/32 A (76%)
1994/CE/II/43 C	1998/CE/II/35 D	2002/CE/II/33 D (52%)	2008/CE/II/37 A (66%)	2017/DSE/I/33 C (43%)
1995/CE/II/43 A	1998/CE/II/36 D	2003/CE/II/32 A (43%)	2010/CE/II/39 D (48%)	2019/DSE/I/31 B
1996/CE/II/37 A	1999/CE/II/39 B	2004/CE/II/37 A (23%)	2012/DSE/I/28 B (69%)	2020/DSE/I/29 A

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/I/5(c)

(i) - demand deposit
- savings deposit
- fixed deposit
- certificates of deposit (1@, max: 3)

[Mark the **FIRST THREE** points only.]

(ii) - Liquidity:
Is it easily convertible into cash? [Demand deposit is the most liquid.]
- Returns in terms of interest:
How much returns does it yield? [Certificates of deposit offer the highest interest rate.]
- Certainty in interest earned:
Does it involve any risk? [The interest on fixed deposit is certain, and the deposit itself is also protected by the Deposit Protection Scheme in Hong Kong (, whereas a CD is not).] (3@, max: 6)

[Mark the **FIRST TWO** points only.]

1992/CE/I/3

(a) (i) Cash held by non-bank public (1)
Demand deposits (1)
[Each incorrect component mentioned - deduct 1 mark]

(ii) It cannot fulfill the function of money as a medium of exchange. (3)

(b) (i) M1 unchanged, because (1)
cash held by the public decreased by $1 000
demand deposits increased by $1 000
OR
they counteract each other (2)

1993/CE/I/5(c)(i)

M_1: no change; (1)
M_2: increased (by $3 million), because (1)
savings deposits are included in M_2 but not in M_1. (2)

1995/CE/10(b)(ii)
Not affected, because (1)
both the customer's bank deposit and the shop's bank deposit are included in M2. (1)

1996/CE/I/7
ΔM1 = change in the amount of cash held by the non-bank public + change in the demand deposits with licensed banks
= $(40 - 50) mn. + $(30 - 20) mn. = 0 (2)

ΔM2 = ΔM1 + change in the time and saving s deposits with licensed banks + change in the negotiable certificates of deposit issued by licensed banks and held by the non-bank public
= 0 + $[(40 + 30) - (40 + 40)] mn.
= -$10 mn. (2)

1999/CE/I/5
M1 = currency in the hands of the non-bank public + demand deposits (2)
M2 = M1 + saving deposits + time deposits held with banks + negotiable certificates of deposit issued by banks held outside the monetary sector. (2)

2002/CE/I/6
M_1 increased (1)
by $90 000, because (1)
the legal tender notes and coins held by the public increased. (1)

M_3 decreased (1)
by $60 000, because (1)
this amount was no longer included in the cash in public circulation in HK or in the deposits with the monetary sector of HK. (1)
[Remark: Mere mentioning of the definition of M_1 and/or M_3 - NO marks]

2008/CE/I/6
(1) legal tender notes and coins held by the non-bank public (1)
(2) demand deposits (1)
(3) savings deposits (1)
(4) negotiable certificates of deposit (1)

2020/DSE/I/8

8a) Monetary base = Cash held by public + Reserve of commercial bank = 800 + 1000 = 1800 (1 mark)

Money Supply = Cash held by public + Total deposit = 800 + 4000 = 4800 (1 mark)

b) Change of monetary base = change of cash held by public + change of reserve
= 0 + (- 700)
= - 700 (1 mark)

c) New Maximum deposit after the withdrawal = (1000 – 700) x maximum banking multiplier = 300 x 4 = 1200

Change of deposit = 1200 – 4000 = - 2800 (1 mark)

Change of money supply = change of cash held by public + change of deposit
= 0 – 2800
= -2800 (2 marks)

2020/DSE/II/9C

C) Do not have interest obligation
Do not have redemption pressure
(2 marks)

4.4 DEPOSIT CREATION

Multiple Choice Questions

1990/CE/II/45
Which of the following will increase the money supply in an economy?

A. A citizen withdraws cash from a bank and keeps it in a safe.
B. A manufacturer repays a bank loan.
C. A bank grants a loan to a real estate developer.
D. A bank increases the amount of excess reserves it holds.

1991/CE/II/31
The withdrawal of money from banks causes

A. a decrease in the value of the maximum possible banking multiplier.
B. a decrease in the cash reserves held by banks.
C. an increase in the deposits created.
D. a decrease in the minimum legal reserve ratio.

1991/CE/II/32
Bank A has total deposits of $ 1 000 million. Its reserves are $ 240 million. Suppose the reserve ratio required by the government is 25 %. Which of the following will help Bank A fulfil reserve requirement?

A. Bank A increases its lending to customers by $ 40 million.
B. Bank A borrows $ 10 million from the inter-bank market.
C. Customers increase deposits with Bank A by $ 10 million.
D. Customers withdraw deposits from Bank A by $ 40 million.

1992/CE/II/34
Assuming that a 20% reserve ratio is required by law, when the banking system has excess reserves of $20 000, it can at most increase its deposits by

A. $80 000.
B. $100 000.
C. the amount of its total reserves.
D. the amount of its excess reserves.

1992/CE/II/35
The table below shows the total reserves, loans, and deposits of a bank:

Assets ($)		Liabilities ($)	
Reserves	200	Deposits	500
Loans	300		

From the table, we can say that

A. the legal minimum reserves are $200.
B. the bank holds excess reserves of $100.
C. the actual banking multiplier is 4.
D. the actual reserve ratio is 40%.

1992/CE/II/32
The following is a balance sheet of a banking system. The required reserve ratio is 20%

Assets ($)		Liabilities ($)	
Reserves	150	Deposits	1 000
Loans	850		
Total	1 000		1 000

Which of the following statements about the banking system is correct?

A. It has excess reserves.
B. It has to increase its reserves by $100.
C. It has to reduce loans by a total of $250.
D. The deposit multiplier is 4.

1994/CE/II/40
If the required reserve ratio for banks is 100%, which of the following is correct?

A. The money supply will not change if banks accept deposits from the public.
B. The total amount of bank loans must be equal to the total amount of deposits.
C. Banks have no chance to make profits.
D. The banking multiplier is zero.

1994/CE/II/42
Suppose the required minimum reserve ratio for banks is 25%. The table below shows the balance sheet of a certain bank.

Assets ($)		Liabilities ($)	
Reserves	600	Deposits	1 500
Loans	900		

Which of the following statements is correct?

A. The actual reserve ratio of the bank is 45%.
B. The excess reserves of the bank is $300.
C. The banking multiplier is 5.
D. The banking system can expand its loan to customers by a maximum of $900.

1995/CE/II/42
Suppose the legal reserve ratio is 100%. If a person deposits $500 cash into his current account,

(1) the currency in circulation will decrease by $500.
(2) the bank deposits will remain unchanged.
(3) the bank loans will increase by $500.
(4) the money supply will remain unchanged.

A. (1) and (2) only
B. (1) and (4) only
C. (2) and (3) only
D. (3) and (4) only

For Questions 35 and 36, refer to the following balance sheet of the banking system

Assets ($)		Liabilities ($)	
Cash reserve	250	Deposits	1 000
Loans	750		

Assume that legal minimum reserve ratio is 25 % and a person withdraws $ 40 from a bank.

1996/CE/II/35
How much would the cash reserve in the banking system fall short of the legal requirement?

A. $10
B. $20
C. $30
D. $40

1996/CE/II/36
What would be the maximum amount of deposits that the banking system can hold after the withdrawal?

A. $750
B. $840
C. $880
D. $960

1997/CE/II/33
Suppose the legal reserve ratio is 25%. If a person deposits $200 cash into his savings account, the maximum possible change in

A. bank loans is an increase of $800.
B. bank reserves is an increase of $200.
C. M1 is a decrease of $50.
D. M2 is an increase of $800.

1997/CE/II/34
If a $100 deposit of newly-printed money into a bank results in a $400 increase in the total deposit of the banking system, we can conclude that

A. the banking multiplier of the above deposit creation is 4.
B. the legal reserve ratio is 0.25.
C. the money supply increases by $500.
D. there is no cash leakage.

1998/CE/II/33
Study the following balance sheet of Bank B.

Assets ($)		Liabilities ($)	
Reserves	1 000	Deposits	3 000
Loans	2 000		

Suppose the required reserve ratio for banks is raised from 20% to 25%, what will be the decrease in Bank B's excess reserves?

A. $150
B. $250
C. $400
D. $600

1998/CE/II/34
Suppose the required reserve ratio for banks is 20%. The table below shows the balance sheet of the banking system.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	1 000
Loans	500		

Which of the following statements is correct?

A. The excess reserves of the banking system is $200.
B. The actual banking multiplier of the banking system is 5.
C. The banking system can expand its total deposits to $5 000.
D. The maximum amount of loans the banking system can make is $2 000

1998/CE/II/52
An amount of cash deposited into a bank will **NOT** lead to

A. an increase in bank loan made to the public
B. an increase in the total deposits of the banks.
C. an increase in the value of the maximum banking multiplier.
D. an increase in the cash reserves held by banks.

1999/CE/II/36
Refer to the following balance sheet of a banking system

Assets ($)		Liabilities ($)	
Reserves	100	Deposits	400
Loans	300		

The legal reserve ratio is 20%. Suppose that all banks loan out their excess reserves and all loans are re-deposited into the baking system.

After the credit creation process is completed, the amount of reserves held by banks is _____ and the amount of loans will increase by _____.

A. less than $100 ..... more than $100
B. equal to $100 ..... $100
C. equal to $100 ..... more than $100
D. more than $100 ..... less than $100

1999/CE/II/38
Which of the following would reduce the amount of deposits created in the process of multiple credit creation?

A. An increase in the holding of cash by the public
B. An increase in the use of cheques by the public
C. An increase in the use of electronic money by the public
D. An increase in the bank loans made to the public

2000/CE/II/29
A bank accepts a deposit of $1 000 from a foreign country. Through the credit creation process, the amount of deposit of the whole banking system increases by $4 000.
Base on the above information, we can conclude that

A. The legal reserve ratio is 25%
B. Banks do not keep excess reserves.
C. The total money supply has increased by at least $4 000.
D. There is a cash leakage in the credit creation process.

2000/CE/II/30
As the use of the Octopus card (八達通卡) for public transport becomes much more popular,

A. The money supply will increase because the card can perform the functions of money.
B. The volume of the legal tender in circulation will drop.
C. The value of money will drop because the demand for cash will be smaller.
D. The maximum amount of deposits created by the banking system will decrease.

2001/CE/II/26
The following is the balance sheet of banking system.

Assets ($)		Liabilities ($)	
Reserves	200	Deposits	600
Loans	400		

Suppose the legal reserve ratio of the banking system is 20%. If all banks no longer hold excess reserves, the maximum increase in bank deposits is

A. $80
B. $160
C. $400
D. $1 000

Answer Questions 35 and 36 by referring to the following balance sheet of a banking system which has an excess reserve of $200.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	1 200
Loans	700		

2002/CE/II/35
The required reserve ratio is

A. 15%
B. 20%
C. 25%
D. 30%

2002/CE/II/36
Suppose someone has withdrawn $250 from the banking system. As a result, what would the maximum possible amount of bank deposits be?

A. $200
B. $600
C. $800
D. $1 000

2002/CE/II/37
Which of the following will reduce the deposit creation ability of the banking system?

(1) an increase in the use of credit cards by the public
(2) an increase in the amount of cash held by the public
(3) an increase in the legal reserve requirement for banks

A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2002/CE/II/38
Assume the whole banking system does not hold excess reserves and the required reserve ratio is 20%. If a person withdraws $100 from a bank,

A. the amount of loans made by the banks to the public will fall by at most $400.
B. money supply will fall by at least $400.
C. the amount of deposits in the banking system will fall by at least $500.
D. the amount of cash reserve of the banks will fall by at most $80.

2003/CE/II/34
If the actual reserve is larger than the required reserve in a banking system, it follows that

A. there is cash leakage in the banking system.
B. some banks decide to hold excess reserves.
C. the demand for loans is insufficient.
D. the banking system can create more deposits.

Answer Questions 35 and 36 by referring to the following balance sheet of a banking system. Suppose the required reserve ratio is 20%.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	2 000
Loans	1 500		

2003/CE/II/35
Which of the following statements about the above banking system is correct?

A. The maximum banking multiplier is 4.
B. The maximum possible increase in loans will be the same as the maximum possible increase in deposits.
C. The actual reserve ratio is equal to the required reserve ratio.
D. The amount of reserves will decrease if all banks loan out their excess reserves.

2003/CE/II/36
If the government increases the required reserve ratio to 40%, which of the following statements about the above banking system is correct?

A. The amount of reserves will increase to $800.
B. The amount of deposits will not change.
C. The maximum amount of loans will be $750.
D. The maximum amount of deposits will be $1 600.

2004/CE/II/38
The following table shows the balance sheet of a bank in an economy:

Assets ($)		Liabilities ($)	
Cash reserves	500	Deposits	1 250
Loans and investments	750		

Suppose its customers withdraw $50 cash from the bank. Immediately after the withdrawal, the cash reserves and the deposits would be _____ and _____ respectively.

A. $450 ..... $1 200
B. $450 ..... $1 250
C. $500 ..... $1 200
D. $500 ..... $1 250

2004/CE/II/39
Refer to the following balance sheet of a banking system which has an excess reserve of $200.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	1 500
Loans	1 000		

Suppose $300 worth of deposits is withdrawn from the banking system. What will the maximum possible amount of bank deposits be?

A. $500
B. $1 000
C. $1 200
D. $6 000

2005/CE/II/37
Below is the balance sheet of a banking system.

Assets ($)		Liabilities ($)	
Cash reserves	500	Deposits	2 000
Loans	1 500		

Suppose the banking system has no excess reserves. After a withdrawal of $100 from the banks, the maximum possible amount of deposits of the banking system would be

A. $1 600
B. $1 700
C. $1 800
D. $1 900

2005/CE/II/50
The central bank of Country B increases the legal reserve ratio in order to discourage the overheating activities of lending and borrowing in the economy. Suppose the banking system has no excess reserves. The above measure adopted by the central bank would **NOT** reduce

A. the ability of deposit creation of the banking system.
B. the amount of reserves of the banking system.
C. the banking multiplier.
D. the money supply.

2006/CE/II/36
The table below shows the balance sheet of a banking system. The amount of its excess reserves is $800.

Assets ($)		Liabilities ($)	
Reserves	1 000	Deposits	2 000
Loans	1 000		

Which of the following statements about the banking system is correct?

A. The required reserve ratio is 50%.
B. The maximum amount of deposits is $8 000.
C. The maximum banking multiplier is 5.
D. The actual banking multiplier is 2.

2006/CE/II/37
During the period around Lunar new year every year, many people in Hong Kong withdraw cash from their deposit accounts with banks. Thus the amount of cash held by the public increases.

Which of the following is a definite consequence of the above situation?

A. The value of the maximum banking multiplier of the banking system of Hong Kong decreases.
B. The maximum possible amount of deposits of the banking system of Hong Kong decreases.
C. The amount of bank loans made to the public decreases.
D. The money supply of Hong Kong decreases.

2006/CE/II/38
Which of the following may reduce the size of the actual banking multiplier of a banking system?

A. an increase in the use of cheques by the public
B. an increase in the demand for bank loans
C. an increase in the risk of non-repayment of bank loans
D. a reduction in the required reserve ratio

2007/CE/II/36
The table below shows the balance sheet of a banking system, which has an excess reserve of $50.

Assets ($)		Liabilities ($)	
Reserves	250	Deposits	1 000
Loans	750		

Which of the following is correct?

A. The required reserve ratio is 25%.
B. The actual reserve ratio is 20%.
C. If $100 cash is deposited into the banking system, the total amount of deposits will be $1500.
D. If $100 is withdrawn from the banking system, the maximum possible total deposits will be $750.

2008/CE/II/38
Study the following balance sheet of a banking system which never holds excess reserves.

Assets ($)		Liabilities ($)	
Reserves	600	Deposits	3 000
Loans	2 400		

Suppose the public in this economy always holds the same amount of cash. If $200 is withdrawn from the bank deposits, the maximum possible amount of loans of the banking system would become _____.

A. $1 200
B. $1 600
C. $2 000
D. $2 200

2008/CE/II/39
Which of the following will increase the maximum banking multiplier?

A. Octopus cards are widely used.
B. The economy grows fast and investment opportunities flourish.
C. Banks keep more reserves to avoid the risk of bank runs.
D. Commercial banks are allowed to increase the proportion of customers' deposits that can be loaned out.

2009/CE/II/38
Suppose the actual banking multiplier is smaller than the maximum banking multiplier in a certain banking system. Which of the following would be a possible reason for this?

A. There is insufficient demand for bank loans.
B. The banking system is facing a reserve shortage.
C. The maximum possible amount of total deposits of the banking system will decrease.
D. The actual reserve ratio is smaller than the required reserve ratio.

2009/CE/II/39
Below is the balance sheet of a banking system which has $50 excess reserves.

Assets ($)		Liabilities ($)	
Reserves	350	Deposits	1 200
Loans	850		

Suppose all banks lend out their excess reserves and all loans will be redeposited into the banking system. After the deposit creation process is completed, the amount of reserves held by banks would be _____ and the amount of loans would be _____.

A. $300 ..... $1 400
B. $300 ..... $1 100
C. $350 ..... $1 400
D. $350 ..... $1 050

2010/CE/II/35
The maximum banking multiplier of a banking system will decrease when

A. the amount of excess reserves held by banks increases.
B. the required reserve ratio increases.
C. the amount of cash leakage from the banking system increases.
D. the demand for loans decreases.

2010/CE/II/36

Assets ($)		Liabilities ($)	
Reserves	2 500	Deposits	10 000
Loans	7 500		

The above table shows the balance sheet of a banking system which has an excess reserve of $5 00. Suppose the public withdraw $1 000 cash from the banking system. If the banks do not hold any excess reserves and there is no cash leakage, what will happen eventually after the process of deposit contraction is completed?

A. Bank deposits will fall by $5 000.
B. Bank loans will fall by $2 500.
C. The money supply will fall by $1 500.
D. Both B and C are correct.

2012/DSE/I/27
The table below shows the balance sheet of a banking system.

Assets ($ million)		Liabilities ($ million)	
Reserves	400	Deposits	1 000
Loans	600		

Suppose the required reserve ratio for the banking system is 25%. Which of the following statements is correct?

A. The excess reserves of the banking system are $200 million.
B. The actual banking multiplier of the banking system is 4.
C. The banking system can expand its total deposits to $1 600 million.
D. The maximum amount of loans the banking system can make is $1 000 million.

2013/DSE/I/26
Initially, a banking system has an excess reserve of$160 million and the public holds $200 million cash. The balance sheet of the banking system is as follows:

Assets ($ million)		Liabilities ($ million)	
Reserves	400	Deposits	1 200
Loans	800		

Suppose $100 million is withdrawn from the banking system and held as cash by the public. What will the money supply be if the banks lend out all excess reserves?

A. $1 500 million
B. $1 700 million
C. $1 800 million
D. $2 300 million

2014/DSE/I/30
Refer to the following balance sheet of a banking system.

Assets ($ million)		Liabilities ($ million)	
Reserves	400	Deposits	1 200
Loans	800		

Suppose the required reserve ratio is 25%. If all banks loan out their excess reserves, which of the following statements about the above banking system is correct?

A. The amount of reserves held by the banks will decrease.
B. The maximum banking multiplier will increase.
C. The money supply will remain unchanged.
D. The maximum possible increase in loans will be the same as the maximum possible increase in deposits.

2016/DSE/I/31
Refer to the following balance sheet of a banking system. Its excess reserve is $125 million.

Assets ($ million)		Liabilities ($ million)	
Reserves	250	Deposits	500
Loans	250		

Which of the following statements is **INCORRECT?**

A. The required reserve ratio is 25%.
B. The maximum amount of loans is $750 million.
C. The banking system can expand its total deposit to $1 000 million.
D. The actual banking multiplier is 4.

2016/DSE/I/33
In a fractional reserve banking system, the actual deposit created is often below the maximum possible deposit created. The gap between these two amounts will be narrowed when

A. the popularity of electronic payment increases.
B. the central bank tightens the restrictions imposed on mortgage loans from banks.
C. the central bank buys bonds from the public.
D. the central bank reduces the legal reserve ratio for banks.

2017/DSE/I/31
The following table shows the balance sheet of a banking system.

Assets ($ million)		Liabilities ($ million)	
Reserves	300	Deposits	900
Loans	600		

Suppose the public does not hold cash and the required reserve ratio is reduced to 25%. After deposit creation, the amount of loans in the banking system is $750. Which of the following statements about the banking system is correct?

A. The money supply increases by $300.
B. The actual banking multiplier is 3.5.
C. The deposits increase by $600.
D. Bank reserves are $450.

2019/DSE/I/28

The following table shows the balance sheet of Country A's banking system. The money supply in Country A is $2 800 and all banks do not hold excess reserves.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	2 500
Loans	2 000		

Suppose the public deposits $200 cash into the banking system. Which of the following statements about the banking system is correct after the deposit creation process is completed?

A. The deposits would increase by $3 500.
B. The money supply would increase by $1 000.
C. The monetary base would increase by $200.
D. The loans will increase by $800.

2020/DSE/I/33

Which of the following will increase the actual banking multiplier?

A. The public tends to hold more cash.
B. The use of credit card becomes more popular.
C. The central bank increases the required reserve ratio.
D. The interest rate of bank deposit decreases.

Short & Structured Questions

1990/CE/2/(d)(ii)
Suppose the banks in Hong Kong do not hold excess reserves and the legal minimum reserve ratio is 25%. Mr Chan withdraws HK$10 000 from his savings account with Bank A and keeps the money at home.

(I) Calculate the amount of reserves by which Bank A is falling short of the legal requirement. Suggest **ONE** possible way that Bank A can satisfy the reserve requirement again. (5 marks)

(II) Calculate the maximum possible change in the total deposits of the banking sector. (3 marks)

1991/CE/I/5(b)
Suppose there are only two banks, A and B, in an economy. They are subject to the same required cash reserve ratio. Bank B has no excess cash reserves. Their balance sheets are as follows:

Bank A

Assets ($)		Liabilities ($)	
Cash	50	Deposits	100
Loans	50		

Bank B

Assets ($)		Liabilities ($)	
Cash	200	Deposits	800
Loans	600		

(i) Calculate the required cash reserve ratio in the economy. (2 marks)

(ii) Calculate the amount of excess cash reserves of Bank A. (2 marks)

(iii) Now assume Bank A chooses not to hold excess cash reserves. Calculate the maximum possible increase in the deposits created by the whole banking system. (3 marks)

State **TWO** assumptions, other than those mentioned above, in arriving at your answer. (4 marks)

1992/CE/I/3(b)(ii)
In Hong Kong, Miss Wong puts $1 000 cash into The Hongkong and Shanghai Banking Corporation Limited (HSBC) as a demand deposit.

Explain **TWO** situations under which this $1 000 deposit will not lead to a further increase in deposits. (6 marks)

1993/CE/I/5(c)(ii)
Suppose Mr. Chan sells his flat to a friend in Canada and receives an oversea remittance which amounts to HK$3 million. He deposits the HK$3 million in his savings account with a bank in Hong Kong.

Given a reserve ratio of 25%, calculate the possible maximum increase in deposit (including the initial $3 million) of the local banking system. Show your working. (3 marks)

1994/CE/I/5
Suppose in a certain economy all the banks keep no excess reserves, and their balance sheet is as follows:

Assets ($)		Liabilities ($)	
Reserves	240	Deposits	1 200
Loans	960		

Suppose someone deposits $100 cash into his bank. What will be the maximum amount of deposits (including the initial $100) the banking system can create? Show your working. (4 marks)

1995/CE/I/10/(a)(iii)
The audience withdrew $M from their deposits with banks in the US to buy the concert tickets. Suppose the required reserve ratio of US banks was 20%, they never kept excess reserve and there was no cash drain. What would happen to the amount of the total deposit of banks in the US after the withdrawal and donation to Rwanda? Explain briefly the changing process. (8 marks)

1996/CE/I/11(c)
Suppose a newspaper publisher raises $5 million capital by issuing shares and deposits the full amount into the banks in Hong Kong. Assume that the required reserve ratio of the banks in Hong Kong is 25 % that they do not hold excess reserves and that there is no cash leakage.

Explain what would happen to the amount of the total deposit of the banks in Hong Kong after the shares issuing is complete if

(i) all the shares are purchased by local people who withdraw deposits from their banks in Hong Kong. (3 marks)

(ii) all the shares are purchased by foreigners who remit the money required from overseas to settle the purchase. (4 marks)

1997/CE/I/9(c)
Suppose the government builds a railway in northwest New Territories.
Suppose that the banks in Hong Kong have no excess reserves and the minimum reserve ratio is 25% and that $10 billion is borrowed overseas to construct the new railway.

Using the process of deposit creation, explain why the actual amount of bank deposits thus created in Hong Kong is smaller than the maximum amount of bank deposits can be created. (8 marks)

1998/CE/I/9(a)
Mr Wong received a remittance of HK$1 million from abroad and deposited the entire sum in a bank in Hong Kong. Later he used part of the money to buy shares and the rest to set up a restaurant.
Suppose the required reserve ratio of the banks in Hong Kong is 25% and the banks have no cash leakage and do not keep excess reserves.

Explain briefly the process of deposit creation of the local banking system caused by the injection of $1 million. Calculate the total amount of deposits created (including the initial $1 million). (8 marks)

1999/CE/I/6(a)
Suppose the legal reserve ratio for banks is 25 % and Bank A does not keep excess reserves. Aaron won an overseas scholarship and received a remittance of $10 000. He deposited it in Bank A. Bank A lent out all the excess reserves to GiGi. She then deposited the money into Bank B, but Bank B could not find any borrowers.

Calculate the amount of deposits thus created in the economy. (4 marks)

2000/CE/I/10(a)
The balance sheet of the banking system of Economy A is shown below. Suppose all banks do not hold excess reserves and the public holds $50 mn cash in hand.

Assets ($ mn)		Liabilities ($ mn)	
Cash reserves	200	Deposits	1 000
Loans	800		

Suppose the public now withdraws $10 million cash from the banks.

(i) Calculate the change in the total deposits of the banking system. (3 marks)

(ii) Calculate with explanation the change in the money supply. (4 marks)

2001/CE/I/10(b)
The balance sheet of a banking system is as follows:

Assets ($m)		Liabilities ($m)	
Reserves	250	Deposits	1 000
Loans	750		

(i) Given that the legal reserve ratio is 20%, calculate the actual reserve ratio and the amount of excess reserve of the banking system. (4 marks)

(ii) A depositor withdraws $40 m from the banking system and invests the money overseas. If all banks lend out their remaining excess reserves, what is the maximum possible amount of total deposits in the banking system? Explain your answer. (4 marks)

2002/CE/I/10(a)
The balance sheet of a banking system is as follows:

Assets ($mn)		Liabilities ($mn)	
Reserves	20	Deposits	100
Loans	80		

The public deposits $10 million of cash into the banking system.

(i) Suppose the banks do not hold excess reserves. Calculate the maximum possible change in the money supply. Explain your answer. (5 marks)

(ii) Give **TWO** possible reasons why the actual change in the money supply could be less than the maximum possible change. (4 marks)

2003/CE/I/11
(b) (ii) Using the process of deposit creation, explain how a decrease in demand for loans could affect the deposit creation ability of the banking system. (4 marks)

(c) Suppose the banking system has an excess reserve of $50 million and its balance sheet is as follows:

Assets ($m)		Liabilities ($m)	
Reserves	250	Deposits	1 000
Loans	750		

What is the maximum possible amount of total deposits in the banking system if no banks hold excess reserves? Show your workings. (4 marks)

2004/CE/I/6(b)
The balance sheet of Economy A's banking system is shown below. The public in this economy always holds $50 million in cash. Initially, the excess reserve of the banks is $100 million

Assets ($mn)		Liabilities ($mn)	
Reserves	500	Deposits	2 000
Loans	1 500		

Suppose $140 million worth of deposits is withdrawn from these banks and remitted overseas

Explain briefly the process of deposit contraction of the above withdrawal. (4 marks)

2005/CE/I/5
Study the following balance sheet of a banking system:

Assets ($mn)		Liabilities ($mn)	
Reserves	120	Deposits	1 000
Loans	880		

Suppose the legal reserve ratio is 10%

(a) Calculate the amount of excess reserve of the banking system. (2 marks)

(b) Suppose all banks lend out all their excess reserves. Calculate the maximum possible amount of total deposits in the banking system. (2 marks)

2006/CE/I/6
The following is the balance sheet of a banking system.

Assets ($)		Liabilities ($)	
Reserves	500	Deposits	1 500
Loans	1 000		

(a) Suppose the excess reserve of the banks is $350. What is the required reserve ratio?

The required reserve ratio is_____ %. (1 mark)

(b) Suppose there is a cash withdrawal of $350 from the banks. Explain whether the banks still have excess reserves immediately after the withdrawal. (3 marks)

2007/CE/I/7
Study the following balance sheet of a banking system:

Assets ($)		Liabilities ($)	
Reserves	1 700	Deposits	7 500
Loans	5 800		

Suppose the legal reserve ratio is 20%.

(a) The excess reserve of the banking system is $_____. (1 mark)

(b) Suppose Mr Chan withdraws $100 from the banking system, of which 70 % is held as cash and the rest is remitted overseas.

(i) The immediate change in total deposits of the banking system is_____. (1 mark)

(ii) Therefore, the immediate change in the overall amount of the money supply is_____. (2 marks)

2008/CE/I/10
The government may reduce the money supply to cool down the overheated economy. The balance sheet of the banking system is as follows:

Assets ($ million)		Liabilities ($ million)	
Reserves	1 000	Deposits	5 000
Loans	4 000		

Suppose the public in this economy always holds the same amount of cash and the banking system never holds excess reserves. The central bank increases the minimum reserve ratio of the banks by 5%.

(a) Explain briefly the process of deposit contraction resulting from the above change in. the reserve ratio. (4 marks)

(b) Calculate and explain the change in money supply in the economy resulting from the above deposit contraction. (5 marks)

2009/CE/I/6
Study the following balance sheet of a banking system:

Assets ($)		Liabilities ($)	
Reserves	300	Deposits	1 000
Loans	700		

Suppose the legal reserve ratio is 20%.

(a) Calculate the excess reserve of the banking system. (2 marks)

(b) Suppose all the excess reserve is loaned out. Calculate the maximum possible amount of total deposits in the banking system. (2 marks)

2010/CE/I/11(b)
The 2008 financial tsunami had a huge impact on Economy A.

Suppose the balance sheet of the banking system was as follows:

Assets ($ million)		Liabilities ($ million)	
Reserves	2 000	Deposits	8 000
Loans	6 000		

During the credit crisis, the banks increased the reserve ratio to 40% for safety purposes. This resulted in a change in the bank deposits.

(i) Calculate the maximum possible change in the bank deposits. (3 marks)

(ii) Explain briefly the process of deposit contraction resulting from the above change in the reserve ratio. (4 marks)

(Note: Although the topic of deposit creation was included in the HKAL syllabus, most questions are out of the current DSE syllabus, and the focus of the rest was mainly on the concepts of monetary base and monetary policy.)

1997/AL/II/9
Consider the following balance sheet of a banking system.

Assets ($)		Liabilities ($)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Assumes that the public does not hold any cash.

(a) Suppose banks are fully loaned up. What is the required reserve ratio? (1 mark)

(b) Suppose the maximum demand for loan is $4 500. Since the banking system has only extended $3 000 in loan, there is still an excess demand for loan of $1 500. If the government changes the required ratio to 10%, what will be the money supply? Explain your answer. (5 marks)

(c) Based on your answer in (b), comment on whether a government can completely control the money supply. (4 marks)

1998/AL/II/9
Consider the following balance sheet of a banking system.

Assets ($)		Liabilities ($)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Suppose the public holds $500 cash and the banks are fully loaned up.

(a) What is the money supply? (2 marks)

(b) Suppose the public only wants to hold $400 cash and deposits any excess cash into the banking system. Explain the impact of this on the balance sheet of the banking system and on the money supply in the economy in each of the following two situations.

(i) Banks cannot lead out any amount of the excess reserves. (3 marks)

(ii) Banks can lead out all the excess reserves. (3 marks)

(c) Using your results in (a) and (b), explain the impact on the money supply of a reduction in the public's desire to hold cash. (2 marks)

2017/DSE/II/8
The following table shows the balance sheet of a banking system which has excess reserves of $250.

Assets ($ million)		Liabilities ($ million)	
Reserves	1 000	Deposits	3 000
Loans	2 000		

(a) Find the required reserve ratio. (1 mark)

(b) Suppose the banks lend out all excess reserves and the public does not hold cash, Calculate the change in deposits after credit creation, Show your working, (2 marks)

2019/DSE/II/7

The following is the balance sheet of a banking system.

Assets ($million)		Liabilities ($million)	
Reserves	300	Deposits	1000
Loans	700		

Suppose the legal reserve ratio is 20% and the public holds $200 million cash.

(a) Calculate the excess reserves of the banking system. (1 mark)

(b) Suppose the public no longer holds cash and all banks lend out all excess reserves. Calculate the maximum possible change in money supply. Show your workings. (4 marks)

2021/DSE/II/6

The following table shows the balance sheet of a banking system.

Assets ($ million)		Liabilities ($ million)	
Reserves	600	Deposits	1 500
Loans	1 200		

Initially the banks hold excess reserves of $300 million and the public always holds $100 million cash.

(a) Find the required reserve ratio. (1 mark)

(b) Suppose the required reserve ratio is reduced by 5% and banks lend out all excess reserves. Calculate the new money supply after the credit creation/contraction. Show your workings. (3 marks)

MARKING SCHEME

1990/CE/II/45 C	1996/CE/II/36 B	2001/CE/II/26 C	2005/CE/II/37 A (57%)	2010/CE/II/35 B (68%)
1991/CE/II/31 B	1997/CE/II/33 B	2002/CE/II/35 C (84%)	2005/CE/II/50 B (46%)	2010/CE/II/36 C (43%)
1991/CE/II/32 B	1997/CE/II/34 A	2002/CE/II/36 D (56%)	2006/CE/II/36 D (61%)	2012/DSE/I/27 C (71%)
1992/CE/II/34 B	1998/CE/II/33 A	2002/CE/II/37 C (59%)	2006/CE/II/37 B (57%)	2013/DSE/I/26 C (58%)
1992/CE/II/35 D	1998/CE/II/34 D	2002/CE/II/38 A (25%)	2006/CE/II/38 C (37%)	2014/DSE/I/30 D (56%)
1992/CE/II/32 C	1998/CE/II/52 C	2003/CE/II/34 D (17%)	2007/CE/II/36 D (49%)	2016/DSE/I/31 D (65%)
1994/CE/II/40 A	1999/CE/II/36 B	2003/CE/II/35 B (24%)	2008/CE/II/38 B (39%)	2016/DSE/I/33 A (deleted)
1994/CE/II/42 D	1999/CE/II/38 A	2003/CE/II/36 C (16%)	2008/CE/II/39 D (60%)	2017/DSE/I/31 B (36%)
1995/CE/II/42 B	2000/CE/II/29 C	2004/CE/II/38 A (73%)	2009/CE/II/38 A (44%)	2019/DSE/I/28 D
1996/CE/II/35 C	2000/CE/II/30 B	2004/CE/II/39 B (34%)	2009/CE/II/39 D (37%)	2020/DSE/I/ B

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/2/(d)(ii)
(I) $10 000 × (1 - 25 %) (2)
= $7 500 (1)
Possible way: to recall loans / sell investment assets (2)

(II) $10 000 × (1 / 25 %) (2)
= $40 000 (1)

1991/CE/I/5(b)
(i) $200 / $800 = 25% (2)

(ii) Actual reserves – (Deposits × Required reserve ratio)
$50 - ($100 × 25%) = $25 (2)

(iii) Excess reserves × Banking multiplier
$25 × (1 / 25%) = $100 (3)

Assumptions:
- no cash drain (2)
- people are willing to borrow (2)

1992/CE/I/3(b)(ii)
- 100% reserves required by the government
- the bank keeps all the $1000 as reserves
- no one borrows from the bank
- any cash that leaks out of the bank is not redeposited with the banking system (3@, max. 6)

(Mere listing of points without elaboration - max. 2 marks.)
[Mark the **FIRST TWO** points only.]

1993/CE/I/5(c)(ii)
$3 million × (1 / 25%) (2)
= $12 million (1)

1994/CE/I/5
Maximum amount of deposits to be created = $100 × (1 / 20%) (3)
= $500 (1)

1995/CE/I/10/(a)(iii)
Brief description of the changing process in a correct sequence:

Initial withdrawal of $M ⇒

(Step 1:) Banks lose reserves (i.e. actual reserves < required reserves) (2)

(Step 2.) Banks call back loans / sell bank assets to the public (2)

(Step 3:) Further withdrawal of bank deposits to repay the loans / to buy bank assets (2)
The process of bank deposit contraction goes on and on (1)

(Step 4.) Ultimately, total bank deposits contract (1)
by $M × (1 / 20%) = $5M (2)
(max: 8)

1996/CE/I/11(c)
(i) No change in total bank deposits, because (1)
it is only a switch from one's bank deposit to another's.
OR
there may be some deposit contraction at first, but then it would be offset by the deposit expansion later on (2)

(ii) Banks gain excess reserves (1)
⇒ increase in total bank deposits (1)
by an amount of $5mn × (1 / 25%) = $20mn (2)

1997/CE/I/9(c)
(A logical sequence of the following is required.)
An injection of new money (e.g. the initial $10 b.) to the local banks (1)
⇒ banks gain excess reserves ($R) (1)
and will loan out the excess reserves (1)
⇒ the loan will be redeposited into the banking system (1)

But due to the following factor(s), the redeposit amount is smaller than $R:
- initially not all the new money (the $10b) are deposited to the local banks
- local banks hold excess reserves
- insufficient demand for loan
- cash drain (2@, max: 4)

Elaboration on how any one of the above factors would lead to a total bank deposit amount smaller than the maximum amount (2)
(max: 8)

1998/CE/I/9(a)
(Step 1:) After the bank accepts Mr Wong's $1 m deposit, it will lend out / invest 75% or $0.75 m in the first round (2)
(Step 2:) The $0.75 m loan / investment will be redeposited into the banking system (2)
The process of (Step 1 - Step 2 - Step 1...) will go on and on until (2)
finally the total deposit created = initial deposit × (1 / reserve ratio)
= $1 × (1 / 25%) = $4 m (2)

1999/CE/I/6(a)
$10 000 + [$10 000 × (1 - 25%)] (2)
= $17 500 (2)

2000/CE/I/10(a)
Answer 1
(Assume that the public does not use the $50 mn cash in hand to repay bank loans when the banks call back loans due to the withdrawals)
(i) -$10 mn × [1 - (200 / 1 000)] (2)
= -$50 mn (1)

(ii) Change in money supply
= Change in cash in hand + Change in bank deposits (1)
= (+$10 mn) + (-$50 mn) (2)
=-$40 mn / a contraction of $40 mn (1)

Answer 2
(Assume that the public considers to make use of the $50 mn cash in hand to repay bank loans when the banks call back loans due to the withdrawals)

(i) The max. change is the same as the one in Answer 1. However, the actual change depends on how much of the $50 mn cash in hand is used to repay the bank loans. The min. change is -$10 mn. (Max: 3)

(ii) Use the same formula in Answer 1. The change in bank deposits varies from a max. decrease of $50 mn to a min decrease of $10 mn, depending on how much of the $50 mn cash in hand is used to repay the bank loans. The change in cash in hand varies from a max. to +$10 mn to a min. of +$2 mn. Therefore, the final numerical answer varies from -$40 mn to -$8 mn. (Max: 4)

2001/CE/I/10(b)
(i) Actual reserve ratio = 250 / 1 000 (1)
= 0.25 (1)
Excess reserve = (0.25 - 0.2) × $1 000 mn (1)
= $50 mn (1)

(ii) The withdrawal reduces the amount of reserves to $210 mn. (1)
The new amount of reserves can back up $210 mn × (1 / 20%) (2)
= $1 050 mn of deposits (1)

2002/CE/I/10(a)
(i) The required reserve ratio = (20 / 100) = 0.2 or multiplier = 5 (1)
Max. amount of deposits created = $10 m × 5 = $50m (1)
Max. amount of money supply created = Max. amount of deposits created - decrease in cash in public circulation (1)
= ($50m - $10m) = $40 m (2)

(ii) - there is cash leakage
- the banks decide to hold excess reserves
- insufficient demand for loans (2@, max: 4)
[Mark the **FIRST TWO** points only]

2003/CE/I/11
(b) (ii) Some banks cannot lend out their excess reserve as the demand for bank loans ↓
Step 1: loans that can be made by banks would decrease (1)
Step 2: money re-deposited into the banking system would decrease (1)
Correct sequence : Step 1 → Step 2 (1)
Therefore, deposit creation ability ↓ (1)

(c) Legal reserve ratio = 0.2 (1)
Max. deposit = $250 m × (1 / 20%) (1)
= $1 250 m (2)

2004/CE/I/6(b)
Initial withdrawal of deposits,
⇒ banks lose reserves / insufficient reserves / actual reserves smaller than required reserves (1)
⇒ banks have to call back loans / sell assets to the public (1)
⇒ further withdrawals of deposits (1)
The process goes on and on. (1)

2005/CE/I/5
(a) The amount of excess reserve
= $[120 - (1 000 × 10%)] m = $20 m (1 + 1)

(b) Maximum **possi**ble amount of bank deposits
= $120 m × (1 / 10%) = $1 200 m (1 + 1)

2006/CE/I/6
(a) 10% (1)

(b) Yes because (1)
when total deposits reduce to $1 150 (= $1 500 - $350),
it only needs a reserve of $115 (= $1 150 × 10%) to back up the deposits.
Since the reserve assets only reduce to $150 (= $500 - $350), there is still an excess reserve of $35. (2)

2007/CE/I/7
(a) $200 (1)

(b) (i) -$100 (1)

(ii) -$30 (2)

2008/CE/I/10
(a) An increase in the reserve ratio
⇒ insufficient reserves / actual reserves smaller than required reserves (1)
⇒ banks have to call back loans / sell assets to the public (1)
⇒ withdrawals of deposits (1)
The process will go on and on (until the actual reserve is equal to the required reserve).* (1)
[*Remark: This point deserves one mark only when the sequence of the above steps is correct]

(b) New required reserve ratio = 0.2 + 0.05 = 0.25

Amount of bank deposits that $1 000 million reserve can back up = $1 000 million × (1 / 25%) (1)
= $4 000 million (1)
OR
Change of bank deposits = -$250 million × (1 / 25%) (1)
= -$1 000 million (1)

Change in MS = Change in Cp + change in Dd / No change in Cp / MS = Cp + Dd (1)
Change in MS = -$1 000 million (1)

(MS = money supply;
Cp = cash in the hands of the non-bank public, and
Dd = bank deposits.)

2009/CE/I/6
(a) The minimum required reserve is $1 000 × 20% = $200 (1)
Excess reserve = $100 (1)

(b) Total amount of deposits at maximum = $300 × (1 / 20%) (1)
= $1 500 (1)
OR
Amount of extra deposits created = $100 × (1 / 20%) (1)
Therefore, total amount of deposits at maximum = $1 000 + $500 = $1 500 (1)

2010/CE/I/11(b)
(i) Banking multiplier = 1 / 40% = 2.5 (1)
The max. amount of deposits that can be supported by $2 000 million reserve at 40% reserve ratio
= $2 000 mn. × (1 / 0.4)
= $5 000 mn. (1)
Therefore, the max. change in bank deposits = $5 000 mn. - $8 000 mn. = -$3 000 mn. (1)

(ii) An increase in the reserve ratio
⇒ the actual reserve is smaller than the desired reserve (1)
⇒ banks have to call back loans / sell assets to the public (1)
⇒ withdrawals of deposits (1)
The process will go on and on (until the actual reserve is equal to the desired reserve).* (1)
[*This 4th mark will be awarded only if the above three marks are already awarded.]
[#If the process starts with "withdrawals of deposits", then award only a maximum of 2 marks]

1997/AL/II/9
(a) reserve ratio = 0.25

(b)

Assets ($)		Liabilities ($)	
Reserves	1 000	Deposits	5 500
Loans	4 500		

When the required reserve ratio is 10%, the maximum loan the banking system can extend is $9 000. Since the maximum demand for loan is $4 500, the loan extended will be $4 500. Money supply is $5 500.

(c) A government can restrict the maximum amount a banking system can lend, or the maximum money supply. But the actual amount of lending or the actual money supply is also affected by the demand for loan.

1998/AL/II/9
(a) Money supply = Deposits + amount of currency held by the public
= $4 000 + $500 = $4 500

(b) (i)

Assets ($)		Liabilities ($)	
Reserves	1 100	Deposits	4 100
Loans	3 000		

Money supply = $4 100 + $400 = $4 500

(ii)

Assets ($)		Liabilities ($)	
Reserves	1 100	Deposits	4 400
Loans	3 300		

Money supply = $4 400 + $400 = $4 800

(c) It will increase the money supply only if the banks can lend out some or all of their excess reserves.

2017/DSE/I/8
(a) RRR = ($1 000 - $250) / $3 000 = 0.25 (1)

(b) The change in deposits = $250 × (1 / 0.25) = $1 000 (2)

2019/DSE/II/7

(a) Excess reserves = $300 million – $1000 million x 20% = $100 million (1)

(b) Old money supply = $1000 million + $200 million (4)
= $1200 million
New money supply = ($300 million + $200 million) x 1/20% + $0 million
= $2500 million
Maximum possible change in the money supply = $2500 million – $1200 million
= $1300 million

2021/DSE/II/6
(a) Required reserve ratio = (600 - 300)/1500 = 0.2

(b) New required reserve ratio = 0.2 - 0.05 = 0.15
Maximum amount of deposits = 600/0.15 = $4000 million
New money supply = 4000 + 100 = $4100 million