J.K. SHAH®
TEST SERIES
Evaluate Learn Succeed

SUGGESTED SOLUTION

FINAL NOVEMBER 2018 EXAM

SUBJECT – FINANCIAL SERVICES AND CAPITAL MARKET

Test Code - FNJ 7051

BRANCH - () (Date :)

Head Office : Shraddha, 3rd Floor, Near Chinai College, Andheri (E), Mumbai – 69.

Tel : (022) 26836666

Case study 1:

Part – I

(i) **Sl. No. 1, Column II:** Benchmark for Exchange Traded Sensex 30 fund should be the Sensex 30 index, since this fund should aim to replicate the index. Its benchmark should closely resemble the market replication required. If not, it can never match its performance with an inappropriately chosen benchmark. Whether it over performs or under performs compared to the general index, investors will actually be misled since the investment of the funds will be in the ratio of Sensex 30 securities of the market.

(ii) **Sl. No. 1, Column IV:** The appropriate index is the I-Sec Composite Index. Since the fund has to invest only in Government securities, going by its name, comparison will be ideal only if the market index also relates to Government Securities. The given composite index applies to investment of the fund corporate debt and Government securities, which will actually bear more risk and better returns than the actual investment by the fund. Hence, it will always underperform in terms of income, but over perform in terms of principal protection.

(iii) **Sl. No. 2, Column I and II are wrong:** SEBI regulates that there shall be no entry load for any scheme. These should also be Nil.

(iv) **Sl. No. 3:** There should not be any exit load for exchanged fund, since the very intention to trade on the exchange is to exit any time. Similarly, liquid funds carry a lower return only to offer liquidity at all times. Hence, a punishment levy for exit is inappropriate. For the other funds, it is upto the scheme to levy what is marketable and what is dictated by competition. The SEBI ceiling on exit load where applicable is 7% of NAV. In practice, we find that 1% is the outer limit that is dictated by competition.

(v) **Sl. No. 4, in Column I and III,** both direct and regular should be available. Direct means that the investor does not have to necessarily go through a distributer of mutual funds, thereby saving on his costs, but for this, the investor must be knowledgeable on the mutual fund market. Moreover, many investors prefer to pay the small fee which will help them to readily get advice from the distributor, who must be qualified with NISM certification on his minimum level of knowledge of the mutual fund market. In an exchange traded fund, the demat holding is compulsory and hence the investor can and has to route it through his broker. However, the SEBI has laid down the direct plan has to be available to an investor and he has to have the option of incurring or not, the cost of the distributor.

(vi) **Sl. No. 5, in Column III,** liquid fund has a span of 15 months. This is not appropriate. Liquid funds have to provide liquidity as if they are lying in the savings account of a bank, where in the period (short and uncertain) they will fetch a better return. The investor also does not expect any great money as income, but would in no case tolerate erosion of principal. Hence one year is long for blocking the funds. Moreover, the investments are in the money market with very short term maturity and hence the fund should not expect investors to wait for a year. The ideal period should be 61 days or thereabout.

(vii) **Sl. No. 6, in Column II,** Sensex 30 index has to be replicated. Investments should be in the same proportion as the Sensex 30 stock's capitalization value in the stock exchange index, so that the average index performance of Sensex 30 is more or less replicated but for the expense ratio by the scheme. Hence, being a passively managed scheme, the scheme manager has to act once in a while to set right the balances in the portfolio of investments to align it in proportion to the nifty fifty stock values. Hence, the expense ratio of such a fund also tends to be low. No amount is to be invested in government securities under this scheme, since the returns are more important.

Part – II

The various mistakes have been highlighted in italics and their consequent corrections have been explained as below:

(i) *The trustee of an INVIT need not be a SEBI registered debenture trustee who is an associate of the Sponsor/Manager.*

The proposal is wrong because as per SEBI (Infrastructure Investment Trusts) Regulations, 2014, the trustee of an INVIT shall be a SEBI registered debenture trustee who is not an associate of the Sponsor/Manager.

(ii) *An InvIT shall hold or propose to hold controlling interest and more than 40% of the equity share capital or interest in the underlying SPV, except where the same is not possible because of a regulatory requirement/ requirement emanating from the concession agreement.*

The proposal is wrong because as per SEBI (Infrastructure Investment Trusts) Regulations, 2014, An INVIT shall hold or propose to hold controlling interest and more than 50% of the equity share capital or interest in the underlying SPV, except where the same is not possible because of a regulatory requirement/ requirement emanating from the concession agreement.

(iii) *An INVIT which proposes to invest at least 80% of the value of the assets in the completed and revenue generating Infrastructure assets shall have a minimum 35% public float and at least 25 investors.*

The proposal is incorrect because as per SEBI (Infrastructure Investment Trusts) Regulations, 2014, an INVIT which proposes to invest at least 80% of the value of the assets in the completed and revenue generating infrastructure assets, shall have a minimum 25% public float and at least 20 investors.

(iv) *An INVIT which proposes to invest more than 10% of the value of their assets in under construction infrastructure projects shall have minimum investment and trading lot of Rs. 10 crore.*

(v) *The proposal is incorrect because as per SEBI (Infrastructure Investment Trusts) Regulations, 2014, An INVIT which proposes to invest more than 10% of the value of their assets in under construction infrastructure projects shall have minimum investment and trading lot of Rs. 1 crore.*

Part – III

(1) Expected Return of a security (Rp) = Rf + β(Rm - Rf) So,

14% = 6.5% + β(15% - 6.5%)

Or β = 0.85

(2) Let portfolio standard deviation be σ_p

Market Standard Deviation = σ_m

Coefficient of correlation = r

Portfolio beta (β_p) = $\frac{\sigma_p r}{\sigma_m}$

Required portfolio return (R_p) = $R_f + \beta_p (R_m - R_f)$ Sharpe

Ratio formula is as follows: $R_i - R_f \;/\; \sigma_i$

Sharpe formula is as follows : $R_i - R_f \;/\; \beta_i$

Alpha formula is as follows: = Return of Portfolio - Expected Return

Portfolio	Beta	Return from the portfolio (R_p) (%)
A	1.75	17.75
B	0.90	13.50
C	0.65	12.25
D	1.25	15.25
E	0.90	13.50

Portfolio	Sharpe Method		Treynor Method		Jensen's Alpha	
	Ratio	Rank	Ratio	Rank	Ratio	Rank
A	4.00	IV	5.71	V	1.25	V
B	3.00	V	6.67	IV	1.50	IV
C	7.50	I	9.23	I	2.75	II
D	4.25	III	6.80	III	2.25	III
E	4.50	II	9.00	II	3.60	I

Part – IV

Answers to Multiple Choice Questions:

(i) (c)

(ii) (d)

(iii) (a)

(iv) (a)

(v) (c)

(vi) (a)

(vii) (c)

(viii) (c)

(ix) (b)

(x) (b)

Case Study 2:

(i)

Balance Sheet of XYZ Bank	Rs. Millions		CARR of XYZ	Basel III Requirement
Tier I Capital				
Paid up Capital	2293			
Share Premium	49350	51643		
Balance in P & L A/c	39605			
Less: Proposed Dividend and Taxes thereon	0	39605		
Statutory Reserve	17046			
Capital Reserve	1943	18989		
Sub Total Tier I		**110237**	11.84%	5.5%
Additional Tier I Capital (Borrowings)		**17616**	1.89%	1.5%
Subtotal Tier I + Additional tier I		**127853**	13.73%	7%
Tier II Capital				
Investment Reserve	123			
Borrowing	31423	**31546**	3.39%	2%
Total of Tier I and Tier II		**159399**	17.11%	9%
Risk Weighted Assets (all the three risks together)		**931356**		

There is no violation of Basel III requirement on capital adequacy since more than required 9% is straightway met by Tier I capital, without even going for additional Tier I and Tier II.

Hence the figures are very good for CARR purposes.

Alternatively, the figure 110237 could be arrived at as 2293 + 108067 – 123 i.e. Capital + Reserves other than investment reserve = 110237.

(ii)

Particulars	**Amount Rs.**	**Actual %**	**RBI requirement**	**Compliance with RBI requirement**
Cash and balances with RBI	34771			
Deposits from Customers	669815			
Cash Reserve Ratio =	34771/669815 x 100	5.19%	4%	Complied
Cash, Gold, Non Mortgaged Securities (figures of gold, own cash not given. Hence, only Govt. securities are taken)	177474			
Statutory Liquidity Ratio =	177474/669815 x 100	26.50%	19.50 %	Complied

Note: Cash with RBI, already considered for CRR should not be taken for SLR, since SLR is a requirement in addition to CRR.

(iii) This is a scheduled bank, since it has a share capital exceeding Rs 25 crore and has taken deposits from customers. Being listed in RBI's Schedule of Banks, it has to comply with RBI's rules and submit periodic reports and returns.

(iv) Yes, it is a commercial bank since it has accepted deposits from public and expected to earn profits. (Banks which accept deposits, but not meant to earn profits are co-operative banks, which also do not follow the corporate entity structures, but are societies).

(v) No, this bank cannot perform merchant banking functions since it is a commercial bank. A merchant bank is not allowed to accept deposits from the public. Also, merchant banking is a part of investment banking and not commercial banking.

(vi) Yes, the bank can invest in money market instruments as it can be seen in its balance sheet showing investments. It will invest to keep a comfortable level of compliance of the Statutory Liquidity Ratio of 19.5% of deposits from customers as per RBI requirements.

(vii) (a) The arrangement is called Reverse Mortgage Loan enabled Annuity (RMLeA).

(b) The proposal can be modified to get an ordinary RML, which falls due for repayment after 20 years and getting a better sum of money every month. In case there is a medical emergency or if the real estate prices rise steeply, he can always discharge the amount of loan together with the interest and yet go on a surplus since he would not have consumed the entire amount of installments.

(c) In this RMLeA proposal, the lender advances only 60 – 75% of the value to an insurer and insurer pays the annuity until his death, which would also be conservatively calculated to the insurer's benefit. In medical emergencies, he would not have the liquidity he needs. If prices rise, he will not gain. If there is a price fall, then he would have gained by opting for the annuity.

Answers to Multiple Choice Questions

(i) (c)

(ii) (b)

(iii) (a)

(iv) (c)

(v) (a)

(vi) (a)

(vii) (c)

(viii) (d)

(ix) (d)

(x) (b)

Case Study 3:

(i) The total number of subscribed shares of ABC Ltd. in November 2014 is 57,42,36,166 fully paid equity shares.

(ii)

Price Date	Closing Price at NYSE	RBI Rate	Amount in `
1-6-2015	32.21	63.6083	2048.82
2-6-2015	31.82	63.8330	2031.17
3-6-2015	32.1	63.8515	2049.63
4-6-2015	31.65	64.1775	2031.22
5-6-2015	31.81	63.8955	2032.52
8-6-2015	31.52	64.1100	2020.74
9-6-2015	31.11	63.9360	1989.05
10-6-2015	31.72	63.8849	2026.43
11-6-2015	31.25	63.8910	1996.59
12-6-2015	31.02	64.0301	1986.21
15-6-2015	31.25	64.0868	2002.71
16-6-2015	31.84	64.1505	2042.55

17-6-2015	31.92	64.1135	2046.50
18-6-2015	32.17	63.8495	2054.04
19-6-2015	31.9	63.8195	2035.84
22-6-2015	32.53	63.5098	2065.97
23-6-2015	32.22	63.6406	2050.50
24-6-2015	31.52	63.6600	2006.56
25-6-2015	16.13	63.6121	1026.06
26-6-2015	16.17	63.6042	1028.72
29-6-2015	15.86	63.9170	1013.72
30-6-2015	15.85	63.7549	1010.52

From the above data and the given exhibit, it can be seen that arbitrage opportunity is not possible in the domestic market. However, there is an arbitrage opportunity if domestic investors can purchase shares after the date of bonus issue declaration and sell their shares in the international market later after some days.

(iii) After the bonus announcement, the investors have not reacted positively. The shares are down by about ₹ 120 to ₹ 2001 levels now. The reasons for this may be because the company has pile up excess cash and it has not enough investment opportunities.

(iv) After the bonus issue, EPS will reduce. The reason is that after the bonus issue, the number of shares will increase leading to increase in denominator while numerator i.e. Profit after tax is same. This leads to fall in the value of EPS.

(v) (a) As per regulation 95 of SEBI (ICDR) Regulation, 2009, if an issuer after the approval of its board of directors which does not require the shareholders' approval for bonus issue shall implement the bonus issue within fifteen days from the date of approval of the issue by its board of directors.

However, where the issuer is required to seek shareholders' approval for bonus issue, the bonus issue shall be implemented within two months from the date of the meeting of its

board of directors wherein the decision to announce the bonus issue was taken subject to shareholders' approval.

While calculating basic earnings per share, profit after tax after preference dividend is divided by the total number of equity shares outstanding. On the other hand, in the computation of diluted earnings per share, debt which can be converted into equity in the future is also taken into account. Since, ABC Ltd. is a debt free company; there is no convertible debt on its part. Therefore, basis earning per share and diluted earnings per share are equal.

Further, as per Regulation 93 of SEBI (ICDR) Regulation, 2009 no company shall make a bonus issue of equity shares unless it has made reservation for holders of convertible debt instruments.

However, since ABC Ltd. is a debt free company, the above provision is not applicable to it.

(b) It is clearly provided in the SEBI Regulations that once the decision to make a bonus issue is announced, the issue cannot be withdrawn.

(vi) Prices of ABC Ltd. on the Ex-Bonus date has been reduced drastically. The basic reason is that after the bonus issue, the prices of shares come down in the immediate period. For instance, if the share price before bonus issue is Rs. 1000 and the company issues bonus shares in the ratio of 1:1, the share price after the bonus issue will be Rs. 500. However, it also means that the total market value (2 shares x Rs. 500 = 1000) remains the same.

(vii) It is generally considered prudent to pay dividend consistently even after the bonus issue. Higher dividend payout on the part of ABC Ltd. indicates that existing shareholders will get more dividend after the bonus issue.

For example, in the given case, the company issues bonus shares in the ratio of 1: 1. It declared dividend of 10% which will be ` 1 on the face value of ` 10 in the previous year. In the current year, it decides to maintain the dividend at 10%. Now, a shareholder with one share will get an additional share. His total shares will be 2. And, he is eligible for total dividend of ` 2 (` 1 x 2 shares). So, his dividend income will be doubled due to issue of bonus shares.

Therefore, higher dividend payout on the part of ABC Ltd indicates willingness on the part of company to keep the shareholders happy and increase their wealth. Also, the company can utilize it's excess cash reserves in this way.

(viii) It is definitely feasible for the company to go for buyback. As it has been given in the exhibit 1 that company's cash reserves has increased from 27,722 in 2015 to 29,176 in 2016. So, the company's burgeoning cash reserves can be utilized for buyback.

ABC Ltd has to fulfill the following conditions as given in the SEBI Regulations if it decides to go for the buyback:

(a) A company may buy-back its shares or other specified securities by any one of the following methods:—

- From the existing security-holders on a proportionate basis through the tender offer;
- From the open market through—
  - (i) book-building process,
  - (ii) Stock exchange;
- From odd-lot holders

However, it is to be noted that no offer of buy-back for fifteen per cent or more of the paid up capital and free reserves of the company shall be made from the open market.

(b) A company shall not buy-back its shares or other specified securities from any person through negotiated deals, whether on or of the stock exchange or through spot transactions or through any private arrangement.

(c) Any person or an insider shall not deal in securities of the company on the basis of unpublished information relating to buy-back of shares or other specified Securities of the company.

(d) A company shall not make any offer of buy-back within a period of one year reckoned from the date of closure of the preceding offer of buy-back, if any.

(ix) The Market Price (MP) just before and after the ex-bonus date on both the stock exchanges and calculation of Price Earnings Ratio (P/E) ratio is as follows:

Ex-bonus date – 15/6/2015

P/E Ratio = Market Price Per Share/Earning Per Share

If the EPS of 31st March, 2015 has been taken

ESB

(MP) just before the ex-bonus date i.e. on 12/6/2015 – 1976.65

P/E Ratio = 1976.65/52.96 = 37.32

MP) just after the ex-bonus date i.e. on 16/6/2015 – 999.45 P/E

Ratio = 999.45/52.96 = 18.87

ESN

(MP) just before the ex-bonus date i.e. on 12/6/2015 – 1975.05 P/E

Ratio = 1975.05/52.96 = 37.29

(MP) just after the ex-bonus date i.e. on 16/6/2015 – 999.35 P/E

Ratio = 999.35/52.96 = 18.87

If the EPS of 31st March, 2016 has been taken

ESB

(MP) just before the ex-bonus date i.e. on 12/6/2015 – 1976.65 P/E

Ratio = 1976.65/68.93 = 28.68

(MP) just after the ex-bonus date i.e. on 16/6/2015 – 999.45 P/E

Ratio = 999.45/68.93 = 14.50

ESN

(MP) just before the ex-bonus date i.e. on 12/6/2015 – 1975.05 P/E

Ratio = 1975.05/68.73 = 28.73

(MP) just after the ex-bonus date i.e. on 16/6/2015 – 999.35 P/E

Ratio = 999.35/68.73 = 14.54

(x) The company is debt free as it can be observed from the Balance Sheet of the company. The reason for such non debt element in the capital structure of the company may be due to the fact company has large cash reserved which can be utilized for short term working capital requirements of the company. Further, the exclusion of debt in the capital structure reduces the periodic interest cost on the part of the company. Also, there is the possibility of default risk which may arise due to non-payment of interest and principal amount of loan.

As it has been given in the case study itself sufficient cash balance has been kept by the company to meet its strategic objectives. The company presently generates sufficient cash internally to finance all its operational, financing and investment requirements. The impact of high cash holding is that the cash is underutilized and the company is losing investment opportunities. So, ABC Ltd. may consider a buyback to utilize its cash pile.

(xi) Computation of financial ratios is given as below:

(a) **Dividend Payout Ratio = Total dividend (including dividend tax)/Profit after tax (consolidated)**

2015	**2016**
6704/13678 x 100	6145/12372 x 100
= 49.01%	= 49.67%

(b) **Net Foreign Earnings/Earnings Ratio**

2015	**2016**
26337/52866 x 100	24113/46158 x 100
= 49.8%	= 52.2%

(c) **R & D Expenditure/Revenue**

2015	**2016**
415/53983 x 100	605/47300
= 0.80	= 1.30

(d) **Net Profit Ratio = Net Profit after tax(Standalone)/Net Sales x 100**

2015	**2016**
15786/53983 x 100	12164/47300 x 100
= 29.24	= 25.71

Multiple Choice Questions

(i) (a)

(ii) (b)

(iii) **(**d)

(iv) (b)

(v) (c)

(vi) (a)