

Duration : 2 ½ hrs.

Total Marks :-75

- Note
- Figures to the right indicate full marks.
 - Draw diagrams wherever necessary.
 - Use of calculators is allowed

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|-------|--|----|
| 1. | Answer in short (Any 3) | 15 |
| a. | Credit card | |
| b. | RRBS | |
| c. | Values of paid -up capital and reserves of different banks in India | |
| d. | Licensing of Banking service | |
| e. | Banking regulation | |
| 2. | Answer in short (Any 3) | 15 |
| a. | Requisites to appoint an Actuarist | |
| b. | Life Insurance Act 1956- Aims. | |
| c. | Savings Account | |
| d. | Banking Services | |
| e. | Risk Management Tool Techniques | |
| Q 3.a | Define Risk . Explain Business Risk | 7 |
| Q 3.b | Define Banking . State the scope for Banking | 8 |
| | OR | |
| Q 3.c | State and Explain
Commercial banks and highlight its importance. | 15 |
| Q.4.a | Define a bank . State financial and other services offered by a bank. | 15 |
| | OR | |
| Q.4.b | Define Insurance . Explain uses & benefits of Insurance. | 15 |
| Q.5.a | Define marine Insurance . State and explain various kinds Marine insurance. | 7 |
| Q.5.b | Solve the fall :
Mr. Doshi got his property worth Rs.1 lac insured against Bachao Insurance Co. The policy was containing an average clause. The fire destroyed stock worth Rs.50,000/-
Stock in hand reported on the date of fire was worth Rs.1,25,000/-
Calculate compensation that Mr. Doshi will recover from Bachao Co. | 8 |
| | OR | |
| Q.5.c | State and explain role of RBI. | 15 |

FYBBI

NO3ABF

Q. M. II



Time: 2:30hrs

Max.Marks:75

Instructions:

9/3/15

- (1) All questions are compulsory.
- (2) Each question carries the same marks.
- (3) Only simple calculators are allowed.

Q1 Attempt any 3 out of 5.

(15)

- (a) Write short note on Null and Alternate hypothesis.
- (b) Write in short the scope of LPP in business.
- (c) What is annuity and also write in short on annuity due with formula.
- (d) Write in short on type of risk.
- (e) Find the NPV for the following project, if the cost of capital is 12% p.a.

Year	0	1	2	3	4	5	6
Cash flow (Rs)	-100000	20000	22000	24000	28000	32000	33000

Is the project acceptable?

Q2 Attempt any 3 out of 5.

(15)

- (a) Write in short on population and sample with example.
- (b) Write in short on GDP, GNP, NDP and NNP.
- (c) Write in short on external economic indicators.
- (d) A, B, and C are partners in a business. The capitals of A and B are in the ratio 5:3 and the capitals of B and C are in the ratio 2:7. Distribute the profit of Rs. 37000 earned by the business at the end of the year.
- (e) If $H_0: \mu \leq 50$, $H_1: \mu > 50$. Also given that S.D.=9(population), $n=36$ and mean is 54. Test the hypothesis at 0.01 level of significance. (The value of Tab Z is 2.33)

Q3(a) A company claimed that the mean volume of milk in their 1 litre pack is at least 1.08 litres. A random sample of 31 packs showed a mean of 0.96 litres with a S.D. of 0.05 litres. Test the company's claim at 1% level of significance. (7)

(b) Max $z = 2x_1 + 4x_2$, subject to $2x_1 + 3x_2 \leq 48$, $x_1 + 3x_2 \leq 42$, $x_1 + x_2 \leq 12$, $x_1, x_2 \geq 0$ (8)

OR

Q3 (a) A toy manufacturer produces scooters and bicycles, each of which must be processed through two machines A and B. machine A has a maximum of 120 hours available and machine B has a maximum of 180 hours available. Manufacturing a scooter requires 4 hours on machine A and 10 hours on machine B. Manufacturing a bicycle requires 6 hours on machine A and 3 hours on machine B. If profits are Rs. 700 for a bicycle and Rs. 800 for a scooter, formulate the L.P.P. to maximize the profit. (7)

(b) Find A^{-1} If A is = $\begin{bmatrix} 1 & 3 & 0 \\ 2 & -2 & 1 \\ -4 & 1 & -1 \end{bmatrix}$ (8)

(b) A person left Rs. 23,02,52,500 for her two sons who were 16 and 15 years old respectively. The sum is to be divided such that the older's son share is put in an investment fetching 7% p.a. C.I. and the younger son's share is put in an investment fetching 5% p.a. C.I. so that the two would get the same amount when each turns 18 years old respectively. Find the older son's share today. (8)

OR

Q4(a) A loan of Rs 100000 is to be returned in 4 equal monthly instalments at 12% p.a. (i) Calculate the EMI using reducing balance method. (ii) Calculate for each month the break-up of the EMI into interest payment and principal repayment. (15)

Q5(a) The following table gives the repairs and maintenance cost incurred in a cost centre for various levels of annual production.

Output('000 units)	1	2	3	4	5	6	7	8
Repairs and maintenance cost(Rs '000)	15	21	26	32	36	40	44	49

If the budgeted production at the cost centre in the forthcoming year is 8500 units, what would be the estimated repairs and maintenance cost? (7)

(b) The rate of return of stocks of A and B under different states of economy are presented below along with the probability of the occurrence of each state of the economy. (8)

	Boom	Normal	Recession
Probability of occurrence	0.3	0.4	0.3
Rate of return on stock A (%)	20.0	30.0	50.0
Rate of return on stock B (%)	50.0	30.0	20.0

(i) Calculate the expected rate of return and S.D. of return for stock A and for stock B.

(ii) If you could invest in either stocks A or stocks B, but not in both, which stock would you prefer and why?

OR

Q5 (a) Fit a linear trend equation to the following data and estimate the sales for the year 2005. (7)

Year	2000	2001	2002	2003	2004
Sales (in lakh)	100	120	140	160	180

(b) From the following details calculate Beta of a security. (8)

Year	1	2	3	4	5	6	7	8	9	10
Return on security(%)	10	12	13	10	8	11	16	12	18	20
Return on market portfolio(%)	12	10	10	12	15	14	20	15	20	22