

Q 1 A) Fill in the blanks.

(05)

1. A hypothesis based on experience or prior assumption or the one that is believed to be true is known as _____.
2. Objective function denoted by _____.
3. Compound Interest = Amount - _____.
4. Range is equal to the highest value minus the _____.
5. _____ is a measure of performance of a security or class of securities.

B) Match the following.

(05)

A

B

1. H_0
2. PERT
3. ERR
4. Simple Interest
5. I

- a) Project evolution & Review Techniques
- b) Expected rate of return
- c) Null hypothesis
- d) $P \times n \times i$
- e) $\frac{R}{100}$

C) Define Following.

(05)

1. Life Annuity
2. Standard deviation
3. Statistical Hypothesis
4. Constraints
5. Slack Variable

2 A) A Random sample of 800 units from a consignment showed that 200 units were damaged. Find 95% confidence interval for the population proportion of damage units in the consignment. (08)

B) A survey was conducted to study the T.V. viewing habits with reference to qualification of 400 women and following was observed. (07)

Qualification	Reality show	Talk show	New Channel
Up to H.S.C	80	15	5
Up to Graduates	30	55	65
Post Graduates	20	40	90
Total	130	110	160

Test whether there is any association between qualification and T.V viewing habits at 5% level of significance. (χ^2 tab4 of o.f. at 5% 10 s is 9.49)

OR

C] A diet is to contain at level 400 units of carbohydrate 500 units of fat 300 units of protein. Two foods F_1 and F_2 which cost Rs. 12 and Rs. 24 per unit are available. A units of F_1 contain 10, 20, 15 units of Carbohydrate, fat, protein respectively and respective contain of food F_2 are 25, 10, 20 units to minimize total cost of diet. (08)

D] Maximize $Z = 10x + 5y$
 $x + y \leq 5$
 $2x + y \leq 6$
 $x \geq 0, y \geq 0$

Solve using graphical method.

Q.3.A] Find compound Interest of the sum of Rs. 50,000 at 12% p.a. when it compounded. (08)

1. Half yearly
2. Yearly
3. Quarterly

B] A Company intend to create sinking fund to replace 20th year asset costing Rs. 500,000 calculate the amount to be retain every year if the rate of Interest is at 5%. (07)

OR

C] Prepare Loan repayment table of Loan of Rs. 1000 to be paid in 5 year @ 15% p.a. (15)

Q.4.A] Draw a project network for the following project. (8)

Activity	Immediate Predecessors
A	-
B	-
C	A
D	B
E	A, B
F	C, D
G	F
H	E, G
I	F

B] The following information available in respect of Jessica Ltd and Jennifer Ltd. (07)

Jessica Ltd		Jennifer Ltd	
Return	Probability	Return	Probability
250	0.3	150	0.4
200	0.5	130	0.5
100	0.2	60	0.1

If you were to invest 100, 000 in any of the above company which company you prefer.

OR

C) From the following information calculate. Beta of a security.

(15)

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

5] write notes on. (Any 3)

(15)

1. Errors in decision of Testing of hypothesis.
2. Critical path method
3. Total float
4. Risk Analysis

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