#### <u>CAIIB - FINANCIAL MANAGEMENT - MODULE - A</u>

1) Current Price of a share is Rs. 100. The economic state is as follows

Economy	Probability	Price
Growth	0.6	130
Recession	0.4	90

Calculate the expected return for the stock

- a) 10%
- b) 15%
- c) 14%
- d) 16%
- 2) What is the N P V of the following at 15%
  - CASHFLOWS
    - t=0 t=1
- t = 2
- -120,000 -100,000
- 300,000
- a) 19,887
- b) 80,000
- c) 26,300
- d) 40,000
- 3) An investment at 12% compound monthly is equal to annual rate
  - a) <u>12.68%</u>
  - b) 12.26%
  - c) 12%
  - d) 12.36%
- 4) In theory of Sampling "the larger the size of the sample the greater the accuracy" is based on
  - a) law of Statistical regularity
  - b) law of Inertia of large numbers
  - c) law of Statistical imperfection
  - d) law of large numbers
- 5) If P = 0.5
  - O = 0.5
  - $\sigma = 0.05$

Find the sample size

- a) 1000
- b) 100,000
- c) 100
- d) 10,000

6) In finding a sample of good & bad students asking students themselves Whether

they are good or bad is a case of bias. Which of the following does the bias fall into

- a) <u>faulty process of selection</u>
- b) faulty work during collection of data
- c) faulty method of analysis
- d) wrong choice of subject
- 7) When we want to study some unknown traits of a population, we use
  - a) cluster sampling
  - b) stratified sampling
  - c) judgment sampling
  - d) systematic sampling
- 8) Which of the following is not a restricted random sample
  - a) judgment sampling
  - b) stratified sampling
  - c) systematic sampling
  - d) cluster sampling
- 9) Which one of the following is not true
  - a) probability sampling depends upon existence of detailed information
    - i. about the universe for its existence
  - b) probability sampling provides estimates which are essentially unbiased i. & have reasonable precision
  - c) probability sampling requires a high level of skill and experience for its
  - i. used) it is possible to evaluate the relative efficiency of various sample
    - i. designs of various sample is used
- 10) In Correlation analysis which of the following is true
  - a. the correlation may be due to pure chance in a small sample
  - b. correlation analysis tell us about cause & effect of relationship
  - c. correlation analysis does not tell us about degree of relationship
  - d. correlated variables cannot be influenced other variables
- 11) From the following data identify the correct alternative
  - X 10 20 30 40 50
  - Y 20 35 50 75 90
    - a) positive & linear
    - b) positive & curvilinear
    - c) negative & linear
    - d) negative & curvilinear

12) In the following X and Y are independent & dependent variables. Read the figures and answer.

X 1 2 3 4 Y 5 13 12 25

- a) there is no correlation between X & Y
- b) there is +ve correlation between X & Y
- c) there is -ve correlation between X & Y
- d) there partial correlation between X & Y
- 13) In a study it was noticed that average height of sons of tall fathers is less
  - i. than that of the fathers and vice versa. This is due to
  - a) extension
  - b) progression
  - c) regression
  - d) hypertension
- 14) Co-efficient of determination =  $r^2$  = explained variation Total variation

Co-efficient of correlation = r

while r explains completely the relationship between the variables, r<sup>2</sup> does not because

- a)  $r^2$  is less than 1
- b) r<sup>2</sup> is always +ve
- c) r<sup>2</sup> is always -ve
- d) r<sup>2</sup> as per formula cannot explain direction
- 15) For a normal distribution which of the following is true
  - a) mode < mean < median
  - b) mode > mean > median
  - c) mean < median < mode
  - d) mean = median = mode
- 16) Under a normal curve mean + 1.96 $\sigma$  is an area. Choose the correct one from the following
  - a) 95.45% area
  - b) 68.27% area
  - c) 95.00% area
  - d) 99.73% area
- 17) In a normal curve the area between z = -0.4 & z = 0.6 is
  - a) 0.1554
  - b) 0.2257

c)	0.3811
d)	0.4267

- 18) In a normal distribution 7% of items are under 35 then what % are between mean and 35
  - a) 93%
  - b) 65%
  - c) 43%
  - d) 86%
- 19) In a normal distribution for incomes mean = 750

Std deviation = 50 Population = 10,000

What is z value for income exceeding 650

- a) <u>-2.00</u>
- b) -1.50
- c) -1.25
- d) 1.75

In an aptitude test administered to 1000 students the average scores was 42 & Std. Dev. = 24. Answer the following questions( 24 to 27)

- 20) The number of students exceeding 50 marks
  - a) 370
  - b) 670
  - c) 500
  - d) 250
- 21) Students lying between 30 & 54 marks
  - a) <u>383</u>
  - b) 463
  - c) 373
  - d) 293
- 22) Value of scores exceeded by top 100 students
  - a) 70%
  - b) 60%
  - c) <u>73%</u>
  - d) 75%
- 23) No. of students getting scores < 50
  - a) 600
  - b) 540
  - c) 630
  - d) 660

- 24) Seasonal variations do not appear in annual figures since
  - a) they occur infrequently
  - b) they are cycles which occur repeatedly over relatively short duration
  - c) figures may not be of requisite accuracy
  - d) it is difficult to index the figures
- 25) The fall in demand for automobiles causing closure of factory is case of
  - a) seasonal variation
  - b) cyclical variation
  - c) irregular variation
  - d) secular trend
- 26) In the analysis of time series which of the following adjustments

is not done while drawing up an index for de-seasonalising

- a) calendar variation
- b) population changes
- c) price changes
- d) coding

Read the following data and fill in the blank

$\mathcal{C}$		
Year	production	moving average for 3 years
1990	10	
1991	20	20
1992	30	30
1993	40	40
1994	50	
1995	75	<del>_</del>
1///	13	

- a) 50
- b) 55
- c) 60
- d) 65
- A sampling ratio of 0.10 was used in a sample survey when population Size was 50. What is the finite population multiplier.
  - a) <u>0.968</u>
  - b) 0.10
  - c) 1.10
  - d) cannot be calculated from the given data.
- 28) As the confidence level increases for a confidence interval the width of the interval
  - a) Increases
  - b) decreases

- c) remains unchanged
- d) a) or b)
- 29) Trend equation is Y = 25 + 0.4X, where Y is production figures,

X is 1 year unit. Origin is 1960; shift origin to 1<sup>st</sup> Jan. 1961.

The trend eqn. will now read as

- a) Y = 12.5 + 0.4X
- b) Y = 25 + 0.2X
- c) Y = 25 + 0.8X
- d) Y = 12.5 + 0.2X
- 30) A bond holder of a company has one of the following relationship with

It .Identify

- a) shareholder
- b) depositor
- c) creditor
- d) employee
- 31) The relationship between the bond prices and interest rates is one of the

Following

- a) direct & linear
- b) inverse & linear
- c) direct and curvilinear
- d) no relationship

A toy manufacturer produces bicycles(x) & scooters(y).

Read the following data and answer:

Max. availability of machines is 12 hrs and x takes 2 hrs. and y takes 4 hrs to make. The total cost of x & y is Rs. 400 & 12000 respectively.

The sale prices of x & y are Rs. 700 & 16000 respectively.

The amount available for daily production is Rs. 28000.

Labour available is for 16 hrs. labour requirement for x & y is 4 & 12 hrs respectively

Choose the correct option from each of the following (38 to 41)

- 32) production constraint
  - a)  $\underline{x + 2y \le 6}$
  - $b) 4x + 2y \le 12$
  - c)  $2x + y \le 6$
  - $9x = 6y \le 12$
- 33) Financial constraint

a) 
$$4x + 120y \le 280$$

b) 
$$4x + 12y \le 28$$

c) 
$$12y + 4x \le 28$$

d) 
$$120x + 4y \le 280$$

#### 34) Labour constraint

a) 
$$12x + 4y \le 16$$

b) 
$$x + 3y \le 4$$

c) 
$$3y + x \le 4$$

d) 
$$4x + 12y \le 16$$

#### 35) Profit equation

a) 
$$7x + 160y$$

b) 
$$160x + 7y$$

c) 
$$700x + 1600y$$

d) 
$$70x + 160y$$

The trend equation is Y = a + b XIf N = 7,  $\sum Y = 619$ ,  $\sum X = 0$ ,  $\sum XY = 141$ ,  $\sum X^2 = 28$ Answer the following (36 to 39)

### 36) Value of a is

## 37) Value of b is

38) Equation 
$$Y = a + bX$$
 is

a) 
$$Y = 66.27 + 2.67X$$

b) 
$$Y = 85.55 + 3.45X$$

c) 
$$\underline{Y = 88.43 + 5.04X}$$

d) 
$$\overline{Y = 85.55 + 5.75X}$$

# 39) The monthly trend eqn. is

a) 
$$Y = 5.52 + 0.2225X$$

b) 
$$Y = 7.37 + 0.2875X$$

c) 
$$Y = 7.37 + 0.035X$$

d) 
$$\overline{Y = 7.13 + 0.40X}$$

- 40) What is sampling for groups with considerable variation within but similar to each other called?
  - a) <u>cluster</u>
  - b) stratified
  - c) systematic
  - d) random

