

## Part-A

I. Choose the correct answer: 10x1=10

1. The oldest form of organisation in public sector \_\_\_\_\_.
  - a) Public sector undertakings
  - b) Statutory corporation
  - c) Department undertaking
  - d) Multinational companies
2. Dispersal of decision making power to branches by head office represents \_\_\_\_\_.
  - a) Integration
  - b) Centralisation
  - c) Power
  - d) Decentralisation
3. All co-operatives are established with \_\_\_\_\_ motive.
  - a) Service
  - b) Profit
  - c) Reform
  - d) Philanthropic
4. Table A of the Companies Act is a \_\_\_\_\_.
  - a) Model of MOA
  - b) Model of minutes book
  - c) Model of AOA
  - d) None of the above
5. LLP Act 2008 was published in the official Gazette of India on
  - a) 19 March 2009
  - b) 9 Jan 2009
  - c) 14 March 2008
  - d) 25 Jan 2007
6. Which is the oldest form of Business Organisation?
  - a) Joint Stock Company
  - b) Partnership
  - c) Sole Proprietorship
  - d) Co-operative Society
7. Production which involves several stages for manufacturing finished products is known as \_\_\_\_\_ industry.
  - a) Processing
  - b) Manufacturing
  - c) Analytical
  - d) Synthetic
8. \_\_\_\_\_ units require less capital and small number of workers.
  - a) Small scale
  - b) Medium scale
  - c) Large scale
  - d) None of the above

9. \_\_\_\_\_ may be defined as “the organized system for the exchange of goods and services between members of industrial world.”

- a) Business
- b) Trade
- c) Industry
- d) Commerce

10. \_\_\_\_\_ was once a flourishing place of commerce.

- a) Pumpuhar
- b) Mylapore
- c) Alagankulam
- d) Alambarai

## Part-B

II. Answer any four of the following: 4x2=8

11. What do you mean by employment?
12. Define Commerce.
13. What are the Corporate enterprises?
14. Who are Rochdale pioneers?
15. Write two advantages of MNC.
16. Write the classification of companies.

## Part-C

III. Answer any four of the following: 4x3=12

17. State the meaning of Maruvarapakkam and Patinampakkam.
18. What is unlimited liability of sole trader?
19. Define partnership.
20. What is meant by foreign company?
21. What are the disadvantages of MNC?
22. What is meant by Government Company?

## Part-D

IV. Answer the following: 3x5=15

23. a) Distinguish between economic activity and non economic activity.

(or)

- b) Briefly explain auxiliaries to trade.

24. a) Explain the types of dissolution of partnership firm.

(or)

- b) What are the contents of MOA?

25. a) What are the features of Departmental organisation?

(or)

- b) Write a note on consumer co-operative society.

30.07.19

First Mid Term Test

Time: 1½ hrs

STD: XI [A-D]

Maths

Marks: 45

I. Choose the correct answer:

15x1=15

- The number of relations on a set containing 3 elements is \_\_\_\_  
a) 9      b) 81      c) 512      d) 1024
- The range of the function  $f(x) = \frac{1}{1-2\sin x}$  is \_\_\_\_  
a)  $(-\infty, -1) \cup \left(\frac{1}{3}, \infty\right)$     b)  $\left(-1, \frac{1}{3}\right)$     c)  $\left[-1, \frac{1}{3}\right]$   
d)  $(-\infty, -1] \cup \left[\frac{1}{3}, \infty\right]$
- If the function  $f: [-3, 3] \rightarrow S$  defined by  $f(x) = x^2$  is onto then S is  
a)  $[-9, 9]$     b) R      c)  $[-3, 3]$     d)  $[0, 9]$
- If  $n(A) = 2$ ,  $n(B \cup C) = 3$  then  $n[(A \times B) \cup (A \times C)]$  is \_\_\_\_  
a)  $2^3$       b)  $3^2$       c) 6      d) 5
- Let  $X = \{1, 2, 3, 4\}$  &  $R = \{(1, 1), (1, 2), (1, 3), (2, 2), (3, 3), (2, 1), (3, 1), (1, 4), (4, 1)\}$ . Then R is \_\_\_\_\_.  
a) Reflexive    b) Symmetric    c) Transitive    d) Equivalence
- The graph of  $y = f(x-c)$ ,  $c > 0$  causes the shift to the \_\_\_\_\_.  
a) left      b) right      c) upward      d) downward
- The product of an odd function and an even function is \_\_\_\_\_ function.  
a) odd      b) even      c) prime      d) composite
- Onto function is also called as \_\_\_\_\_ function.  
a) Injective    b) Surjective    c) Bijective    d) Injective & Bijective
- The number of solutions of  $x^2 + |x - 1| = 1$  is \_\_\_\_\_.  
a) 1      b) 0      c) 2      d) 3
- If  $\frac{|x-2|}{x-2} \geq 0$  then x belongs to \_\_\_\_\_.  
a)  $[2, \infty)$     b)  $(2, \infty)$     c)  $(-\infty, 2)$     d)  $(-2, \infty)$
- The solution set of the following inequality  $|x - 1| \geq |x - 3|$  is  
a)  $[0, 2]$       b)  $[2, \infty)$       c)  $(0, 2)$       d)  $(-\infty, 2)$
- The number of roots of  $(x+3)^4 + (x+5)^4 = 16$  is \_\_\_\_\_.  
a) 4      b) 2      c) 3      d) 0
- A polynomial with degree 5 is called a \_\_\_\_\_ polynomial.  
a) Quadratic    b) Quadric    c) Linear      d) Quintic
- If the discriminant is zero then the nature of roots are \_\_\_\_\_.  
a) Real & distinct    b) Real & equal    c) No real  
d) None of these

15. The symbol to denote irrational number is \_\_\_\_\_.

- a) Q      b) R-Q      c) R+Q      d) Z-Q

II. Answer any 3 of the following:

3x2=6

16. Solve  $\frac{1}{5} |10x - 2| < 1$

17. Find the domain of  $\frac{1}{1-2\sin x}$

18. If P(A) denotes the power set of A then find  $n(P(P(P(\emptyset))))$ .19. Factorize  $x^4 + 1$ 

III. Answer any 3 of the following:

3x3=9

20. Solve  $\frac{x^2-4}{x^2-2x-15} \leq 0$

21. If the difference of the roots of the equation  $2x^2 - (a+1)x + a - 1 = 0$  is equal to their product, then prove that  $a = 2$ .22. If  $f: R \rightarrow R$  is defined by  $f(x) = 3x - 5$  prove that f is a bijection and find its inverse.23. If A and B are two sets so that  $n(B-A) = 2n(A-B) = 4n(A \cap B)$  and if  $n(A \cup B) = 14$  then find  $n(P(A))$ .

IV. Answer any 3 of the following:

3x5=15

24. In the set Z of integers, define  $mRn$  if  $(m-n)$  is divisible by 7.

Prove that R is an equivalence relation.

25. From the curve  $y = \sin x$ , graph the function

a)  $y = \sin\left(\frac{\pi}{2} - x\right)$

b) If  $f, g: R \rightarrow R$  are defined by  $f(x) = |x| + x$  and  $g(x) = |x| - x$  find  $g \circ f$  and  $f \circ g$ .

26. A manufacturer has 600 litres of a 12 percent solution of acid. How many litres of 30 percent acid solution must be added to it so that the acid content in the resulting mixture will be more than 15 percent but less than 18 percent.

27. If one root of  $k(x-1)^2 = 5x - 7$  is double the other root, show that  $k = 2$  (or)  $-25$ .