

**CSAT**

# CSAT SYLLABUS

	MATHS	REASONING	READING COMPREHENSION
Average	25-30 Q`s	20-25 Q`s	25-30 Q`s
2020	35 Q`s	15 Q`s	25 Q`s

## REASONING (GMA, AR, LR)

SL. NO.	SESSION NAME	SESSION DETAILS
1	Reas-1	Series & Coding-Decoding
2	Reas-2	Blood Relation & Direction
3	Reas-3	Clock & Calendar
4	Reas-4	Dice & Cubes
5	Reas-5	Application of Sets
6	Reas-6	Sitting Arrangement & Ranking
7	Reas-7	Puzzles (Table Formation)
		Analytical Reasoning
8	Reas-8	(No. of Triangles, Squares, Rectangles)
9	Reas-9	Non-Verbal Reasoning
10	Reas-10	Syllogism
11	Reas-11	Statement- Assumption , Strong & Weak Argument
12	Reas-12	Course of Action , Cause & Effect

## MATHS (BASIC NUMERACY)

SL NO.	SESSION NAME	SESSION DETAILS
1.	M-1	NUMBER SYSTEM Part-1
2.	M-2	NUMBER SYSTEM Part-2
3.	M-3	LCM & HCF
4.	M-4	Percentage
5.	M-5	Profit-Loss & Discount
6.	M-6	Ratio & Proportion
7.	M-7	Average & Age
8.	M-8	DI &
9.	M-9	Time, Speed & Distance
10	M-10	Time & Work
11	M-11	Mensuration
12	M-12	Permutation & Combination
13	M-13	Probability

# Permutation & Combination

# Permutation & Combination

- \* FPC
- \* Permutation
- \* Combination

**FPC**

**1Q:How many 3- digit numbers can be formed by using the nos. 0, 5, 7 and 8?**

**(a)64**

**(b) 48**

**(c) 27**

**(d) 36**



**2Q:How many 3- digit numbers can be formed by using the nos. 0, 4, 5 and 9 if digits are not repeated?**

**(a)64**

**(b) 48**

**(c) 27**

**(d) 18**

**3Q: How many nos. can be formed using the nos. 0, 6 and 9 ?**

**(a) 9    (b) 8    (c) 10    (d) None of these**

**4Q: A test has 6 multiple choice questions. In how many ways these questions can be solved if first three questions have 4 choices and the last three questions have 5 choices?**

**(a) 30**

**(b) 27**

**(c)  $4 \times 4 \times 4 \times 5 \times 5 \times 5$**

**(d)  $5 \times 5 \times 5 \times 6 \times 6 \times 6$**

**5Q: A test paper contains 5 questions. In how many ways can the test paper be solved if atleast one question is compulsory?**

**(a)30 (b) 32 (c) 31 (d) 5**

**6Q: If there are 10 cars available for travelling from Delhi to Agra, in how many ways a person can travel from Delhi to Agra and come back if he uses different cars while going and coming?**

- (a) 90      (b) 100      (c) 20      (d) 19**

**7Q: There are 4 parcels and 5 postoffices. In how many ways the parcel can be sent to the registered post?**

- (a) 256      (b) 20      (c) 625      (d) 400**

# Basics of Permutation

**8Q: In how many ways five people can stand in a row?**

- (a) 120      (b) 19      (c) 720      (d) 600**



**9Q: In how many ways five people can sit in a row if two special people always sit together?**

**(a) 120    (b) 48    (c) 24    (d) 12**

**10Q: In how many ways five people can sit in a row if two special people does not sit together?**

**(a) 120    (b) 48    (c) 24    (d) 72**

**11Q: In how many ways five people can sit in a row if two special people does not sit together?**

- (a) 120    (b) 48    (c) 24    (d) 72**

# CSAT QUESTIONS

**CSAT-2020**

**12Q: How many different 5-letter words (with or without meaning) can be constructed using all the letters of the word 'DELHI' so that each word has to start with D and end with I?**

- (a) 24**
- (b) 18**
- (c) 12**
- (d) 6**

**CSAT-2018:**

**13Q: For a sports meet, a winners' stand comprising three wooden blocks is in the following form . There are six different colours available to choose from and each of the three wooden blocks is to be painted such that no two of them has the same colour. In how many different ways can the winners' stand be painted?**

- (a) 120**
- (b) 81**
- (c) 66**
- (d) 36**

## CSAT-2017

**14Q:** If 2 boys and 2 girls are to be arranged in a row so that the girls are not next to each other, how many possible arrangements are there?

- (a) 3
- (b) 6
- (c) 12
- (d) 24

# Basics of Combination



**UPSC-2010**

**15Q: In a tournament 14 teams play league matches. If each team plays against every other team once only then how many matches are played?**

**(a) 105**

**(b) 91**

**(c) 85**

**(d) 78**

## UPSC-2010

16Q: Each person's performance compared with all other persons is to be done to rank them subjectively. How many comparisons are needed in total; if there are 11 persons?

- (a) 66
- (b) 55
- (c) 54
- (d) 45

**UPSC-2010**

**17Q: When ten persons shake hands with one another, in how many ways is it possible?**

- (a) 20**
- (b) 25**
- (c) 40**
- (d) 45**

**UPSC-2010**

**18Q: When ten persons shake hands with one another, in how many ways is it possible?**

- (a) 20**
- (b) 25**
- (c) 40**
- (d) 45**

**UPSC-2009**

**19Q: A person has 4 coins each of different denomination. What is the number of different sums of money the person can form (using one or more coins at a time)?**

- (a) 16**
- (b) 15**
- (c) 12**
- (d) 11**

**UPSC-2020**

**20Q: How many different sums can be formed with the denomination Rs. 50, Rs. 100, Rs. 200, Rs. 500, and Rs. 2,000 taking at least three denominations at a time?**

- (a) 16**
- (b) 15**
- (c) 14**
- (d) 10**

**UPSC-2018**

**21Q: How many diagonals can be drawn by joining the vertices of an octagon?**

- (a) 20**
- (b) 24**
- (c) 28**
- (d) 64**

## UPSC-2015

**22Q:** A student has to opt for 2 subjects out of 5 subjects for a course, namely, Commerce, Economics, Statistics, Mathematics I and Mathematics II. Mathematics II can be offered only if Mathematics I is also opted. The number of different combinations of two subjects which can be opted is:

- a) 5
- b) 6
- c) 7
- d) 8



## **UPSC-2015**

**23Q: A selection is to be made for one post of Principal and two posts of Vice-Principal. Amongst the six candidates called for the interview, only two are eligible for the post of Principal while they all are eligible for the post of Vice-Principal. The number of possible combinations of selection is:**

- a) 4**
- b) 12**
- c) 18**
- d) None**

## CSAT-2016

**24Q:** In a question paper there are five questions to be attempted and answer to each question has two choices - True (T) or False (F). It is given that no two candidates have given the answers to the five questions in an identical sequence. For this to happen the maximum number of candidates is:

- (a) 10
- (b) 18
- (c) 26
- (d) 32

# PROBABILITY

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**25Q:** Find the probability of getting atleast two head when three coins are tossed simultaneously.

(a)  $1/2$

(b)  $1/8$

(c)  $2/3$

(d)  $3/4$

**26Q:** Find the probability of getting atmost two head when three coins are tossed simultaneously.

(a)  $1/2$

(b)  $1/8$

(c)  $7/8$

(d)  $3/4$

**27Q:** Find the probability of not getting all position same when 5 coins are tossed simultaneously.

- (a)  $1/4$
- (b)  $1/16$
- (c)  $7/16$
- (d)  $15/16$

# DICE



**28Q: One dice is thrown. Find the probability of getting :**

**i) prime numbers**

**ii) composite numbers**

**29Q: Two dice are thrown simultaneously. Find the probability of getting :**

**i) first prime number and second even number.**

**ii) getting sum more than 6.**

# CARDS

**30Q: One card is drawn from the pack of cards. Find the probability of :**

i) getting red.

ii) getting black queen.

iii) getting ace.

**31Q: Two cards are drawn from pack of cards without replacement. Find the probability of :**

**i) getting first card diamond and second card black.**

**ii) getting both the card red.**

## CSAT-2018

**32Q: A bag contain 15 red balls and 20 black balls. Each ball is numbered 1 or 2 or 3. 20% of the red balls are numbered 1 and 40 % of them numbered 3. Similarly among the black balls, 45% are numbered 2 and 30% are numbered 3. A boy picks a ball at random. He wins if the ball is red and numbered 3 or if it is black and numbered 1 or 2. What are the chances of his winning ?**

- a)  $1/2$**
- b)  $5/9$**
- c)  $12/13$**
- d)  $4/7$**

## CSAT-2016

33Q: A round archery target of diameter 1 m is marked with four scoring regions from the centre outwards as red, blue, yellow and white. The radius of the red band is 0.20 m. The width of all the remaining bands is equal. If archers throw arrows towards the target, what is the probability, that the arrows fall in the red region of the archery target?

- (a) 0.40
- (b) 0.20
- (c) 0.16
- (d) 0.04

ALL THE BEST