1. The probability of a leap year selected at random contain 53 Sunday is:						
(a) 53/366 (b) 1/7 (c) 2/7 (d) 53/365						
2. A bag contains 3 red and 2 blue marbles. A marble is drawn at						
random. The probability of drawing a black ball is :						
(a) 3/5 (b) 2/5 (c) 0/5 (d) 1/5						
3. The probability that it will rain tomorrow is 0.85. What is the						
probability that it will not rain tomorrow						
(a) 0.25 (b) 0.145 (c) 3/20 (d) none of these						
4. What is the probability that a number selected from the numbers						
(1, 2, 3,,15) is a multiple of 4?						
(a) 1/5 (b) 4/5 (c) 2/15 (d) 1/3						
5. What are the total outcomes when we throw three coins?						
(a) 4 (b) 5 (c) 8 (d) 7						
6. The probability that a prime number selected at random from the						
numbers (1,2,3,35) is :						
(a) 12/35 (b) 11/35 (c) 13/35 (d) none of these						
7. The sum of the probability of an event and non event is:						
(a) 2 (b) 1 (c) 0 (d) none of these.						
8. The following probabilities are given; choose the correct answer						
for that which is not possible.						
(a) 0.15 (b) 2/7 (c) 7/5 (d) none of these.						
9. If three coins are tossed simultaneously, than the probability of						
getting at least two heads, is:						
(a) 1/4 (b) 3/8 (c) ½ (d) 1/8						
10. A letter is chosen at random from the letters of the word						
<b>♦</b> ASSASSINATION <b>♦</b> . The probability that the letter chosen has:						
(a) 6/13 (b) 7/13 (c) 1 (d) none of these.						
11. A dice is thrown. Find the probability of getting an even number.						
(A) 2/3 (B) 1 (C) 5/6 (D) 1/2						
12. Two coins are thrown at the same time. Find the probability of						
getting both heads. (A) 3/4 (B) 1/4 (C) 1/2 (D) 0						
13. Two dice are thrown simultaneously. The probability of getting a						

sum of 9 is:

(A) 1/10	(B) 3/10	(C) 1/9	(D) 4	4/9			
14. 100 cards are numbered from 1 to 100. Find the probability of getting a prime number.							
	(B) 27/50	(C) 1/4	(D	) 29/100			
15. A bag contains 5 red balls and some blue balls .If the probability of drawing a blue ball is double that of a red ball, then the number of blue balls in a bag is:							
(A) 5	(B) 10	(C) 15	(D) 20				
16. A box of 600 bulbs contains 12 defective bulbs. One bulb is taken out at random from this box. Then the probability that it is non-defective bulb is:  (A) 143/150 (B) 147/150 (C) 1/25 (D) 1/50							
17. Cards marked with numbers 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from this box randomly, then the probability that the number on card is a perfect square.  (A) 9/100 (B) 1/10 (C) 3/10 (D) 19/100							
<b>18.</b> What is the probability of getting <b>53</b> Mondays in a leap year? (A) 1/7 (B) 53/366 (C) 2/7 (D) 7/366							
19. A card is drawn from a well shuffled deck of 52 cards. Find the probability of getting a king of red suit.  (A) 1/26 (B) 3/26 (C) 7/52 (D) 1/13							
20. A game of chance consists of spinning an arrow which is equally likely to come to rest pointing to one of the number 1,2,312, then the probability that it will point to an odd number is:  (A) 1/6 (B) 1/12 (C) 7/12 (D) 5/12							
21. A game consists of tossing a one rupee coin 3 times and noting its outcome each time. Aryan wins if all the tosses give the same result i.e. three heads or three tails and loses otherwise. Then the probability that Aryan will lose the game.  (A) 3/4 (B) 1/2 (C) 1 (D) 1/4							

22. Riya and Kajal are friends. Probability that both will have the same birthday is the same birthday is:							
-	(B) 31/365	•	(D) 1/133225				
23. A number $x$ is chosen at random from the numbers -2, -1, 0, 1, 2. Then the probability that $x^2 < 2$ is? (A) $1/5$ (B) $2/5$ (C) $3/5$ (D) $4/5$							
a marble is dra red is 2/3, the	24. A jar contains 24 marbles. Some are red and others are white. If a marble is drawn at random from the jar, the probability that it is red is 2/3, then the number of white marbles in the jar is:  (A) $10$ (B) $6$ (C) 8 (D) $7$						
25. A number is selected at random from first 50 natural numbers. Then the probability that it is a multiple of 3 and 4 is: (A) $7/50$ (B) $4/25$ (C) $1/25$ (D) $2/25$							
26. Consider a dice with the property that that probability of a face with n dots showing up is proportional to n. The probability of face showing 4 dots is?							
a) $\frac{1}{7}$	b) $\frac{5}{42}$	c) $\frac{1}{21}$	d) $\frac{4}{21}$				
			ches are 50, 70, 82,				
	ne standard devia b) 25.49		d) 25.69				
28. Find median and mode of the messages received on 9 consecutive days 15, 11, 9, 5, 18, 4, 18, 13, 17.							
a) 13, 15	b) 13, 18		d) 13, 16				
29. A coin is tossed up 4 times. The probability that tails turn up in 3 cases is							
a) $\frac{1}{2}$	b) $^{1}/_{3}$	c) $^{1}/_{4}$	d) $^{1}/_{6}$				
	ate between 0 an o) 7		f E(X²) is <mark>d) 9</mark>				
31. The random variables X and Y have variances 0.2 and 0.5 respectively. Let Z= 5X-2Y. The variance of Z is?							

32.Out of the probability?	•	alues, whicl	n one is not poss	sible in
a) $P(x) = 1$	b)∑x <mark>d) P(</mark>			
33.If E(x) = a) 2	<b>2 and E(z) = </b> 4 b) 6	<b>I, then E(z -</b> c) 0	· · · · · · · · · · · · · · · · · · ·	sufficient data
34.The cova	ariance of two	independe	nt random variab	ole is
a) 1	b) 0	c) - 1	d) Ur	ndefined
<b>35.If Σ P(x)</b> a) 0	<b>= k<sup>2</sup> – 8 then</b> , b) 1	, the value o		sufficient data
, ,	<b>0.5 and x = 4,</b> b) 0.5	, ,	? d) 2	
37.In a disc is always?	rete probabili	ty distributio	on, the sum of al	l probabilities
a) 0	b) Infinite	c) 1	d) Un	defined
38.If the pr	obability of hi	tting the tar	get is 0.4, find n	nean and
	b) 0.6,	0.24	c) 0.4, 0.16	d) 0.6, 0.16
-	% and if 10 bo	mbs are dro	pped from a place opped, find mear 0.4, 0.16	
a) 2	e mean of toss b) 4 the mean and	c) 8	d) 1 or standard norn	nal distribution?

c) 5

d) 7

a) 3

b) 4

		and varia						
		e of a rand b) E(X			•		_ · d) (E(X))2	
a) E	<b>43.Mean of a random variable X is given by</b> a) E(X) b) E(X2) c) E(X2) - (E(X))2 d) (E(X))2							
44.N a) 0	44.Mean of a constant 'a' is a) 0							
<b>45.Variance of a constant 'a' is</b> .  a) 0								
46.Find the mean and variance of X?								
	Х	0	1	2	3	4		
	f(x)	1/9	2/9	3/9	2/9	1/9		
a) 2,	, 4/3	b) 3	, 4/3	(	c) 2, 2/3		d) 3, 2/3	

47. Find the expectation of a random variable X?

	х	0	1	2	3	
	f(x)	1/6	2/6	2/6	1/6	
a) (	).5	•	b) 1.5		c) 2.5	d) 3.5

48. In a Binomial Distribution, if p, q and n are probability of success, failure and number of trials respectively then variance is given by

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b) npq

c) np2q

d) npq2

49. If 'X' is a random variable, taking values 'x', probability of success and failure being 'p' and 'q' respectively and 'n' trials being conducted, then what is the probability that 'X' takes values 'x'? Use **Binomial Distribution.** 

- a) P(X = x) = nCx px qx
- b) P(X = x) = nCx px q(n-x)
- c) P(X = x) = xCn qx p(n-x)
- d) P(x = x) = xCn pn qx

50. If 'p', 'q' and 'n' are probability pf success, failure and number of trials respectively in a Binomial Distribution, what is its Standard **Deviation?** 

- a)  $\sqrt{np}$  b)  $\sqrt{pq}$  c) (np)2 d)  $\sqrt{npq}$