1. The probability of a leap year selected at random contain 53					
Sunday is:					
		(c) 2/7			
2. A bag contain	s 3 red and 2	blue marbles. A	marble is drawn at		
random. The pro					
(a) 3/5	(b) 2/5	(c) 0/5	(d) 1/5		
3. The probabilit	ty that it will r	ain tomorrow is	0.85. What is the		
probability that it					
			(d) none of these		
•	-		ted from the numbers		
(1, 2, 3,,15	•				
	, ,	(c) 2/15	• •		
5. What are the					
		(c) 8			
	-		ted at random from the		
numbers (1,2,3, .			_		
` '		• • • • • • • • • • • • • • • • • • • •	5 (d) none of these		
7. The sum of th					
, ,		c) 0 (d) no			
•	•	•	se the correct answer		
for that which is			(1)		
			(d) none of these.		
			nan the probability of		
getting at least to	wo heads, is:		(1) (1)		
(a) 1/4	(b) 3/8	(c) ½	(d) 1/8		
10. A letter is cl					
♦ ASSASSINATI	ON. The pr	obability that the	e letter chosen has:		
(a) 6/13	(b) 7/13	(c) 1	(d) none of these.		
44 4 11 1 11	- • 1.1				
			etting 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 hea		(5) 5			
(A) 3/4 (B) 1/4	(C) 1/2	(D) 0			
13. Two dice are thrown simultaneously. The probability of getting a					

1

sum of 9 is:

(A) 1/10	(B) 3/10	(C) 1/9	(D) 4/9				
14. 100 cards are numbered from 1 to 100. Find the probability of getting a prime number.							
(A) 3/4	(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	C) 15 (E	0) 20				
	t random from tl		ve bulbs. One bulb i e probability that it				
(A) 143/15	(B) 147/	150 (C) 1/2	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							
18. What is the probability of getting 53 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:							
(A) 364/365	(B) 31/365	(C) 1/365	(D) 1/133225				
2. Then the	per <i>x</i> is chosen at r probability that x ² B) 2/5 (C) 3/5	< 2 is?	numbers -2, -1, 0 , 1,				
a marble is red is 2/3, t	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						
Then the pr	er is selected at ra obability that it is a (B) 4/25 (C) 1/2	a mu <mark>ltiple of 3</mark> and	60 natural numbers. d 4 is:				
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) $\frac{1}{21}$	$d)\frac{4}{21}$				
	cored by batsman The standard devi	_	hes are 50, 70, 82,				
	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.							
	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) $^{1}/_{3}$		d) $\frac{1}{6}$				
a) 8	ariate between 0 ai b) 7		(1) 9				
31. The random variables X and Y have variances 0.2 and 0.5 respectively. Let Z= 5X-2Y. The variance of Z is?							

probability:	?	·	one is not possi	ble in			
a) $P(x) = 1$ c) $P(x) = 0.5$	b) ∑ x 5 <mark>d) P(</mark>	P(x) = 3 P(x) = -0.5					
	= 2 and E(z) = 4		x) =?				
a) 2	b) 6	c) 0	d) Ins	ufficient data			
34.The cov	ariance of two	independen	t random variab	le is			
a) 1	b) 0	c) - 1	d) Un	defined			
35.If Σ P(x) a) 0) = k² – 8 then b) 1	, the value of c) 3		sufficient data			
, ,	0.5 and x = 4 , b) 0.5	• •	d) 2				
37.In a discis always?	37.In a discrete probability distribution, the sum of all probabilities is always?						
a) 0	b) Infinite	c) 1	d) Und	efined			
38.If the probability of hitting the target is 0.4, find mean and variance.							
	b) 0.6,	0.24	c) 0.4, 0.16	d) 0.6, 0.16			
target is 60 a) 0.6, 0.24	% and if 10 bo	ombs are drop c) 0.	ped from a place oped, find mean 4, 0.16 d) 1				
41. What is	s the mean and	d variance fo	r standard norm	al distribution?			

c) 5

d) 7

a) 3

b) 4

a) Mean is 0 and variance is 1 b) Mean is 1 and variance is 0 c) Mean is 0 and variance is ∞ d) Mean is ∞ and variance is 0								
	42. Variance of a random variable X is given by a) $E(X)$ b) $E(X2)$ c) $E(X2)$ - $E(X3)$ d) $E(X3)$ d) $E(X3)$							
a) E	43.Mean of a random variable X is given by a) E(X)							
44.N a) 0	44.Mean of a constant 'a' is a) 0							
	45.Variance of a constant 'a' is . a) 0							
46.Find the mean and variance of X?								
	X	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?

	X	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

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}