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			
			marble is drawn at			
random. The pro	bability of drav	ving a black ball	is:			
(a) 3/5	(b) 2/5	(c) $0/5$	(d) 1/5			
3. The probability	ty that it will rai	in tomorrow is 0	0.85. What is the			
probability that it	t will not rain to	omorrow				
(a) 0.25	(b) 0.145	(c) 3/20	(d) none of these			
4. What is the pr	obability that a	number select	ed from the numbers			
(1, 2, 3,,15	•					
(a) 1/5	(b) 4/5	(c) 2/15	(d) 1/3			
5. What are the						
• •	• •	(c) 8	•			
<u>-</u>		number selecte	ed at random from the			
numbers (1,2,3, .						
• •		1 7	(d) none of these			
7. The sum of the	-					
• •		0 (d) non				
	-	are given; choos	se the correct answer			
for that which is						
			(d) none of these.			
		ultaneously, tha	an the probability of			
getting at least t			4.0			
(a) 1/4	(b) 3/8	(c) ½	(d) 1/8			
10. A letter is cl						
♦ ASSASSINATI	ON. The prob	bability that the	letter chosen has: (d) none of these.			
(a) 6/13	(b) 7/13	(c) 1	(d) none of these.			
	<u>-</u>		ting an even number.			
(A) 2/3	(B) 1	(C) 5/6	(D) 1/2			
40 T						
12. Two coins are thrown at the same time. Find the probability of						
getting both hea		(D) 0				
(A) 3/4 (B) 1/4	(C) 1/2	(D) 0				
13. Two dice are thrown simultaneously. The probability of getting a						

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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) 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	(D) 147	7/150 (C)	1/23	(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							

same birthd	lay is the sar	ne birthday	is:	ooth will have the (D) 1/133225		
(1) 004/000	, (B) 3	1/303	(0) 1/303	(D) 17 100220		
2. Then the	probability t B) 2/5	hat x ² < 2 is	?	numbers -2, -1, 0 , 1,		
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) 4/21		
27. Runs scored by batsman in 5 one day matches are 50, 70, 82, 93, and 20. The standard deviation is						
a) 25.79	b) 25.49	c)	25.29	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, 1	8	c) 18, 15	d) 13, 16		
29. A coin is tossed up 4 times. The probability that tails turn up in 3 cases is						
				d) $^{1}/_{6}$		
30. X is a va a) 8	riate betwee	en 0 and 3.	The value of	E(X ²) is		
<i>a.</i>) <i>c</i>	b) 7	c) 27		1) 9		

respectively. Let Z= 5X-2Y. The variance of Z is?

32.Out of the probability?	•	alues, which	one is not poss	ible in
	b) ∑ x d) P(x	P(x) = 3 x) = -0.5		
33.If E(x) =	2 and E(z) = 4 b) 6	I, then E(z - c) 0	•	sufficient data
34.The cov	ariance of two	independer	nt random variab	le is
a) 1	b) 0	c) – 1	d) Ur	ndefined
35.If Σ P(x) a) 0	b) 1 = k ² - 8 then	the value o		sufficient data
, ,	0.5 and x = 4, b) 0.5	• •	? d) 2	
37.In a disc is always?	rete probabilit	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 m	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 norm	nal distribution?

c) 5

d) 7

a) 3

b) 4

				•		l variance nd varianc			
		e of a rand b) E(X			•		. d) (E(X))2		
43.l a) E	Mean of (X)	a random b) E(X2	variable 2)	X is giv c) E(X2)	ren by - (E(X))2	2	d) (E(X))2		
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?									
ŗ	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?

	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



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