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 pro	bability of dra	awing <mark>a black</mark> ba	ll is :				
(a) 3/5	(b) 2/5	(c) 0/5	(d) 1/5				
3. The probabilit	y 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							
(a) 1/5							
5. What are the							
* *	, ,	(c) 8	* *				
		e number select	ed at random from the				
numbers (1,2,3, .	35) is :						
			(d) none of these				
7. The sum of th							
• •	` '	c) 0 (d) nor					
_	_	_	se the correct answer				
for that which is not possible.							
			(d) none of these.				
		multaneously, th	an the probability of				
getting at least two heads, is:							
		(c) ½					
10. A letter is ch							
♦ ASSASSINATION	$DN oldsymbol{\phi}$. The pro	obability that the	e letter chosen has: (d) none of these.				
(a) 6/13	(b) 7/13	(c) 1	(d) none of these.				
			tting 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							
		ie same time. Fii	nd the probability of				
getting both head		(D) 0					
(A) 3/4 (B) 1/4	(C) 1/2	(ט) ט					
13. Two dice are	thrown simu	Itaneously. The p	probability of getting a				

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.								
• •	(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					
taken out a	t random fron ve bulb is:	n this box. 1	Then the pro	ulbs. One bulb is obability that it is				
(A) 143/150) (B) 14	7/150	(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								
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								
				arravy vybiab ia				
equally like 1,2,312	ly to come to	rest pointing that	g to one of it will point	to an odd number is:				
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:						
			(C) 1/365	(D) 1/133225	
23. A num 2. Then the (A) 1/5	probabilit	y that $x^2 < 2$		e numbers -	2, -1, 0 , 1,	
a marble is	drawn at r then t <mark>he nu</mark>	andom from Imber of wi	ome are red a m the jar, the nite marbles i	probability	that it is	
	robability t	hat it is a n	om from first nultiple of 3 a (<mark>D) 2/25</mark>		numbers.	
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) $\frac{4}{21}$		
	-		5 one day ma	tches are 5	0, 70, 82,	
			on is . c) 25.29	d) 25	.69	
			e messages r 8, 4, 18, 13, 17		9	
	-		c) 18, 15		d) 13, 16	
29. A coin 3 cases is		up 4 times.	The probabil	ity that tails	s turn up in	
a) $\frac{1}{2}$	b) ¹ ariate betv	veen 0 and	c) $\frac{1}{4}$ 3. The value 27	of E(X²) is ₋		
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?	•	lues, which	one is not poss	ible in
a) $P(x) = 1$	b) ∑ x l			
c) $P(x) = 0.5$	d) P(x	(x) = -0.5		
33.If E(x) =	2 and E(z) = 4 , b) 6	c) 0	•	sufficient data
34.The cov	ariance of two	independen	t random variab	le is
a) 1	b) 0	c) - 1	d) Ur	ndefined
, ,	b) 1 b) 1	the value of		sufficient data
• •	0.5 and x = 4, t b) 0.5	, ,	d) 2	
37.In a disc is always?	rete probability	y distributio	n, the sum of al	l probabilities
a) 0	b) Infinite	c) 1	d) Und	defined
38.If the pr	obability of hit	ting the targ	jet is 0.4, find m	nean and
	b) 0.6, 0	0.24	c) 0.4, 0.16	d) 0.6, 0.16
target is 60	•	nbs are dro	pped, find mean	e will strike the and variance? d) 4, 1.6
a) 2	e mean of tossi b) 4 the mean and	c) 8	d) 1 r standard norm	nal distribution?

a) 3 b) 4 c) 5

•		and varia		•				
		e of a rand b) E(X					- · d) (E(X))2	
		a random b) E(X2		_	•		d) (E(X))2	
44.N a) 0	44.Mean of a constant 'a' is a) 0							
	/ariance	of a cons	tant 'a' is	c) a/2		d) 1		
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

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}