

CHOITHRAM SCHOOL MANIKBAGH INDORE**CLASS – XI Session: 2018-19****Subject: Mathematics**
Allotment Date: 11.01.19**Assignment No: 4**
Submission Date: 16.01.19

S.No	QUESTIONS	MARKS	LEVEL
VERY SHORT ANSWER TYPE			
1	Determine the number of 5 card combinations out of a deck of 52 cards if there is exactly one ace in each combination.	1 MARK	Knowledge
2	How many chords can be drawn through 21 points on a circle?	1 MARK	Understanding
3	Find the ratio in which the YZ-plane divides the line segment formed by joining the points $(-2, 4, 7)$ and $(3, -5, 8)$.	1 MARK	H.O.T
SHORT ANSWER TYPE I			
4	It is required to seat 5 men and 4 women in a row so that the women occupy the even places. How many such arrangements are possible?	2 MARKS	Knowledge
5	The English alphabet has 5 vowels and 21 consonants. How many words with two different vowels and 2 different consonants can be formed from the alphabet?	2 MARKS	Understanding
6	How many words, with or without meaning, each of 2 vowels and 3 consonants can be formed from the letters of the word DAUGHTER?	2 MARKS	H.O.T
7	Find the coordinates of the point which divides the line segment joining the points $(-2, 3, 5)$ and $(1, -4, 6)$ in the ratio (i) 2:3 internally, (ii) 2:3 externally.	2 MARKS	Logical Reasoning
SHORT ANSWER TYPE II			
8	Out of 100 students, two sections of 40 and 60 are formed. If you and your friend are among the 100 students, what is the probability that (a) you both enter the same section? (b) you both enter the different sections?	3 MARKS	Understanding
9	A committee of 7 has to be formed from 9 boys and 4 girls. In how many ways can this be done when the committee consists of: (i) exactly 3 girls? (ii) atleast 3 girls? (iii) atmost 3 girls?	3 MARKS	Multi conceptual
10	Find the coordinates of a point on y-axis which are at a distance of $5\sqrt{2}$ from the point P $(3, -2, 5)$.	3 MARKS	Understanding
LONG ANSWER TYPE			
11	If A and B be the points $(3, 4, 5)$ and $(-1, 3, -7)$, respectively, find the equation of the set of points P such that $PA^2 + PB^2 = k^2$, where k is a constant.	5 MARKS	H.O.T
12	If 4-digit numbers greater than 5,000 are randomly formed from the digits 0, 1, 3, 5, and 7, what is the probability of forming a number divisible by 5 when, (i) the digits are repeated? (ii) the repetition of digits is not allowed?	5 MARKS	Logical Reasoning