

Sri A.S.N.M GOVERNMENT COLLEGE (A),
PALAKOL, W.G.DT.



VALUE ADDED COURSE

IN MATHEMATICS

(2018-2019)

“BUSINESS MATHAMATICS”

COURSE COORDINATOR

Sri.K.SIVA KRISHNA, Lecturer in Mathematics

DEPARTMENT OF MATHEMATICS

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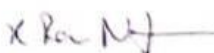
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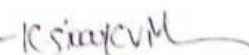
Minutes of the meeting

The Department of Mathematics staff held meeting on 26-11-2018 and passed resolution to organize Value Added Course that is on "Business Mathematics-(Binomial Theorem and Permutations and Combinations)" under the guidelines of Sri K. Ramanarayana , In-Charge of Mathematics for 30 working days.

The Value Added Course in "Business Mathematics- (Binomial Theorem and Permutations and Combinations)" was organized from 28-11-2018 to 10-01-2019 for the academic year 2018-2019 to the III B.Sc. M.P.C & MPCs students under curriculum enrichment programme.

Signature of the staff Members :

Sri K. Ramanarayana, In-Charge of Mathematics 

K.SIVA KRISHNA, Contract Lecturer in Mathematics 

D.R.R Sudhakar, Guest Faculty in Mathematics 


PRINCIPAL
Sri A.S.N.M GOVT COLLEGE (A)
PALAKOL-534 260, W.G.DIST

Report on Value Added Course

“Business Mathematics-(Binomial Theorem and Permutations and Combinations)”

Introduction:

Department of Mathematics conducted Value Added Course in “Business Mathematics-(Binomial Theorem and Permutations and Combinations)” during the Academic year 2018-2019 under curriculum enrichment Programme.

Permutation and Combination: Permutation and Combination are one of the most important concepts in Mathematics. It is used in the practical applications in science, engineering and research, and many other fields. The difference between permutation and combination can be defined as; when a set of data is selected from a certain group, it is known as permutation; while the order in which the data is arranged is known as combination. Thus, we can say that permutation is an ordered combination.

A permutation is an arrangement in a definite order of several objects taken, some or all at a time, with permutations, every tiny detail matters. It means the order in which elements are arranged is significant. The combination is a way of selecting elements from a set so that the order of selection doesn't matter. With the combination, only choosing elements matters. It means the order in which elements are chosen is not essential.

$${}^nPr = n!/(n - r)!$$

$${}^nC_r = n!/(n - r)!r!$$

There are many uses of permutation and combination in our day-to-day life. Some common areas where permutation is used are arranging people, digits, numbers, alphabets, letters, and colours. Selection of menu, food, clothes, subjects, the team are examples of combinations.

A binomial Theorem is a powerful tool of expansion, which has application in Algebra, probability, etc. Binomial Expression: A binomial expression is an algebraic expression that contains two dissimilar terms.

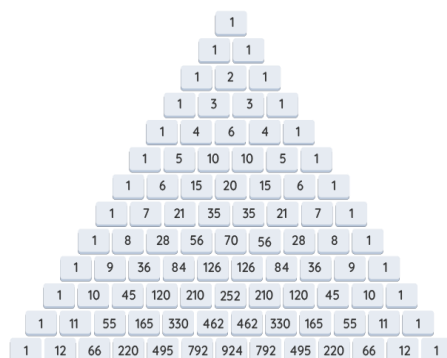
An algebraic expression containing two terms is called a binomial expression, Bi means two and nom means term. Thus the general type of a binomial is $a + b$, $x - 2$, $3x + 4$ etc. The expression of a binomial raised to a small positive power can be solved by ordinary multiplication, but for large power the actual multiplication is laborious and for fractional power actual multiplication is not possible. By means of binomial theorem, this work reduced to a shorter form. This theorem was first established by Sir Isaac Newton.

The first mention of the binomial theorem was in the 4th century BC by a famous Greek mathematician by name of Euclids. The binomial theorem states the principle for expanding the algebraic expression $(x + y)^n$ and expresses it as a sum of the terms involving individual exponents of variables x and y . Each term in a binomial expansion is associated with a numeric value which is called coefficient.

Important Topics of Binomial Theorem

1. Binomial Theorem for Positive Integral Index
2. Pascal's Triangle
3. General Term
4. Middle Term
5. Properties and Application of Binomial Theorem

Pascal triangle



Course Objectives:

“Business Mathematics-(Binomial Theorem and Permutations and Combinations)” course student should be able to do the following

- Define permutations and combinations
- Apply the concept of permutations to problem solving.
- Apply the concept of Combinations to problem solving..
- Work with combinations.
- Generate rows of Pascal's triangle.
- Use the binomial theorem to expand polynomials, and to identify terms for a given polynomial.

Learning Outcomes

“Business Mathematics-(Binomial Theorem and Permutations and Combinations)”

- Identify binomial coefficients given the formula for a combination.
- Expand a binomial using the binomial theorem.
- Use the binomial to find a single term in a binomial.

VALUE ADDED COURSE TIME TABLE

2018-2019

DEPARTMENT OF MATHEMATICS

S.NO.	DATE	CLASS	TIMINGS
1	28-11-2018	III MPC, III MPCs	9:00AM-10:00AM
2	29-11-2018	III MPC, III MPCs	9:00AM-10:00AM
3	30-11-2018	III MPC, III MPCs	9:00AM-10:00AM
4	1-12-2018	III MPC, III MPCs	9:00AM-10:00AM
5	3-12-2018	III MPC, III MPCs	9:00AM-10:00AM
6	4-12-2018	III MPC, III MPCs	9:00AM-10:00AM
7	5-12-2018	III MPC, III MPCs	9:00AM-10:00AM
8	6-12-2018	III MPC, III MPCs	9:00AM-10:00AM
9	7-12-2018	III MPC, III MPCs	9:00AM-10:00AM
10	10-12-2018	III MPC, III MPCs	9:00AM-10:00AM
11	11-12-2018	III MPC, III MPCs	9:00AM-10:00AM
12	12-12-2018	III MPC, III MPCs	9:00AM-10:00AM
13	14-12-2018	III MPC, III MPCs	9:00AM-10:00AM
14	15-12-2018	III MPC, III MPCs	9:00AM-10:00AM
15	17-12-2018	III MPC, III MPCs	9:00AM-10:00AM
16	18-12-2018	III MPC, III MPCs	9:00AM-10:00AM
17	19-12-2018	III MPC, III MPCs	9:00AM-10:00AM
18	20-12-2018	III MPC, III MPCs	9:00AM-10:00AM
19	22-12-2018	III MPC, III MPCs	9:00AM-10:00AM
20	27-12-2018	III MPC, III MPCs	9:00AM-10:00AM
21	28-12-2018	III MPC, III MPCs	9:00AM-10:00AM
22	30-12-2018	III MPC, III MPCs	9:00AM-10:00AM
23	2-1-2019	III MPC, III MPCs	9:00AM-10:00AM
24	3-1-2019	III MPC, III MPCs	9:00AM-10:00AM
25	4-1-2019	III MPC, III MPCs	9:00AM-10:00AM
26	5-1-2019	III MPC, III MPCs	9:00AM-10:00AM
27	7-1-2019	III MPC, III MPCs	9:00AM-10:00AM
28	8-1-2019	III MPC, III MPCs	9:00AM-10:00AM
29	9-1-2019	III MPC, III MPCs	9:00AM-10:00AM
30	10-1-2019	III MPC, III MPCs	9:00AM-10:00AM

List of Enrolled students for Value Added Course

S.No	Regd. No	class	Name of the Student
1	1621001	III B.Sc MPC	A.V.V.RAGAVA KUMAR
2	1621002	III B.Sc MPC	BANDI GEETHA SRI
3	1621003	III B.Sc MPC	BANDI SAI RAM
4	1621004	III B.Sc MPC	B.DHARMA TEJA
5	1621005	III B.Sc MPC	B.RATNA SRI
6	1621006	III B.Sc MPC	CH. ANIL KUMAR
7	1621007	III B.Sc MPC	CH. DURGA RAO
8	1621008	III B.Sc MPC	CH. HEMA MUTYAVANI
9	1621009	III B.Sc MPC	DASARI RAJA
10	1621012	III B.Sc MPC	G. SAI DURGA PRASAD
11	1621015	III B.Sc MPC	J. GUNA DEEP CHANDU
12	1621016	III B.Sc MPC	K. MARTIN
13	1621018	III B.Sc MPC	K. JYOTHI
14	1621019	III B.Sc MPC	K. DURGA SRINIVAS
15	1621020	III B.Sc MPC	M. RAMESH
16	1621021	III B.Sc MPC	M. KIRAN BABU
17	1621022	III B.Sc MPC	M. POLAYYA
18	1621023	III B.Sc MPC	N. BENARJEE
19	1621024	III B.Sc MPC	N. VEERESWARUDU
20	1621025	III B.Sc MPC	P. VENKATA SAI NAGU
21	1621026	III B.Sc MPC	P.SURESH BABU
22	1621028	III B.Sc MPC	P.NUBALA
23	1621027	III B.Sc MPC	P. BABU
24	1621030	III B.Sc MPC	S.PAVAN KUMAR
25	1621031	III B.Sc MPC	S.DURGA RAO
26	1621032	III B.Sc MPC	S. SAI KUMAR
27	1621033	III B.Sc MPC	S. YAMINI RENUKA
28	1621034	III B.Sc MPC	SRAVANI G.
29	1621036	III B.Sc MPC	V. RENUKA
30	1522036	III B.Sc MPCs	G. BALA GANGADHAR
31	1622037	III B.Sc MPCs	A.SAI DURGA PRASAD
32	1622038	III B.Sc MPCs	B. MOHAN SAI
33	1622040	III B.Sc MPCs	CH. D.V. PHANI KUMAR
34	1622041	III B.Sc MPCs	CH. CHARAN
35	1622042	III B.Sc MPCs	CH. MOHAN KRISHNA
36	1622043	III B.Sc MPCs	CH. DORA BABU
37	1622044	III B.Sc MPCs	CH.ROHINI DURGA
38	1622045	III B.Sc MPCs	D. TEJA
39	1622046	III B.Sc MPCs	N.D. RAJYA LAKSHMI

40	1622049	III B.Sc MPCs	KAPA SANDEEP KUMAR
41	1622050	III B.Sc MPCs	K. J. CH. SANDEEP
42	1622052	III B.Sc MPCs	KOTA SANDEEP
43	1622053	III B.Sc MPCs	M. HEMA LATHA
44	1622054	III B.Sc MPCs	M. LAKSHMI BINDHU
45	1622055	III B.Sc MPCs	M. GEETHIKA
46	1622056	III B.Sc MPCs	M. SATYA VARDAN
47	1622057	III B.Sc MPCs	N. SAI KUMAR
48	1622058	III B.Sc MPCs	N. PREETHAM
49	1622060	III B.Sc MPCs	P. HEMA CHANDU
50	1622062	III B.Sc MPCs	P.MADHU BALA
51	1622063	III B.Sc MPCs	P.RAJESH
52	1622064	III B.Sc MPCs	R. VIJAYA BABU
53	1622065	III B.Sc MPCs	T. CHITTI BABU
54	1622066	III B.Sc MPCs	T. SAHITI
55	1622067	III B.Sc MPCs	V. YAKSHITH
56	1622068	III B.Sc MPCs	V. SATYA MAHESH
57	1622070	III B.Sc MPCs	Y. SATISH
58	1622071	III B.Sc MPCs	N. PRABHU
59	1622072	III B.Sc MPCs	V. RAJEEV CHANDRA
60	1622073	III B.Sc MPCs	D. PRANEETH RAJ
61	1622074	III B.Sc MPCs	Y. NAGA SAI RAM

Attendance of students III B.Sc.(MPC)& III B.Sc.(MPCs)
(28-11-2018 to 10-01-2019) 30 days from 9am to 10 am

S.No	Regd No.	Name of the student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			28/11	29/11	30/11	01/12	03/12	04/12	05/12	06/12	07/12	10/12	11/12	12/12	13/12	14/12	15/12
1	1621001	A.V.V.RAGAVA KUMAR	p	p	p	p	p	A	A	P	A	P	P	P	A	P	P
2	1621002	BANDI GEETHA SRI	P	A	P	A	A	P	P	A	P	P	A	A	P	P	P
3	1621003	BANDI SAI RAM	P	P	P	P	P	P	P	P	A	p	p	p	p	P	P
4	1621004	B.DHARMA TEJA	P	P	P	A	p	P	P	A	p	p	p	p	A	p	P
5	1621005	B.RATNA SRI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	1621006	CH. ANIL KUMAR	P	P	A	p	P	P	A	p	P	P	P	A	p	A	p
7	1621007	CH. DURGA RAO	P	A	p	A	p	P	A	p	P	P	A	p	P	P	P
8	1621008	CH. HEMA MUTYAVANI	P	A	p	P	A	p	P	A	p	P	P	P	A	p	P
9	1621009	DASARI RAJA	P	P	P	A	A	p	P	P	P	A	p	P	A	p	P
10	1621012	G. SAI DURGA PRASAD	P	A	p	P	A	A	p	P	P	A	p	P	P	A	p
11	1621015	J. GUNA DEEP CHANDU	P	P	P	P	P	P	A	p	P	P	P	A	p	P	P
12	1621016	K. MARTIN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	1621018	K. JYOTHI	P	A	p	P	P	P	P	A	p	P	P	A	p	P	P
14	1621019	K. DURGA SRINIVAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	1621020	M. RAMESH	P	A	p	A	p	P	P	P	P	P	A	p	P	P	P
16	1621021	M. KIRAN BABU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	1621022	M. POLAYYA	P	P	A	p	P	P	A	p	P	P	A	p	P	P	P
18	1621023	N. BENARJEE	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	1621024	N. VEERESWARUDU	P	A	p	P	A	p	P	P	A	p	P	P	P	A	p
20	1621025	P. VENKATA SAI NAGU	P	P	P	P	P	P	P	A	p	P	P	P	P	P	P
21	1621026	P.SURESH BABU	P	P	A	p	P	P	P	P	P	P	P	A	p	P	P
22	1621028	P.NUBALA	P	A	p	P	P	P	P	A	p	P	P	P	A	p	P
23	1621027	P. BABU	P	P	P	P	P	P	A	p	P	P	P	P	P	P	P
24	1621030	S.PAVAN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	A	p	P
25	1621031	S.DURGA RAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	1621032	S. SAI KUMAR	P	P	P	A	p	P	A	p	P	P	P	A	p	P	A
27	1621033	S. YAMINI RENUKA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	1621034	SRAVANI G.	P	P	P	P	P	A	p	P	P	P	A	p	P	P	P
29	1621036	V. RENUKA	P	P	P	P	P	P	P	P	A	p	P	P	P	P	P

Value Added Course | 2018-2019

30	1522036	G. BALA GANGADHAR	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P
31	1622037	A.SAI DURGA PRASAD	P	P	P	P	P	A	A	P	A	P	P	P	A	P	P
32	1622038	B. MOHAN SAI	P	A	P	A	A	P	P	A	P	P	A	A	P	P	P
33	1622040	CH. D.V. PHANI KUMAR	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
34	1622041	CH. CHARAN	P	P	P	A	P	P	P	A	P	P	P	P	A	P	P
35	1622042	CH. MOHAN KRISHNA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
36	1622043	CH. DORA BABU	P	P	A	P	P	P	A	P	P	P	P	A	P	A	P
37	1622044	CH.ROHINI DURGA	P	A	P	A	P	P	A	P	P	P	A	P	P	P	P
38	1622045	D. TEJA	P	A	P	P	A	P	P	A	P	P	P	P	A	P	P
39	1622046	N.D. RAJYA LAKSHMI	P	P	P	A	A	P	P	P	P	A	P	P	A	P	P
40	1622049	KAPA SANDEEP KUMAR	P	A	P	P	A	A	P	P	P	A	P	P	P	A	P
41	1622050	K. J. CH. SANDEEP	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P
42	1622052	KOTA SANDEEP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
43	1622053	M. HEMA LATHA	P	A	P	P	P	P	P	A	P	P	P	A	P	P	P
44	1622054	M. LAKSHMI BINDHU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
45	1622055	M. GEETHIKA	P	P	P	P	P	A	A	P	A	P	P	P	A	P	P
46	1622056	M. SATYA VARDAN	P	A	P	A	A	P	P	A	P	P	A	A	P	P	P
47	1622057	N. SAI KUMAR	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
48	1622058	N. PREETHAM	P	P	P	A	P	P	P	A	P	P	P	P	A	P	P
49	1622060	P. HEMA CHANDU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
50	1622062	P.MADHU BALA	P	P	A	P	P	P	A	P	P	P	P	A	P	A	P
51	1622063	P.RAJESH	P	A	P	A	P	P	A	P	P	P	A	P	P	P	P
52	1622064	R. VIJAYA BABU	P	A	P	P	A	P	P	A	P	P	P	P	A	P	P
53	1622065	T. CHITTI BABU	P	P	P	A	A	P	P	P	P	A	P	P	A	P	P
54	1622066	T. SAHITI	P	A	P	P	A	A	P	P	P	A	P	P	P	A	P
55	1622067	V. YAKSHITH	P	P	P	P	P	P	A	P	P	P	P	A	P	P	P
56	1622068	V. SATYA MAHESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
57	1622070	Y. SATISH	P	A	P	P	P	P	P	A	P	P	P	A	P	P	P
58	1622071	N. PRABHU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
59	1622072	V. RAJEEV CHANDRA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
60	1622073	D. PRANEETH RAJ	P	A	P	P	P	P	P	A	P	P	P	A	P	P	P
61	1622074	Y. NAGA SAI RAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Value Added Course | 2018-2019

S.No	Regd No.	Name of the student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			17/12	18/12	19/12	20/12	22/12	27/12	28/12	30/12	02/01	03/01	04/01	05/01	07/01	08/01	09/01
1	1621001	A.V.V.RAGAVA KUMAR	p	p	p	p	p	A	A	P	A	P	P	P	A	P	P
2	1621002	BANDI GEETHA SRI	P	A	P	A	A	P	P	A	P	P	A	A	P	P	P
3	1621003	BANDI SAI RAM	p	p	p	p	p	p	p	p	A	p	p	p	p	p	p
4	1621004	B.DHARMA TEJA	p	p	p	A	p	p	p	A	p	p	p	p	A	p	p
5	1621005	B.RATNA SRI	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
6	1621006	CH. ANIL KUMAR	p	p	A	p	p	p	A	p	p	p	p	A	p	A	p
7	1621007	CH. DURGA RAO	p	A	p	A	p	p	A	p	p	p	A	p	p	p	p
8	1621008	CH. HEMA MUTYAVANI	p	A	p	p	A	p	p	A	p	p	p	p	A	p	p
9	1621009	DASARI RAJA	p	p	p	A	A	p	p	p	p	A	p	p	A	p	p
10	1621012	G. SAI DURGA PRASAD	p	A	p	p	A	A	p	p	p	A	p	p	p	A	p
11	1621015	J. GUNA DEEP CHANDU	p	p	p	p	p	p	A	p	p	p	p	A	p	p	p
12	1621016	K. MARTIN	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
13	1621018	K. JYOTHI	p	A	p	p	p	p	p	A	p	p	p	A	p	p	p
14	1621019	K. DURGA SRINIVAS	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
15	1621020	M. RAMESH	p	A	p	A	p	p	p	p	p	p	A	p	p	p	p
16	1621021	M. KIRAN BABU	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
17	1621022	M. POLAYYA	p	p	A	p	p	p	A	p	p	p	A	p	p	p	p
18	1621023	N. BENARJEE	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
19	1621024	N. VEERESWARUDU	p	A	p	p	A	p	p	p	A	p	p	p	p	A	p
20	1621025	P. VENKATA SAI NAGU	p	p	p	p	p	p	p	A	p	p	p	p	p	p	p
21	1621026	P.SURESH BABU	p	p	A	p	p	p	p	p	p	p	p	A	p	p	p
22	1621028	P.NUBALA	p	A	p	p	p	p	p	A	p	p	p	p	A	p	p
23	1621027	P. BABU	p	p	p	p	p	p	A	p	p	p	p	p	p	p	p
24	1621030	S.PAVAN KUMAR	p	p	p	p	p	p	p	p	p	p	p	p	A	p	p
25	1621031	S.DURGA RAO	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
26	1621032	S. SAI KUMAR	p	p	p	A	p	p	A	p	p	p	p	A	p	p	A
27	1621033	S. YAMINI RENUKA	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
28	1621034	SRAVANI G.	p	p	p	p	p	A	p	p	p	p	A	p	p	p	p
29	1621036	V. RENUKA	p	p	p	p	p	p	p	p	A	p	p	p	p	p	p

Value Added Course | 2018-2019

30	1522036	G. BALA GANGADHAR	p	p	p	p	A	p	p	p	p	p	p	p	A	p	p
31	1622037	A.SAI DURGA PRASAD	p	p	p	p	p	A	A	p	A	p	p	p	A	p	p
32	1622038	B. MOHAN SAI	p	A	p	A	A	p	p	A	p	p	A	A	p	p	p
33	1622040	CH. D.V. PHANI KUMAR	p	p	p	p	p	p	p	p	A	p	p	p	p	p	p
34	1622041	CH. CHARAN	p	p	p	A	p	p	p	A	p	p	p	p	A	p	p
35	1622042	CH. MOHAN KRISHNA	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
36	1622043	CH. DORA BABU	p	p	A	p	p	p	A	p	p	p	p	A	p	A	p
37	1622044	CH.ROHINI DURGA	p	A	p	A	p	p	A	p	p	p	A	p	p	p	p
38	1622045	D. TEJA	p	A	p	p	A	p	p	A	p	p	p	p	A	p	p
39	1622046	N.D. RAJYA LAKSHMI	p	p	p	A	A	p	p	p	p	A	p	p	A	p	p
40	1622049	KAPA SANDEEP KUMAR	p	A	p	p	A	A	p	p	p	A	p	p	p	A	p
41	1622050	K. J. CH. SANDEEP	p	p	p	p	p	p	A	p	p	p	p	A	p	p	p
42	1622052	KOTA SANDEEP	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
43	1622053	M. HEMA LATHA	p	A	p	p	p	p	p	A	p	p	p	A	p	p	p
44	1622054	M. LAKSHMI BINDHU	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
45	1622055	M. GEETHIKA	p	p	p	p	p	A	A	p	A	p	p	p	A	p	p
46	1622056	M. SATYA VARDAN	p	A	p	A	A	p	p	A	p	p	A	A	p	p	p
47	1622057	N. SAI KUMAR	p	p	p	p	p	p	p	p	A	p	p	p	p	p	p
48	1622058	N. PREETHAM	p	p	p	A	p	p	p	A	p	p	p	p	A	p	p
49	1622060	P. HEMA CHANDU	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
50	1622062	P.MADHU BALA	p	p	A	p	p	p	A	p	p	p	p	A	p	A	p
51	1622063	P.RAJESH	p	A	p	A	p	p	A	p	p	p	A	p	p	p	p
52	1622064	R. VIJAYA BABU	p	A	p	p	A	p	p	A	p	p	p	p	A	p	p
53	1622065	T. CHITTI BABU	p	p	p	A	A	p	p	p	p	A	p	p	A	p	p
54	1622066	T. SAHITI	p	A	p	p	A	A	p	p	p	A	p	p	p	A	p
55	1622067	V. YAKSHITH	p	p	p	p	p	p	A	p	p	p	p	A	p	p	p
56	1622068	V. SATYA MAHESH	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
57	1622070	Y. SATISH	p	A	p	p	p	p	p	A	p	p	p	A	p	p	p
58	1622071	N. PRABHU	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
59	1622072	V. RAJEEV CHANDRA	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
60	1622073	D. PRANEETH RAJ	p	A	p	p	p	p	p	A	p	p	p	A	p	p	p
61	1622074	Y. NAGA SAI RAM	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p

Value Added Course Syllabus

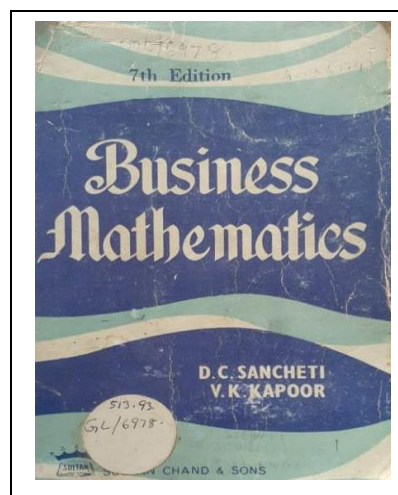
SYLLABUS :
Unit-1 BINOMIAL THEOREM 1. Introduction ,Binomial Theorem 2. Position of Terms, Binomial Coefficients
Unit-2 PERMUTATIONS AND COMBINATIONS 1. Permutations 2. Circular Permutations. 3. Combinations.

TEXT BOOK:

BUSINESS
MATHEMATICS

BY

D.C.SANCHETI
V.K.KAPOOR



Other Details:

Duration of Course	:	30 Hours
Classes starting Date	:	28-11-2017
Classes ended Date	:	10-01-2018
Certificate issued on	:	18-01-2018
Classes Timings	:	9:00 AM – 10:00 AM
Resource Persons	:	1. Sri K. Siva Krishna 2. Sri. D.R.R Sudhakar

Conclusion :

This certificate course develops the mathematical concepts and technique which should serve as a preparation for more advanced quantitative courses.



MODEL CERTIFICATE

