



Government Degree College

Affiliated to Andhra University

(Upgraded to Model Degree College under RUSA 2.0)

Paderu, Alluri Sitharama Raju - District, AP.

Est:1985 NAAC "C" Grade phone no: 08935 250013

Email.ID :paderu.jkc@gmail.com.



DEPARTMENT OF MATHEMATICS

CAREER COUNSELLING TO STUDENTS



Government Degree College

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To,

The Principal,

Government Degree College

Paderu,

Alluri Sitharamaraju Dist.,

Sir,

Date:

Sub: Requisition for permission to the Career Guidance on job opportunities in Mathematics on 31-09-2022 request -Reg.

I wish to inform you that Department of Mathematics is going to conduct the Career Guidance to the students on job opportunities in Mathematics at Government Degree College, Paderu, AlluriSitharamaraju Dist., on 31-09-2022. Hence I request you to depute Sri.M.Rama Krishna, Lecturer in Mathematics. Kindly receive and grant the required permission to the above mentioned.

Thanking you sir

K. Brahasma Kumari

With regards

b. ch

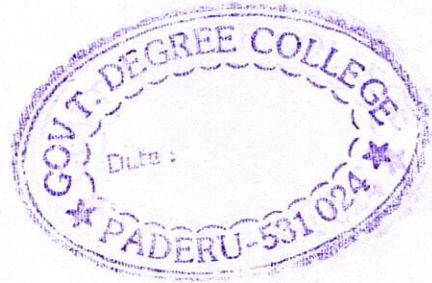
(Dr.V.Chittabai)pal

Principal

Government Degree College

PADERU 534 024

Alluri Sitharama Raju-Dist.





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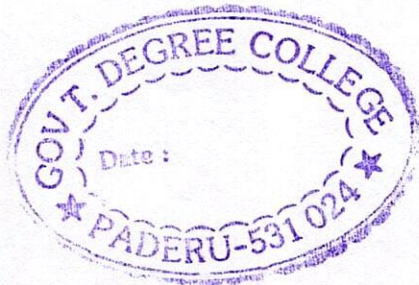
CIRCULAR

This is informed to all the college students that there will be lecture on career opportunities in Mathematics for graduates by resource person Sri.M.Rama Krishna, Lecturer in Mathematics on 31-09-2022 in seminar hall. Hence all the students are informed to attend the programme and make it successful.

K. Prasanna Kumari
Department of Mathematics
Lecturer
Govt. Degree College
PADERU-531024
Alluri Sitharama Raju Dist.

[Signature]
Coordinator
Career Guidance Cell

[Signature]
Principal
Govt. Degree College
PADERU 534 024
Alluri Sitharama Raju-Dist.





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DEPARTMENT OF MATHEMATICS

Students Participated in Career Counselling

S No	Reg No	Student Name	Year	Group	Signature
1	721125405049	B. Divya Veni		III rd BSC MPC	B. Divya Veni
2	721125405069	M. Arunakumari		III rd BSC MPC	M. Arunakumari
3	7211254051212	T. Vishalakshi		III (MPWT)	T. Vishalakshi
4	721125405192	B. Madhavi		IV (MPC)	B. Madhavi
5	721125405064	K. Deena		III (MPC)	K. Deena
6	721125405201	K. Anjeetha		III rd (MPWT)	K. Anjeetha
7	721125405211	S. Gayathri Jushi		III rd (MPWT)	S. Gayathri Jushi
8	721125405087	V. Saitamma		III rd MPC	V. Saitamma
9	121125404007	T. Jyothi		III rd B. COM (V)	T. Jyothi
10	121125409024	M. Jhansi Bai		III B. COM (V)	M. Jhansi Bai
11	121125404026	N. Madhulatha		III B. COM (V)	N. Madhulatha
12	121125404018	K. Ambika		III rd B. COM (V)	K. Ambika
13	721125405072	N. Jashma Devi		III rd B. SC (MPC)	N. Jashma Devi
14	721125405075	P. Lakshmi		III rd B. SC (MPC)	P. Lakshmi
15	721125405027	M. Susmitha		III rd BSC MPC	M. Susmitha
16	721125405021	K. Nagamani		III rd BSC MPC	K. Nagamani
17	721125405035	R. Manoharani		III rd BSC MPC	R. Manoharani
18	721125405002	B. Madhakondamma		III rd BSC MPC	B. Madhakondamma
19	721125405081	R. Jhansi		III rd BSC MPC	R. Jhansi
20	721125405193	B. Raviteja Kumari		III rd BSC MPWT	B. R. T. Kumari



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Activity

Career Guidance Cell

A Career Guidance lecture is organized by Department of Mathematics on “**Job Opportunities in Mathematics**” with **Sri M.Rama Krishna**, Lecturer in Mathematics. He explained about the career options to the students about graduation in Mathematics as a subject in research labs and also he strongly recommended students to go to higher education to improve their career opportunities.

After this lecture the students clarified their doubts regarding this and 60 students benefitted through this programme.



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S No	Reg No	Student Name	Year	Group	Signature
21	721117305039	Varaboini Swathi		MPCS	V. Swathi
22	721125405051	Bonda. Deni		MPCS	B. Deni
23	721125405081	R. Jhansi		MPCS	R. Jhansi
24	721125405093	B. Ravitejakumari		MPWEB	B. R.T. Kumari
25	721125405086	V. Indu		MPCS	V. Indu
26	721125405048	B. Deepika		MPCS	B. Deepika
27	121125404014	J. Tejaswi		B.Com (V)	J. Tejaswi
28	121125404003	A. Hemalatha		B.Com (V)	A. Hemalatha
29	121125404008	D. Pravalika		B.Com (V)	D. Pravalika
30	121125404041	V. Divya		B.Com (V)	V. Divya
31	121125404045	T. Anjali Devi		B.Com (V)	T. Anjali Devi
32	121125404025	M. Madha Kandamma		B.Com (V)	M. Madha
33	121125404035	P. Vasantha		B.Com (V)	P. Vasantha
34	121125404046	V. Bhavani		B.Com (V)	V. Bhavani
35	121125404001	A. Sathish Kumar		B.Com (V)	A. Sathish
36	121125404015	K. Ganesh		B.Com (V)	K. Ganesh
37	121125404005	A. Thasuru		B.Com (V)	A. Thasuru
38	121125404011	G. LALU PRASAD		B.Com (V)	G. Lalaprasad
39	121125404016	K. POOLDHAR		B.Com (V)	K. Pooldhar
40	121125404044	S. Venkata Rama prabhy		B.Com (V)	S.V.R. Prabhy
41	121125404033	P. Vinika Nunda		B.Com (V)	P. Vinika Nunda
42	121125404022	M. BHANU PRAKASH		B.Com (V)	M. Bhanu Prakash
43	72125405071	M. Uday Kiran Patrudu		MPCS	M. Uday Kiran
44	721125405079	P. Dilip Kumar		MPCS	P. Dilip Kumar
45	721125405066	K. Mohan Kumar		MPCS	K. Mohan Kumar



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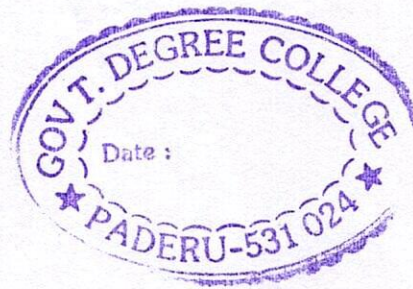
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S No	Reg No	Student Name	Year	Group	Signature
46	121125404012	Golladi pram Kumar		B. Com (V)	G. pram Kumar
47	721125405058	Jassingi Subbarao		B.Sc (mpcs)	J. Subbarao
48	721125405053	B. Ravindra		B.Sc (mpcs)	B. Ravindra
49	721125405047	B. Bhadrageiri		B.Sc (mpcs)	B. Bhadrageiri
50	721125405078	P. Satyanarayana		B.Sc (mpcs)	P. Satyanarayana
51	121125404017	K. Rajesh		B. Com (V)	K. Rajesh
52	121125404055	V. Vasanthkumar		B. Com (V)	V. Vasanthkumar
53	121125404031	P. Narasingh Rao		B. Com (V)	P. Narasingh
54	121125404013	G. Thirupathi Raju		B. Com (V)	G. Thirupathi Raju
55	121125404099	G. Uday Raju		B. Com (V)	G. Uday Raju
56	12112540492	S. padmalatha		B. Com (V)	S. padmalatha
57	721125405021	S. Santhi baby		B.Sc (mpcs)	S. Santhi baby
58		L. Ganikisan		B.Sc (mpcs)	L. Ganikisan
59	721125405068	K. Kishor Kumar		B.Sc (mpcs)	K. Kishor Kumar
60	721125405213	T. shayam		B.Sc (mpcs)	T. shayam



G. U. 
Principal
Govt. Degree College
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DEPARTMENT OF MATHEMATICS

Guidance to PGCET



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To,

Date:

The Principal,

Government Degree College

Paderu,

Alluri Sitharamaraju Dist.,

Sir,

Sub: Requisition for permission to give coaching for perusing higher education in **Mathematics** request -Reg.

I wish to inform you that Department of **Mathematics** is going to conduct the Coaching to the students on PG CET in **Mathematics** at Government Degree College, Paderu, Alluri Sitharamaraju Dist., from 02-03-2023 to 26-03-2023. Kindly grant the required permission to the above mentioned.

Thanking you sir

K. Sarojamma Kumari

With regards

v. u

Principal
(Dr. V. Chittabai)
Govt. Degree College
PADERU 534 024
Alluri Sitharama Raju-Dist.





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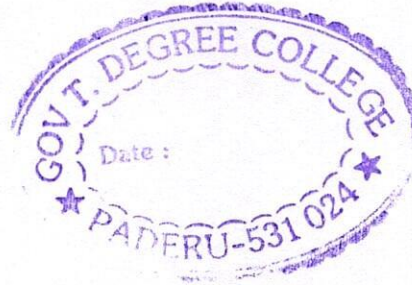


CIRCULAR

This is informed to all the college students department of Physics is going to conduct the coaching on PG CET from 02/03/2023 to 28/03/2023 at Room No.05, old building. Hence all the students are informed to attend the programme and make it successful.

K. Anasamma Kumari
Department of Mathematics

Lecturer
Govt. Degree College
PADERU-531024
Alluri Sitharama Raju Dist.



V. U.
Principal
Govt. Degree College
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DEPARTMENT OF MATHEMATICS

Student Enrollment to PG CET Coaching

S.no	Regd No	Name of the student	Group	Signature
1	720125405002	B.temaik. Harinadh	MPC	B. Harinadh.
2	720125405004	Bissongi Naga mallesh	(MPC)	B. Naga mallesh
3	72015405001	Kokka ramarao	(MPC)	K. ramarao
4	72015405066	poIBA Chimmayadha	(MPCS)	p. Chimmayadha
5	72015405061	Dangi Bhowguru chandru	MPCS	p. Bhowguru chandru
6	72015405067	pothuru poornachandrudu	mPCS	P. poornachandrudu
7	72015405059	M. MUKESH kumar	MPCS	Mukesh
8	72015405054	G. Jyothi	MPCS	G. Jyothi
9	72015405051	A. pragathi	MPC	A. pragathi
10	72015405056	P. Jhansi	MPC	P. Jhansi
11	72015405055	K. PAPARAO	MPCS	K. PAPARAO
12	72015405025	M. madhu	mPC	M. madhu
13	72015405024	K. Dhanalaxmi	mPC	K. Dhanalaxmi
14	72015405074	T. Praveen kumar	MPCS	T. Praveen
15	72015405073	S. Sai suranda	MPCS	S. Suranda
16	72015405022	K. Sandeep	MPC	K. Sandeep
17	72015405003	B. Sankar narayana	MPC	B. Sankar



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9. Higher order linear differential equations: Solution of homogeneous linear differential equations of order n with constant coefficients. Solution of the non-homogeneous linear differential equations with constant coefficients by means of polynomial operators. Method of undetermined coefficients; Method of variation of parameters; Linear differential equations with non-constant coefficients; The Cauchy-Euler equation.

10. System of linear differential equations: Solution of a system of linear equations with Constant coefficients; An equivalent triangular system. Degenerate Case: $p_1(D) p_4(D) - p_2(D) p_3(D) = 0$.

SOLID GEOMETRY

11. The Plane: Equation of plane in terms of its intercepts on the axis, Equations of the plane through the given points, Length of the perpendicular from a given point to a given plane, Bisectors of angles between two planes, Combined equation of two planes, Orthogonal projection on a plane.

12. The Line: Equations of a line, Angle between a line and a plane, The condition that a given line may lie in a given plane, The condition that two given lines are coplanar, Number of arbitrary constants in the equations of a straight line. Sets of conditions which determine a line, The shortest distance between two lines. The length and equations of the line of shortest distance between two straight lines, Length of the perpendicular from a given point to a given line, Intersection of three planes, Triangular Prism.

13. The Sphere: Definition and equation of the sphere, Equation of the sphere through four given points, Plane sections of a sphere. Intersection of two spheres; Equation of a circle. Sphere through a given circle; Intersection of a sphere and a line. Power of a point; Tangent plane. Plane of contact. Polar plane, Pole of a plane, Conjugate points, Conjugate planes; Angle of intersection of two spheres. Conditions for two spheres to be orthogonal; Radical plane. Coaxial system of spheres; Simplified form of the equation of two spheres.

14. Cones, cylinders and conicoids : Definitions of a cone, vertex, guiding curve, generators. Equation of the cone with a given vertex and guiding curve. Enveloping cone of a sphere. Equations of cones with vertex at origin are homogenous. Condition that the general equation of the second degree should represent a cone. Condition that a cone may have three mutually perpendicular generators Intersection of a line and a quadric cone. Tangent lines and tangent plane at a point. Condition that a plane may touch a cone. Reciprocal cones. Intersection of two cones with a common vertex. Right circular cone. Equation of the right circular cone with a given vertex, axis and semi-vertical angle. Definition of a cylinder. Equation to the Cylinder whose generators intersect a given conic and are parallel to a given line, Enveloping cylinder of a sphere. The right circular cylinder. Equation of the right circular cylinder with a given axis and radius. The general equation of the second degree and the various surfaces represented by it; Shapes of some surfaces. Nature of Ellipsoid. Nature of Hyperboloid of one sheet. *



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Syllabus of PGCET

LINEAR ALGEBRA AND VECTOR CALCULUS

1. Linear Algebra: Vector spaces, General properties of vector spaces, Vector subspaces, Algebra of subspaces, linear combination of vectors. Linear span, linear sum of two subspaces, Linear independence and dependence of vectors, Basis of vector space, Finite dimensional vector spaces, Dimension of a vector space, Dimension of a subspace. Linear transformations, linear operators, Range and null space of linear transformation, Rank and nullity of linear transformations, Linear transformations as vectors, Product of linear transformations, Invertible linear transformation. The adjoint or transpose of a linear transformation, Sylvester's law of nullity, characteristic values and characteristic vectors, Cayley- Hamilton theorem, Diagonalizable operators. Inner product spaces, Euclidean and unitary spaces, Norm or length of a vector, Schwartz inequality, Orthogonality, Orthonormal set, complete orthonormal set, Gram - Schmidt orthogonalisation process.

2. Multiple integrals and Vector Calculus: Multiple integrals: Introduction, the concept of a plane, Curve, line integral- Sufficient condition for the existence of the integral. The area of a subset of R^2 , Calculation of double integrals, Jordan curve, Area, Change of the order of integration, Double integral as a limit, Change of variable in a double integration. Vector differentiation. Ordinary derivatives of vectors, Space curves, Continuity, Differentiability, Gradient, Divergence, Curl operators, Formulae involving these operators. Vector integration, Theorems of Gauss and Stokes, Green's theorem in plane and applications of these theorems.

A BSTRACT ALGEBRA & REAL ANALYSIS

3. GROUPS: Binary operations- Definitions and properties, Groups—Definition and elementary properties, Finite groups and group composition tables, Subgroups and cyclic subgroups. Permutations—Functions and permutations, groups of permutations, cycles and cyclic notation, even and odd permutations, The alternating groups. Cyclic groups - Elementary properties, The classification of cyclic groups, sub groups of finite cyclic groups. Isomorphism - Definition and elementary properties, Cayley's theorem, Groups of cosets, Applications, Normal subgroups - Factor groups, Criteria for the existence of a coset group, Inner automorphisms and normal subgroups, factor groups and simple groups, Homomorphism- Definition and elementary properties, The fundamental theorem of homomorphisms, applications.

4. RINGS: Definition and basic properties, Fields, Integral domains, divisors of zero and Cancellation laws, Integral domains, The characteristic of a ring, some non - commutative rings, Examples, Matrices over a field, The real quaternions, Homomorphism of Rings - Definition and elementary properties, Maximal and Prime ideals, Prime fields.

5. REAL NUMBERS: The Completeness Properties of R , Applications of the Supremum Property. Sequences and Series - Sequences and their limits, limit theorems, Monotonic Sequences, Sub-sequences and the Bolzano-Weirstrass theorem, The Cauchy's Criterion, Properly divergent sequences, Introduction to series, Absolute convergence, test for absolute convergence, test for non-absolute convergence. Continuous Functions-continuous functions, combinations of continuous functions, continuous functions on intervals, Uniform continuity.

6. DIFFERENTIATION AND INTEGRATION: The derivative, The mean value theorems, L'Hospital Rule, Taylor's Theorem. Riemann integration - Riemann integral, Riemann integrable functions, Fundamental theorem.

DIFFERENTIAL EQUATIONS

7. Differential equations of first order and first degree : Linear differential equations; Differential equations reducible to linear form; Exact differential equations; Integrating factors; Change of variables; Simultaneous differential equations; Orthogonal trajectories.

8. Differential equations of the first order but not of the first degree: Equations solvable for p ; Equations solvable for y ; Equations solvable for x ; Equations that do not contain x (or y); Equations of the first degree in x and y - Clairaut's equation.

