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

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.

To,

Date:

The Principal,

Government Degree College

Paderu,

Alluri Sitharamaraju Dist.,

Sir,

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 andgrant the required permission to the above mentioned.

Thanking you sir

K. Brahmaramakumari

With regards

(Dr.V.Chittabbai)

Principal

GOVT. DEGREE COLLEGE PADERU-531 024

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

Government Degree College
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.Email.ID :paderu.jkc@gmail.com.

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 Brahmanna Kumari

Department of Mathematics

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

Coordinator
Career Guidance Cell

V. [illegible]

Principal

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

GOVT. DEGREE COLLEGE
Date :
PADERU-531 024

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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 BSC MPCS	B.Divya Veni
2	721125405069	M. Arunakumari		III BSc MPCS	M. Arunakumari
3	721125405212	T. Vishalakshi		III (MPCS)	T. Vishalakshi
4	721125405192	B. Madhavi		III (MPCS)	B. Madhavi
5	721125405064	K. Deena		III (MPCS)	K. Deena
6	721125405201	K. Anjeelta		III rd (MPCS)	K. Anjeelta
7	721125405211	S. Gayathri Jyothi		III rd (MPCS)	S. Gayathri Jyothi
8	721125405087	V. Sowkamma		III rd MPCS	V. Sowkamma
9	121125404007	B. Jyothi		III rd B.com(V)	B. Jyothi
10	121125409024	M Thansi Rani		III B.com(V)	M. Thansi Rani
11	121125404026	N. Madhulatha		III B.com(V)	N. Madhulatha
12	121125404018	K. Ambika		III rd B.com(V)	K. Ambika
13	721125405072	N. Joshna devi		III rd B.Sc(MPCS)	N. Joshnadevi
14	721125405075	P. Lakshmi		III rd B.Sc(MPCS)	P. Lakshmi
15	721125405027	M. Susmitha		III rd BSc MPC	M. Susmitha
16	721125405021	K. Nagamani		III rd BSc MPC	K. Nagamani
17	721125405055	R. Manohar Rani		III rd BSc MPC	R. Manohar Rani
18	721125405002	B. Madhavendamma		III rd BSc MPC	B. Madhavendamma
19	721125405081	R. Thansi		III rd BSc MPCS	R. Thansi
20	721125405193	B. Ravi teja kumari		III rd BSc MPCS	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 Suvalbi		MPCS	V. Suvalbi
22	721125405051	Bonda. Devi		MPCS	B. Devi
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	121125 404003	A. Hemalatha		B.Com (V)	A. Hemalatha
29	121125404008	D. Pravalika		B.Com(V)	D. Pravalika
30	121125404048	V. Divya		B.Com(V)	V. Divya
31	121125404045	T. Anjali Devi		B.Com(V)	T. Anjali Devi
32	121125404025	M. Madhakondamma		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. Thasun		B.Com(V)	A. Thasun
38	121125404011	G. LALU PRASAD		B.Com(V)	G. Laluprasad
39	121125404016	K. POOLDHAR		Bcom(V)	K. pooldhar
40	121125404044	S. Venkata Rama prabhy		B.Com(V)	S.V.R. Prabhy
41	121125404033	P. Vinoka Nanda		B.Com(V)	P. Vinekananda
42	121125404022	M. BHANU PRAKASH		B.Com(V)	M. Bhanuprakash
43	721125405071	M. Uday Kiran pattrudu		MPCS	M. Upattrudu
44	721125405079	P. Dileep Kumar		MPCS	P. Dileep
45	721125405066	K. Mohan Kumar		MPCS	K. Mohan

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S No	Reg No	Student Name	Year	Group	Signature
46	121125404012	Gollapalli Kumar		B.Com(V)	G. Kumar
47	721125405058	Jassingi Subbarao		BSc(MPCS)	J. Subbarao
48	721125405053	B. Ravindra		BSc(MPCS)	B. Ravindra
49	721125405047	B. Bhadragiri		BSc(MPCS)	B. Bhadragiri
50	721125405078	P. Satyanarayana		BSc(MPCS)	P. Satyanarayana
51	121125404017	K. Rajesh		B.Com(Voc)	K. Rajesh
52	121125404055	V. Vasantharao		B.Com(V)	V. Vasantharao
53	121125404031	P. Narsingarao		B.Com(Voc)	P. Narsingarao
54	121125404013	G. Thirupathi Raju		B.Com(Voc)	G. Thirupathi Raju
55	121125404009	G. Uday raju		B.Com(V)	G. Uday Raju
56	121125 4042	S. padmalatha		B.Com(V)	S. padmalatha
57	721125405021	S. Santhi baby		BSc(MPC)	S. Santhi baby
58		L. Gangikiran		BSc(MPC)	L. Gangikiran
59	721125405068	K. Kishor Kumar		BSc(MPC)	K. Kishor Kumar
60	721125405213	T. shayam		BSc(MPWB)	T. shayam

GOVT. DEGREE COLLEGE
Date :
PADERU-531 024

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

Government Degree College

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DEPARTMENT OF MATHEMATICS

Guidance to PGCET

Government Degree College
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Paderu,Alluri Sitharama Raju -District,AP.
Est:1985 NAAC " C "Grade phone no: 08935 250013
Email.ID :paderu.jkc@gmail.com.

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 PGCET in Mathematics at Government Degree College, Paderu, AlluriSitharamaraju Dist., from 02-03-2023 to 26-03-2023.Kindly grant the required permission to the above mentioned.

Thanking you sir

K. Bangaramma Kumpati

With regards

GOVT. DEGREE COLLEGE Date : PADERU-531 024

V.

Principal

(Dr.V.Chittabbai)

Principal

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 PGCET 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. Anjanamma Kumari
Department of Mathematics

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

GOVT. DEGREE COLLEGE
Date :
PADERU-531 024

V. U
Principal
Govt. Degree College
PADERU 534 024
Alluri Sitharama Raju-Dist.

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DEPARTMENT OF MATHEMATICS

Student Enrollment to PGCET Coaching

S.no	Regd No	Name of the student	Group	Signature
1	720125405002	Batamaik. Harinadh	(mpc)	B. Harinadh.
2	720125405004	Bissingi Naga mallesh	(MPC)	B. Naga mallesh
3	720154052[illegible]	Korra ramarao	(MPC)	K. ramarao
4	720154056[illegible]	poIBa chinmayadeva	(MPCS)	P. chinmayadeva
5	720154050[illegible]	pangi Bhargava chandu	MPCS	P. Bhargava chandu
6	720154050[illegible]	pothuru poornachandrudu	mpcs	P. Poornachandrudu
7	720154050[illegible]	M. Mukesh kumar	MPCS	Mukesh
8	720154050[illegible]	G. Jyothi	MPCS	G. Jyothi
9	720154050[illegible]	A. pragathi	MPC	A. Pragathi
10	720154050[illegible]	P. Jhansi	MPC	P. Jhansi
11	720154050[illegible]	K. PaparaO	MPCS	K. Paparao
12	720154050[illegible]	M. madhu	mpc	M. madhu
13	720154050[illegible]	K. Dhanalaxmi	mpc	K. Dhanalaxmi
14	720154050[illegible]	T. Praveen kumar	MPCS	T. Praveen
15	720154050[illegible]	S. Sai suranda	MPCS	S. Suranda
16	720154050[illegible]	K. Sandeep	MPC	K. Sandeep
17	720154050[illegible]	B. Sankar narayana	MPC	B. Sankar

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: $p1(D)\ p4(D)-p2(D)\ p3(D) = 0$.

SOLID GEOMETRY

11. The Plane: Equation of plane in terms of its intercepts on the axis, Equations of the plane through thegiven 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 from 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 R2, 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-Weir strass 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.

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GOVERNMENT DEGREE COLLEGE, PADERU, ASR DIST -531024.

DEPARTMENT OF MATHEMATICS

ACADEMIC YEAR : 2022 -2023

Coaching to PGCET

SL. NO.	NAME OF THE CANDIDATE	2	3	4	6	7	9	10	11	13	14	15	16	17	18	20	21	23	25	27	28	29	31	1	3	4	5	6	7	8	10	11	12	13	14	15	DAYS PRESENT
1	B. Harinadh	P	P	P	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	P	a	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	30
2	B. Nagamallesh	P	P	P	P	P	P	P	P	a	P	P	P	P	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P	29
3	K. Ramarao	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	a	P	P	P	P	28
4	P. Chinnayyapora	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	a	P	P	32
5	P. Bhargavchandu	P	P	a	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	30
6	P. Poornachandradu	P	P	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P	a	P	P	P	P	P	P	P	a	P	P	28
7	M. Mukesh Kumar	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	22
8	G. Jyothi	P	P	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	31
9	A. Pragathi	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	32
10	P. Jhansi	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	29
11	K. Paparao	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	29
12	M. Madhu	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31
13	K. Dhanalaxmi	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	30
14	T. Praveen Kumar	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	29
15	S. Sai Ananda	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	28
16	K. Sandeep	P	P	P	a	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P	27
17	B. Sankaranarayana	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	30