

Student Seminar for the Academic Year 2021 - 22



The Department of Mathematics conducted Student Seminars in the Academic vear 2021 22. The details are given below.

SI.No	Roll No	Name of the Student	Name of the Topic	Average Feedback from the Students
01	2103 3067 468 1006	J.Neha	Euler's Theorem	Excellent
02	2103 3067 468 1011	K.Sravani	Problem in Partial Derivatives	Excellent
03	2103 3067 441 1004	E.Sushmitha	Euler's Theorem	Excellent
04	2103 3067 468 1015	N.Navaneetha	Problem in Partial Derivatives	Excellent
05	2103 3067 468 1019	P.Rajeshwari	Problem in Partial Derivatives	Excellent
06	2103 3067 441 1010	K.Swathi	Problem on Euler's Theorem	Excellent
07	2103 3067 441 1002	Ch.Jayalatha	Problem on Euler's Theorem	Excellent
08	2103 3067 468 1003	C.Chandra Shekar	Problem in Partial Derivatives	Good
09	2103 3067 441 1005	J.Ganesh	Problem on Total Derivation	Good
10	2103 3067 468 1021	Savitha Kumari	Problem in	Good

			Partial Derivation	
11	2103 3067 468 1017	P.Bharagavi	Problem on Euler's Theorem	Good
12	2003 3067 441 005	P.Akhila	Cauchy's Theorem	Good
13	2003 3067 468 001	A.Sravani	Cauchy's Theorem	Good
14	2003 3067 441 004	K.Nandini	Rolle's Theorem	Excellent
15	2003 3067 441 002	D.Mounika	Algebra on Sequences	Good



Student Assignments

DEGREE SHADNAGAR. Academic Year 2021-22 RANGARE SEM-I (Internal-I Exam) 1. If u = f(y-&, 3-x, x-y) Prove That $\frac{\partial H}{\partial x} + \frac{\partial H}{\partial y} + \frac{\partial H}{\partial z} = 0$ 2. If "H" is a homogenicus function of (21, Y, 3) of degree (n' prove That 20H + Y 2H + 2 2H = nH 22 + Y 2y + 2 28 3. If x3+y3= saxy And dry, ? 4. If u = x+y, $x = Tan(2x-s^2)$, $y = cot(r^2s)$ then tindau 5. Find dy for given equation Tank + y Cotx = a SEM-T 1. f: [a,b] -> R is continuous on [a,b] closed insternal [a,b] Then 'f' is bounded of [a,b] 2. State and Prove Borel's Theorem 3 If is continuous on [a16] and fea) = f(b) then I takes atleast one value between tear, teb. 4. If f is continuous on Carb] and fear, feb) as opposite sign there exist ce(a,b) such That fec)=0 SEM-T 1. let V(F) is a vector space to is non-empty set of V. The necessary and sufficient conditions ter w to the Subspace of V. If a b EF and diBEW of adtop Ew.

SEM-IV

1. Prove That a subgroup H of a group a is a normal Subgroup of a iff XHZI=H for every XEA.

2. Define normal subgroup. Prove That every subgroup of an abelian group is normal

3. Prove That a subgroup H of a group G is a normal Subgroup iff every left coset of H in G is a night coset of H in G.

4. Prove that a subgroup II of a group a is a normal subgroup of a ceff the product of only two left or right cosets of II in a is again left or right cosets of II in a.

SEM-VI

1. State and prove first shifting property

2. State and prove multiplication by th

3. If f'(t) be continuous and $L_2^{+}f(t) = f(s)$ then $L_2^{+}f'(t) = sf(s) - f(o)$.

4. It 13 +(+) = f(s) Then L2 + +(+) = Sf(s) ds

provided the integral exists.

5. let Fit) be a periodic function with period two that is F(U+T) = F(U), F(U+2T) = F(U), etc Light) = J = Pt F(t) at

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Quiz Competition



The Department of Mathematics celebrated National Mathematics Day in the occasion of Sri Srinivas Ramanujam Birthday Anniversary. In this occasion a Quiz Competition is conducted. It is based on Basic Mathemathics principles.

- 1. 1st Round: Basic Trigonometric Principles.
- 2. 2nd Round: Algebra
- 3. 3rd Round: Geometry
- 4. 4th Round: Derivations
- 5. 5th Round: Integration

Winner Team of the Program: P. Archana Team.

Runner Team of the Program: K. Sravani Team.

Feedback from the Students: Excellent Program

1st Round: Basic Trigonometric Principles.

- 1. Sin 2A _____
- 2. Tan⁻¹ (1) _____
- 3. The solution of 2 sin x − 1 = 0 is _____
- 4. Tan (A + B) _____

2nd Round: Algebra

- 1. In the Field (Z₅, +₅, ×₅) the number of self-inverse elements are _____
- 2. Let (2Z, +, .) is Commutative Ring, if 6Z is an ideal of 2Z. The number of elements in 2Z/6Z are
- 3. The number of generators (Z₁₀, +) is _____
- 4. The definition order of element 'a'

3rd Round: Geometry

- 1. Parametric equation of a Circle is _____
- 2. Tangent condition in Sphere is _____
- 3. X axis equations is _____
- 4. Perpendicular distance from point to plane _____

4th Round: Derivations

- 1. The Derivation of e^x f(x) _____
- 2. The Derivation of Sin(log x) _____
- 3. The Derivation of x^2 . tan⁻¹ x
- 4. The Derivation of (1/x²) _____

5th Round: Integration

- 1. The Integration of Sin 2x
- 2. The Integration of $x^2 \cos x$
- 3. The Integration of log x
- 4. The Integration of $1/\sqrt{x}$







Details of Field Trips

The Department of Mathematics organized a field trip for the students to get knowledge for real life. We visited "SR SUN POWER SOLAR PRIVATELIMITED", which is located at BOINPALLE village near MIDJIL Mandal. The Project constructed for domestic purposes. The Project provides 5 MW current daily. The Project technical assistants explain current production in the Plant. The Solar Power Project produces 15,000 units power daily. The generated power is supplies to JENCO.



On the same day we also visited **PILLALAMARRI**, which located in **Mahabubnagar** town. The Pillalamarri is **800** year old **BANYAN** tree. Pillalamarri is spread over 4 acres area. It had original main trunk and many pop roots which resemble like many trucks like its children. This ancient tree is currently in a delicate stage of health. The Pillalamarri is suffering from pest infestation and lack of water.







Poster Presentation

The students of Department of Mathematics presented various posters in occasion of Sri Srinivas Ramanujam Birthday Anniversary. The details are below.







SI.No	Roll No	Name of Student	Poster Details
01	1903 3067 441 005	V.Shailaja	Taxicab Number
02	2103 3067 468 1011	K.Sravani	Taxicab Number 1729
03	2103 3067 441 1004	E.Sushmitha	Picture of Sri Srinivas Ramanujam

Details of Rangoli with Mathematical Shapes and Symbols Program

In the occasion of Sankranti Festival the department of Mathematics conducted Rangoli Context. The students should use Mathematical Shapes and Symbols only. The details are below

SI.No	Roll No
01	V.Shailaja and her Teammates
02	K.Swathi and her Teammates
03	P.Akhila and her Teammates
04	K.Sravani and her Teammates
05	Savitha Kumari and her Teammates













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Signature of the Faculty