

## Consolidated Report of Video Lessons

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S.NO	Topic	Duration	You Tube Link
1	Partial Differentiation – Part 1	36.53	<a href="https://www.youtube.com/watch?v=c4pWkrqHSIM">https://www.youtube.com/watch?v=c4pWkrqHSIM</a>
2	Partial Differentiation – Part 2	30.24	<a href="https://www.youtube.com/watch?v=R56kRdrBuKs">https://www.youtube.com/watch?v=R56kRdrBuKs</a>
3	Total Differentiation	30.47	<a href="https://youtu.be/ODbWS38gFNM">https://youtu.be/ODbWS38gFNM</a>
4	Taylor's Theorem	36.01	<a href="https://youtu.be/LFAtmGylT0Q">https://youtu.be/LFAtmGylT0Q</a>
5	Maxima and Minima	45.17	<a href="https://www.youtube.com/watch?v=1Rp4VWSyU-g">https://www.youtube.com/watch?v=1Rp4VWSyU-g</a>
6	Lagrange's Method of Undetermined Multipliers	43.08	<a href="https://www.youtube.com/watch?v=Aud2TPNGNgQ">https://www.youtube.com/watch?v=Aud2TPNGNgQ</a>
7	Curvature of a Curve	32.08	<a href="https://youtu.be/xYaRN8cde_A">https://youtu.be/xYaRN8cde_A</a>
8	Centre of a Curvature	38.04	<a href="https://youtu.be/r1Bh7XBGfVU">https://youtu.be/r1Bh7XBGfVU</a>
9	Evolutes and Involutives	35.18	<a href="https://youtu.be/Trd8Er0IFnI">https://youtu.be/Trd8Er0IFnI</a>
10	Envelopes	30.43	<a href="https://youtu.be/Trd8Er0IFnI">https://youtu.be/Trd8Er0IFnI</a>
11	Envelopes – Part 2	35.08	<a href="https://youtu.be/oYUIIjtGCTw">https://youtu.be/oYUIIjtGCTw</a>

12	Chord of Curvature	34.57	<a href="https://youtu.be/kFC3Qo6Pogk">https://youtu.be/kFC3Qo6Pogk</a>
13	Problems on Maxima And Minima Total Differentiation	32.42	<a href="https://www.youtube.com/watch?v=-p6IV9eqSyw">https://www.youtube.com/watch?v=-p6IV9eqSyw</a>
14	Lagranges method of undetermined multipliers	29.13	<a href="https://drive.google.com/file/d/1tm2EvOVePyt2X7MSPl_D4dNhKnyaehj/view?usp=sharing">https://drive.google.com/file/d/1tm2EvOVePyt2X7MSPl_D4dNhKnyaehj/view?usp=sharing</a>
15	Homogeneous differential equations	40.10	<a href="https://drive.google.com/file/d/16Fp23N2edGT3B3Cawxg0GPIB9czWyQh5/view?usp=sharing">https://drive.google.com/file/d/16Fp23N2edGT3B3Cawxg0GPIB9czWyQh5/view?usp=sharing</a>
16	Linear differential equations	39.02	<a href="https://drive.google.com/file/d/1zz9fFnFN5B-DwIAMyJ5RkSCJuPfyfW4K/view?usp=sharing">https://drive.google.com/file/d/1zz9fFnFN5B-DwIAMyJ5RkSCJuPfyfW4K/view?usp=sharing</a>
17	Exact differential Equations	38.41	<a href="https://drive.google.com/file/d/1wRY2zliDvhC6Omi-16B-ruFaUCoTyOsn/view?usp=sharing">https://drive.google.com/file/d/1wRY2zliDvhC6Omi-16B-ruFaUCoTyOsn/view?usp=sharing</a>

## Consolidated Report of Video Lessons

Ms.L.VishnuPriya

Assistant Professor of Mathematics

Department of Mathematics

Vivekananda Government Degree College, Vidyanagar, Hyderabad

S.N O	Topic Linear Algebra	Durati on In minute s	You tube Link	Google drive link
1	Vector Spaces,  Sub Spaces	33	<a href="https://youtu.be/WrxLW7HZ8hc">https://youtu.be/WrxLW7HZ8hc</a>	<a href="https://drive.google.com/file/d/1UB9DENcWrj2N5bXYgVIwkHWQrXQT9WsR/view?usp=sharing">https://drive.google.com/file/d/1UB9DENcWrj2N5bXYgVIwkHWQrXQT9WsR/view?usp=sharing</a>
2	Span, Null Space of a matrix	36	<a href="https://youtu.be/kNnPNt9BVK0">https://youtu.be/kNnPNt9BVK0</a>	<a href="https://drive.google.com/file/d/1GviuodSFtYu6c2U9GRRoWg7iIrdg03Kf/view?usp=sharing">https://drive.google.com/file/d/1GviuodSFtYu6c2U9GRRoWg7iIrdg03Kf/view?usp=sharing</a>
3	Linear transform ation, kernel, independe nt, dependent sets	35	<a href="https://www.youtube.com/watch?v=qKAIH0ZY-90">https://www.youtube.com/watch?v=qKAIH0ZY-90</a>	<a href="https://drive.google.com/file/d/1gxry6RAu8dHs7-5OpIuITlc9M-luo8O/view?usp=sharing">https://drive.google.com/file/d/1gxry6RAu8dHs7-5OpIuITlc9M-luo8O/view?usp=sharing</a>
4	Basis, Spa nning set theorem	38	<a href="https://youtu.be/7IQ52i6IlkY">https://youtu.be/7IQ52i6IlkY</a>	<a href="https://drive.google.com/file/d/1eQ5JetVbApK2XEIgo0_11nKLUyRPW4ic/view?usp=sharing">https://drive.google.com/file/d/1eQ5JetVbApK2XEIgo0_11nKLUyRPW4ic/view?usp=sharing</a>
5	Dimensio n of a vector Space	32	<a href="https://youtu.be/2K7PqU3jwV0">https://youtu.be/2K7PqU3jwV0</a>	<a href="https://drive.google.com/file/d/1C3buA-0gLtmi_3J5rsHBLR9fJwHHnaZ6/view?usp=sharing">https://drive.google.com/file/d/1C3buA-0gLtmi_3J5rsHBLR9fJwHHnaZ6/view?usp=sharing</a>
6	Rank theorem	37	<a href="https://youtu.be/5uPr05ZUHKU">https://youtu.be/5uPr05ZUHKU</a>	<a href="https://drive.google.com/file/d/1iXfqfEDn6DH3m-HuubbCBy5SR-Aq71ha/view?usp=sharing">https://drive.google.com/file/d/1iXfqfEDn6DH3m-HuubbCBy5SR-Aq71ha/view?usp=sharing</a>
7	Eigen values, eigen vectors	34	<a href="https://youtu.be/--1WuMDQTrw">https://youtu.be/--1WuMDQTrw</a>	<a href="https://drive.google.com/file/d/1Rag00UGIQkn3lh9Qc7Vv0NFI7D8V43/view?usp=sharing">https://drive.google.com/file/d/1Rag00UGIQkn3lh9Qc7Vv0NFI7D8V43/view?usp=sharing</a>

8	diagonalization	31	<a href="https://youtu.be/okvbNmwbNkM">https://youtu.be/okvbNmwbNkM</a>	<a href="https://drive.google.com/file/d/156dzPdCghahsWiID56wzyF2VRluQkQga/view?usp=sharing">https://drive.google.com/file/d/156dzPdCghahsWiID56wzyF2VRluQkQga/view?usp=sharing</a>
9	Problems on diagonalization	44	<a href="https://youtu.be/vUtHlg-rn70">https://youtu.be/vUtHlg-rn70</a>	<a href="https://drive.google.com/file/d/1ETVLxrhFcnI9VNs162NSMMG_l4g ehd2j/view?usp=sharing">https://drive.google.com/file/d/1ETVLxrhFcnI9VNs162NSMMG_l4g ehd2j/view?usp=sharing</a>
10	Complex eigen Values, Complex Eigen Vectors	40	<a href="https://youtu.be/hfQfISTrPs0">https://youtu.be/hfQfISTrPs0</a>	<a href="https://drive.google.com/file/d/1aN5IHGTT07QksZmwZ5LzJ4gTYRyNJrFb/view?usp=sharing">https://drive.google.com/file/d/1aN5IHGTT07QksZmwZ5LzJ4gTYRyNJrFb/view?usp=sharing</a>
11	Applications to Differential Equations	41	<a href="https://youtu.be/pEF9FOMaQyQh">https://youtu.be/pEF9FOMaQyQh</a>	<a href="https://drive.google.com/file/d/1Cd9UhsNNEsSI9mcB1JH-lsCCKUdJIXiE/view?usp=sharing">https://drive.google.com/file/d/1Cd9UhsNNEsSI9mcB1JH-lsCCKUdJIXiE/view?usp=sharing</a>
12	Applications to Differential Equations problems	40	<a href="https://youtu.be/mEIW2Nzkz2E">https://youtu.be/mEIW2Nzkz2E</a>	<a href="https://drive.google.com/file/d/1wV4G70HHAuX3eETrRemYipPg3Q16UnNK/view?usp=sharing">https://drive.google.com/file/d/1wV4G70HHAuX3eETrRemYipPg3Q16UnNK/view?usp=sharing</a>
13	Inner product of vector space	44	<a href="https://youtu.be/_fSm8wad1wA">https://youtu.be/_fSm8wad1wA</a>	<a href="https://drive.google.com/file/d/12W1Sxh8_hjnA0lmdWdbnNv_yuuWRGCu/view?usp=sharing">https://drive.google.com/file/d/12W1Sxh8_hjnA0lmdWdbnNv_yuuWRGCu/view?usp=sharing</a>
14	Orthogonal vectors	37	<a href="https://youtu.be/4WQFhPSPU-4">https://youtu.be/4WQFhPSPU-4</a>	<a href="https://drive.google.com/file/d/1JcY7dybLdxu23vpqPMIY5EVF6es9hVtl/view?usp=sharing">https://drive.google.com/file/d/1JcY7dybLdxu23vpqPMIY5EVF6es9hVtl/view?usp=sharing</a>
15	Orthogonal complement	44	<a href="https://youtu.be/k2FxmBTSH2M">https://youtu.be/k2FxmBTSH2M</a>	<a href="https://drive.google.com/file/d/1bySMLEiRMKVIVrSJ0ROhONisN9Tm8g7j/view?usp=sharing">https://drive.google.com/file/d/1bySMLEiRMKVIVrSJ0ROhONisN9Tm8g7j/view?usp=sharing</a>
16	Orthonormal set	30	<a href="https://youtu.be/4Ahj8UFhgds">https://youtu.be/4Ahj8UFhgds</a>	<a href="https://drive.google.com/file/d/1UG6SmMZweCytRr_AuFuX8GyTUVcXxcHf/view?usp=sharing">https://drive.google.com/file/d/1UG6SmMZweCytRr_AuFuX8GyTUVcXxcHf/view?usp=sharing</a>
17	Definition of a group	41	<a href="https://youtu.be/PYf945KQE0Y">https://youtu.be/PYf945KQE0Y</a>	<a href="https://drive.google.com/file/d/1JNuWDK5MV9IP-ZRZjuxOVdhgj07yr7yL/view?usp=sharing">https://drive.google.com/file/d/1JNuWDK5MV9IP-ZRZjuxOVdhgj07yr7yL/view?usp=sharing</a>

18	Properties of algebra	40	<a href="https://youtu.be/rz3tsDAs-y0">https://youtu.be/rz3tsDAs-y0</a>	<a href="https://drive.google.com/file/d/1ozXE-ZENrxzrtwXxNhenbjgshLBSm1D/view?usp=sharing">https://drive.google.com/file/d/1ozXE-ZENrxzrtwXxNhenbjgshLBSm1D/view?usp=sharing</a>
19	Problems on group	40	<a href="https://youtu.be/ta-8C-GaReg">https://youtu.be/ta-8C-GaReg</a>	<a href="https://drive.google.com/file/d/1YAPIOE8OJsU6CIUI3N0IA_E5tJN0H5C0/view?usp=sharing">https://drive.google.com/file/d/1YAPIOE8OJsU6CIUI3N0IA_E5tJN0H5C0/view?usp=sharing</a>
20	Order of a group	43	<a href="https://youtu.be/1qbZbFJ-cVs">https://youtu.be/1qbZbFJ-cVs</a>	<a href="https://drive.google.com/file/d/1GV0F_t1vtwqVNnsBMDdtybK-4xhHSEJV/view?usp=sharing">https://drive.google.com/file/d/1GV0F_t1vtwqVNnsBMDdtybK-4xhHSEJV/view?usp=sharing</a>
21	subgroup	39	<a href="https://youtu.be/UMIKAfZPI8E">https://youtu.be/UMIKAfZPI8E</a>	<a href="https://drive.google.com/file/d/13j75rGGby3zbgfhc549SgCK5hrJ5q9MZ/view?usp=sharing">https://drive.google.com/file/d/13j75rGGby3zbgfhc549SgCK5hrJ5q9MZ/view?usp=sharing</a>
22	Cyclic group	41	<a href="https://youtu.be/7nkAc-nEyto">https://youtu.be/7nkAc-nEyto</a>	<a href="https://drive.google.com/file/d/1-TjmCfxMd2NXqkebn425QOp7izAovbTf/view?usp=sharing">https://drive.google.com/file/d/1-TjmCfxMd2NXqkebn425QOp7izAovbTf/view?usp=sharing</a>