

#	Project Name	Roll No	Name	Email	DateTime
Survey on Graph Classes					
1	Perfect graphs	PH2020018 MT2020079 MT2020109	Sharvari Ravindran Neeraj Jetha Gourav Sachdev	Sharvari.R@iiitb.ac.in Neeraj.Jetha@iiitb.ac.in Gourav.Sachdev@iiitb.ac.in	2021-04-17 11:02
2	Outerplanar graphs	MT2020163 MT2020088 MT2020089	Shubham Ahlawat Nikhil Raj Neha Jha	shubham.ahlawat@iiitb.ac.in nikhil.raj@iiitb.ac.in neha.jha@iiitb.ac.in	2021-04-17 09:18
3	Chordal graphs	MT2020094 MT2020172 MT2020111	Bhwnesh Lohani Sajal Singh Saurabh Singh Rajpoot	bhwnesh.lohani@iiitb.ac.in sajal.singh@iiitb.org saurabh.rajpoot@iiitb.org	2021-04-17 08:08
4	Comparability graphs	MT2020039 MT2020124 MT2020171	Ashish Jain Mohit Lakhotia Swapnil Jain	ashish.jain039@iiitb.ac.in mohit.lakhotia@iiitb.org swapnil.jain@iiitb.org	2021-04-17 12:37
5	Co-comparability graphs	MT2020125 MT2020059	Riya Ghosh, Parijat Moulik	riya.ghosh@iiitb.org, parijat.moulik@iiitb.org	2021-04-17 20:45
6	Split graphs	MS2020004, IMT2017039	Avi Tomar, S Purvaj	avi.tomar@iiitb.ac.in, seethamraju.purvaj@iiitb.ac.in	
7	Threshold graphs	MT2020070, MT2020025, MT2020027	sanket agrawal, Bhaskar rai, Abhinav Tiwari	sanket.agrawal@iiitb.ac.in, bhaskar.rai@iiitb.ac.in, Abhinav.Tiwari@iiitb.ac.in	2021-04-17 10:28
8	Interval graphs	IMT2017021 IMT2017046	Osuri Himesh Krishna, Konduru Venkat Anish	himesh.krishna@iiitb.ac.in venkat.anish@iiitb.ac.in	2021-04-17 07:21
9	No-where dense graphs	MT2020160 MT2020161	Shahbaz Khan, Ripunjay Singh	shahbaz.khan@iiitb.ac.in ripunjay.singh@iiitb.ac.in	2021-04-18 22:29
10	Bounded Expansion graphs				
11	Block graphs	MT2020169 MT2020120	Bishwajeet Kumar Sharma, Milan Gupta	milan.gupta@iiitb.ac.in bishwajeet.sharma@iiitb.ac.in	2021-04-17 12:59
12	Permutation graphs	MT2020097 MT2020021 MT2020118	Pawan Kumar Gupta Abhishek Garg Nitesh Jain	Pawan.Gupta@iiitb.ac.in abhishek.garg@iiitb.org Nitesh.Jain@iiitb.ac.in	2021-04-17 09:08
13	Cographs	MT2020141	Divyansha Agrawal	Divyansha.Agrawal@iiitb.ac.in	2021-04-17 09:32
14	Claw free graphs	MT2020139, MT2020086 MT2020128	Ashutosh Shrivastava, Preeti Singhal Amit Jain	Ashutosh.Shrivastava@iiitb.ac.in, Preeti. Singhal@iiitb.org Amit.Jain@iiitb.org	2021-04-17 12:20
15	AT-free graphs				
16	Line graphs of bipartite graphs	MT2020107 MT2020108 MT2020149	Kamtam Vignaneswarkrishna Algote Devendhar Duduka Naresh Kumar	kamtam.vignaneswarkrishna@iiitb.ac.in algote.devendhar@iiitb.ac.in naresh.duduka@iiitb.ac.in	2021-04-17 11:30
17	Distance-hereditary graphs	MT2020012, MT2020508	Abhijeet Kumar, Rajnish Shonkhia	abhijeet.kumar@iiitb.org, rajnish.shonkhia@iiitb.org	2021-04-18 18:52
18	Weakly chordal graphs	IMT2016061 IMT2016066	Rishivarma Chinmayee sai	Rishi.varma@iiitb.ac.in Chinmayee.sai@iiitb.ac.in	2021-04-17 10:48
19	Strongly chordal graphs	MT2020150 MT2020167 MT2020055	Vaibhav Tandon Shubhi Maheswari Gourav Bang	vaibhav.tandon@iiitb.ac.in shubhi.maheswari@iiitb.ac.in gourav.bang@iiitb.ac.in	2021-04-17 08:26
Miscellaneous Problems and Problems on Graph Algorithms					
1	Algorithm by Havel and Hakimi that provides a condition to check if a given sequence of non-negative integers (in non-increasing order) is graphic or not.	MT2020130 MT2020004 MT2020066	Yagnik Bharadwa Manu Dandotiya Labdhi Kapasi	yagnik.bharadwa@iiitb.ac.in manu.dandotiya@iiitb.ac.in labdhi.kapasi@iiitb.ac.in	2021-04-17 02:02
2	Erdős and Gallai theorem provides a necessary and sufficient condition for a finite sequence of numbers to be a graphic sequence of a simple graph. Give a presentation on this theorem for simple graphs.				

3	Give a presentation on matrix tree theorem that gives a polynomial time algorithm to count spanning trees.	MT2020013 MT2020050 MT2020092	Apoorv Panse Deepti Chawda Meghna Bipin Pai	apoorv.panse@iiitb.ac.in deepti.chawda@iiitb.ac.in meghna.pai@iiitb.ac.in	2021-04-17 02:02
4	Cayley's formula counts the number of trees with n vertices. Write a detailed essay on how to use the matrix tree theorem to prove Cayley's formula and also to compute $\tau(K_{r,s})$.	MT2020042 MT2020151 MT2020099	Chakradhar Yamala Ankireddy Prathyusha Lakshmi Boddapati Bala Priyanka	chakradhar.yamala@iiitb.ac.in prathyusha.reddy@iiitb.ac.in balapriyanka.boddapati@iiitb.ac.in	2021-04-17 02:44
5	Hungarian algorithm, which takes as input a complete, weighted bipartite graph (weights on edges), and gives a maximum weight matching (also a perfect matching). Your presentation should also discuss the problem as the assignment problem and also provide details of the corresponding dual problem.	MT2020028 MT2020117	Divya Agarwal Mohit Kakkar	divya.agarwal@iiitb.ac.in mohit.kakkar@iiitb.ac.in	2021-04-17 13:13
6	The blossom algorithm developed by Edmonds in his paper titled "Paths, trees and flowers"	IMT2017027 IMT2017041 IMT2017043	Lalitha Seelam Vishnu Lahari Swasti Shreya Mishra	lalitha.seelam@iiitb.ac.in srivishnu.lahari@iiitb.ac.in swastishreya.mishra@iiitb.ac.in	2021-04-17 02:28
7	Give a presentation on the Gale-Shapley algorithm for the stable matching problem. You have to include details regarding an application of this problem in auctions, in Economics.	IMT2017028, IMT2017016, IMT2017045	Mohammad Khalid, Eric John, Srihari Vemuru	mohammadkhalid.udayagiri@iiitb.ac.in, eric.john@iiitb.ac.in, vermuru.srihari@iiitb.ac.in	2021-04-17 11:01
8	Write an essay on any two applications of Menger's theorem.	IMT2017019 IMT2017042	George T Abraham Sushranth Hebbar	georget.abraham@iiitb.ac.in sushranth.hebbar@iiitb.ac.in	2021-04-17 02:42
9	Write an essay on the various notions of centrality of a graph, a notion that is used to identify the most important vertices in a graph with respect to a certain parameter.	MT2020157 MT2020140 MT2020029	Shrey Dubey Parth Ajmera Skand Gupta	shrey.dubey@iiitb.org parth.ajmera@iiitb.org skand.gupta@iiitb.ac.in	2021-04-17 08:21
10	Write an essay on domination as an extremal problem, including some elementary results on dominating sets.	IMT2017018 IMT2017034 IMT2017047	Sriram Gandikota Ravi kiran Dhanush reddy	sai.sriram@iiitb.ac.in ravikiran.reddy@iiitb.ac.in saidhanush.reddy@iiitb.ac.in	2021-04-17 07:34
11	Give a short presentation on the Weak Perfect Graph Theorem along with a proof of the theorem	MT2020121 MT2020052	Pratik Pawar Chetan Gulecha	Pratik.Pawar@iiitb.ac.in Chetan.Gulecha@iiitb.ac.in	2021-04-17 06:40
12	Write an essay on algorithms for Planarity Testing. Explain at least one algorithm in detail.	MT2020005 MT2020166 IMT2016084	Pranay Kumar Tirumala Jonnalagadda Akhil Prasanth Kumar	pranay.kumar@iiitb.ac.in akhil.jonnalagadda@iiitb.ac.in prasanth.kumar@iiitb.ac.in	2021-04-17 02:15
13	Write an essay on solving the min-Coloring problem for Perfect Graphs. Also, mention some algorithms that are applicable on sub-classes of perfect graphs. For example, there exists a linear time algorithm for bipartite graphs.	IMT2017022 IMT2017030	Inampudi Cherish Chowdary Padumati Saikiran Reddy	Cherish.Chowdary@iiitb.ac.in Saikiran.Reddy@iiitb.ac.in	2021-04-17 07:28
14	Give a short presentation on Planar Separator Theorem.	IMT2018028 IMT2017023 IMT2018044	Hemanth Chitti, Mrinal, Lasya	Hemanth.Chitti@iiitb.org Venkata.lasya@iiitb.ac.in mrinal.m@iiitb.ac.in	2021-04-17 08:18
Implementation Projects					
1	Hungarian Algorithm for Matching	IMT2017522	Rathin Bhargava Ananya Appan	rathin.bhargava@iiitb.org	2021-04-17 01:58
2	Blossom Algorithm for Matching	IMT2017025 IMT2017010 IMT2017038	Kaustubh Nair Bishal Pandia Sartha Khoche	kaustubh.nair@iiitb.ac.in sarthak.khoche@iiitb.ac.in bishal.pandia@iiitb.ac.in	2021-04-17 03:25
3	Gale Shapley Algorithm	IMT2017008 IMT2017011 IMT2017521	Arjun Verma Brahma Kulkarni S Ram	arjun.verma@iiitb.org brahma.kulkarni@iiitb.org ram.s@iiitb.ac.in	2021-04-17 01:57