

# CS-1A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Introduction to Information and Communication Technology - Lab Muiz Qadir 1		<b>L U N C H</b>	English Composition and Comprehension - Lab Muhammad Iqbal 1	
Tuesday	Digital Logic Design 1 Mirza Waqar Baig	Linear Algebra 1 Amjad Hussain	English Composition and Comprehension - Lab 1 Sadia Ashfaq		English Composition and Comprehension - Lab 1 Sadia Ashfaq	Linear Algebra 1 Amjad Hussain
Wednesday	Digital Logic Design - Lab 1 Muhammad Arslan		Islamic Studies/Ethics 1 Rizwanullah		Islamic Studies/Ethics 1 Rizwanullah	Digital Logic Design 1 Mirza Waqar Baig
Thursday	Programming Fundamentals - Lab 1 Mughees Ismail		English Composition and Comprehension 1 Muhammad Ammar		English Composition and Comprehension 1 Junaid Shahid	
Friday	Programming Fundamentals 1 Rizwan ul Haq		Programming Fundamentals 1 Rizwan ul Haq		English Composition and Comprehension 1 Muhammad Ammar English Composition and Comprehension 1 Junaid Shahid	

# CS-1B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Digital Logic Design Muhammad Sajid Iqbal	English Composition and Comprehension - Lab Farah Iqbal		L U N C H	Digital Logic Design - Lab Mujahid Hussain	
Tuesday		Linear Algebra Amjad Hussain	Introduction to Information and Communication Technology - Lab Umar Naseer		Introduction to Information and Communication Technology - Lab Umar Naseer	English Composition and Comprehension Muhammad Ammar
Wednesday	Linear Algebra Amjad Hussain	Programming Fundamentals - Lab Pariwish Touseef			Programming Fundamentals Rizwan ul Haq	Islamic Studies/Ethics Rizwanullah
Thursday	English Composition and Comprehension - Lab Muhammad Iqbal	English Composition and Comprehension - Lab Muhammad Iqbal			Digital Logic Design Muhammad Sajid Iqbal	
Friday	Islamic Studies/Ethics Rizwanullah	English Composition and Comprehension Muhammad Ammar	English Composition and Comprehension Junaid Shahid		Programming Fundamentals Rizwan ul Haq	

# CS-1C

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	English Composition and Comprehension - Lab Rida Akram <sup>1</sup>	English Composition and Comprehension - Lab Rida Akram <sup>1</sup> English Composition and Comprehension Junaid Shahid <sup>1</sup>	English Composition and Comprehension - Lab Junaid Shahid <sup>1</sup>	L U N C H	English Composition and Comprehension - Lab Junaid Shahid <sup>1</sup>	
Tuesday	Digital Logic Design - Lab Mujahid Hussain <sup>1</sup>				Linear Algebra Amjad Hussain <sup>1</sup>	Programming Fundamentals Dr. Rabi a Maqsood <sup>1</sup>
Wednesday	Introduction to Information and Communication Technology - Lab Aqsa Younas <sup>1</sup>		English Composition and Comprehension Junaid Shahid <sup>1</sup> English Composition and Comprehension Muhammad Ammar <sup>1</sup>		Islamic Studies/Ethics Zia Ahmad <sup>1</sup>	
Thursday	Programming Fundamentals Dr. Rabi a Maqsood <sup>1</sup>		Digital Logic Design Dr. Adil Zulfiqar <sup>1</sup>		Programming Fundamentals - Lab Ayesha Liaqat <sup>1</sup>	
Friday	English Composition and Comprehension Muhammad Ammar <sup>1</sup>	Islamic Studies/Ethics Zia Ahmad <sup>1</sup>	Linear Algebra Amjad Hussain <sup>1</sup>			Digital Logic Design Dr. Adil Zulfiqar <sup>1</sup>

# CS-1D

Day/Period	I	II	III	1:15-1:45	IV	V
Monday			English Composition and Comprehension - Lab Rida Akram 1	L U N C H	English Composition and Comprehension - Lab Rida Akram 1	Calculus and Analytical Geometry Dr.Mushtaq Ahmad 1
Tuesday	Introduction to Information and Communication Technology - Lab Aqsa Younas 1		Programming Fundamentals Dr. Rabia Maqsood 1		Islamic Studies/Ethics Zia Ahmad 1	Programming Fundamentals Dr. Rabia Maqsood 1
Wednesday	English Composition and Comprehension - Lab Amna Farooq 1 English Composition and Comprehension Farah Iqbal 1	English Composition and Comprehension - Lab Amna Farooq 1	Applied Physics Waheed Ahmad 1			
Thursday	English Composition and Comprehension Sadia Ashfaq 1		English Composition and Comprehension Farah Iqbal 1		Programming Fundamentals - Lab Muhammad Azeem Iftikhar 1	
Friday		Islamic Studies/Ethics Zia Ahmad 1	English Composition and Comprehension Sadia Ashfaq 1		Calculus and Analytical Geometry Dr.Mushtaq Ahmad 1	Applied Physics Waheed Ahmad 1

# CS-1E

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Programming Fundamentals Dr. Danish Shehzad 1	Introduction to Information and Communication Technology - Lab Muiz Qadir 1		L U N C H	English Composition and Comprehension - Lab Amna Farooq 1	
Tuesday	Applied Physics Waheed Ahmad 1		English Composition and Comprehension Farah Iqbal 1		Programming Fundamentals - Lab Mughees Ismail 1	
Wednesday	Pakistan Studies Asif Naveed 1	Calculus and Analytical Geometry Dr. Mushtaq Ahmad 1				
Thursday	Calculus and Analytical Geometry Dr. Mushtaq Ahmad 1	English Composition and Comprehension - Lab Mah Rukh 1				English Composition and Comprehension Farah Iqbal 1 English Composition and Comprehension Muhammad Iqbal 1
Friday	English Composition and Comprehension Muhammad Iqbal 1				Programming Fundamentals Dr. Danish Shehzad 1	Pakistan Studies Asif Naveed 1

# CS-1F

Day/Period	I	II	III	1:15-1:45	IV	V
Monday			Programming Fundamentals Saqib Hayat <div>1</div>	<div>L U N C H</div>	English Composition and Comprehension - Lab Ehtasham-Ul-Haq <div>1</div>	English Composition and Comprehension - Lab Ehtasham-Ul-Haq <div>1</div>
Tuesday		Programming Fundamentals Saqib Hayat <div>1</div>			English Composition and Comprehension Muhammad Iqbal <div>1</div>	
Wednesday	Introduction to Information and Communication Technology - Lab Muhammad Haseeb Arshad <div>1</div>		Calculus and Analytical Geometry Dr. Mushtaq Ahmad <div>1</div>		Applied Physics Waheed Ahmad <div>1</div>	Pakistan Studies Asif Naveed <div>1</div>
Thursday	English Composition and Comprehension Sadia Ashfaq <div>1</div>		Programming Fundamentals - Lab Umar Naseer <div>1</div>		Programming Fundamentals - Lab Umar Naseer <div>1</div>	Calculus and Analytical Geometry Dr. Mushtaq Ahmad <div>1</div>
Friday	English Composition and Comprehension Muhammad Iqbal <div>1</div>	Applied Physics Waheed Ahmad <div>1</div>	Pakistan Studies Asif Naveed <div>1</div>			English Composition and Comprehension Sadia Ashfaq <div>1</div>

# CS-3A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Digital Logic Design Muhammad Irfan Ishaq	Computer Organization and Assembly Language - Lab Abuzar Ghafari	Computer Organization and Assembly Language - Lab Abuzar Ghafari Object Oriented Programming Shoaib Saleem	L U N C H	Object Oriented Programming - Lab Muhammad Hannan Farooq	Object Oriented Programming - Lab Muhammad Hannan Farooq Computer Organization and Assembly Language Abdul Qadeer Bilal
Tuesday	Differential Equations Arfan Shahzad Digital Logic Design Muhammad Irfan Ishaq		Data Structures - Lab Saba Aslam		Data Structures - Lab Saba Aslam	
Wednesday	Finance & Accounting Agha Mureed Ahmad Khan Object Oriented Programming Shoaib Saleem				Linear Algebra Ghilmana Sarmad	Discrete Structures Dr. Muhammad Ahmad
Thursday		Data Structures Muhammad Husnain	Applied Physics Muhammad Mohsin Hameed		Finance & Accounting Agha Mureed Ahmad Khan	Computer Organization and Assembly Language Abdul Qadeer Bilal
Friday		Discrete Structures Dr. Muhammad Ahmad Linear Algebra Ghilmana Sarmad	Applied Physics Muhammad Mohsin Hameed Data Structures Muhammad Husnain		Calculus and Analytical Geometry Bushra Niaz Differential Equations Arfan Shahzad	Calculus and Analytical Geometry Bushra Niaz

# CS-3B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Object Oriented Programming - Lab Muhammad Hannan Farooq		1	L U N C H	Computer Orgnaization and Assembly Language - Lab Ali Raza	
Tuesday			Fundamentals of Management Muhammad Tayyeb Riaz		Data Structures - Lab Muhammad Hannan Farooq	
Wednesday		Fundamentals of Management Muhammad Tayyeb Riaz	Discrete Structures Dr. Muhammad Ahmad		Object Oriented Programming Dr Usman Habib	
Thursday					Computer Organization and Assembly Language Abdul Qadeer Bilal	Differential Equations Arfan Shahzad
Friday		Computer Organization and Assembly Language Abdul Qadeer Bilal	Discrete Structures Dr. Muhammad Ahmad			Differential Equations Arfan Shahzad



# CS-3C

Day/Period	I	II	III	1:15-1:45	IV	V
Monday				L U N C H	Marketing Management Syed Zeeshan Haider <sup>1</sup>	
Tuesday			Data Structures Dr. Hashim Yasin <sup>1</sup>		Computer Orgnaization and Assembly Language - Lab Ali Raza <sup>1</sup>	
Wednesday			Data Structures Dr. Hashim Yasin <sup>1</sup>			
Thursday	Data Structures - Lab Mughees Ismail <sup>1</sup>				Marketing Management Syed Zeeshan Haider <sup>1</sup>	Differential Equations Arfan Shahzad <sup>1</sup>
Friday						Differential Equations Arfan Shahzad <sup>1</sup>

# CS-3D

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Data Structures Muhammad Usman Joyia <sup>1</sup>			L U N C H		
Tuesday	Marketing Management Syed Zeeshan Haider <sup>1</sup>				Discrete Structures Usman Ghous <sup>1</sup>	
Wednesday		Marketing Management Syed Zeeshan Haider <sup>1</sup>	Data Structures - Lab Saba Aslam <sup>1</sup>		Data Structures - Lab Saba Aslam <sup>1</sup>	
Thursday	Computer Orgnaization and Assembly Language - Lab Ali Raza <sup>1</sup>				Data Structures Muhammad Usman Joyia <sup>1</sup>	Differential Equations Muhammad Waqas Javed <sup>1</sup>
Friday			Differential Equations Muhammad Waqas Javed <sup>1</sup>		Discrete Structures Usman Ghous <sup>1</sup>	

# CS-3E

Day/Period	I	II	III	1:15-1:45	IV	V
Monday			Computer Organization and Assembly Language - Lab 1 Abuzar Ghafari	L U N C H	Computer Organization and Assembly Language - Lab 1 Abuzar Ghafari	
Tuesday		Finance & Accounting 1 Agha Mureed Ahmad Khan				Differential Equations 1 Hayat Ali
Wednesday		Finance & Accounting 1 Agha Mureed Ahmad Khan				
Thursday		Differential Equations 1 Hayat Ali				
Friday						

# CS-5A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Probability and Statistics Haris Khurram		Computer Networks - Lab Ayesha Liaqat	L U N C H	Computer Networks - Lab Ayesha Liaqat	
Tuesday	Web Programming Muhammad Shahrose Khan	Computer Networks Masood Habib	Theory of Automata Anmol Bilal			Computer Networks Masood Habib
Wednesday					Theory of Automata Anmol Bilal	Web Programming Muhammad Shahrose Khan
Thursday		Software Design and Analysis Dr. Muhammad Bilal				
Friday	Software Design and Analysis Dr. Muhammad Bilal					

# CS-5B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Marketing Management Hafiz MZeeshan Raza 1		L U N C H		Theory of Automata Anmol Bilal 1
Tuesday			Web Programming Muhammad Shahrose Khan 1			
Wednesday	Software Design and Analysis Dr. Muhammad Bilal 1		Computer Networks - Lab Ayesha Liaqat 1		Computer Networks - Lab Ayesha Liaqat 1	
Thursday		Software Design and Analysis Dr. Muhammad Bilal 1	Web Programming Muhammad Shahrose Khan 1			
Friday	Marketing Management Hafiz MZeeshan Raza 1	Computer Networks Dr. Bilal Khan 1			Theory of Automata Anmol Bilal 1	

# CS-5C

Day/Period	I	II	III	1:15-1:45	IV	V
Monday				L U N C H		
Tuesday	Computer Networks - Lab Sumaira Mustafa		Theory of Automata Numan Shafi			
Wednesday	Advanced Programming Awaiz Azam		Theory of Automata Numan Shafi			
Thursday	Probability and Statistics Haris Khurram	Computer Networks Dr. Bilal Khan				
Friday		Probability and Statistics Haris Khurram	Software Design and Analysis Dr. Uzair Iqbal		Software Design and Analysis Dr. Uzair Iqbal	Computer Networks Dr. Bilal Khan

# CS-5D

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Design and Analysis of Algorithms Shoaib Saleem		L U N C H	Psychology Aisha Bano	
Tuesday	Operating System Usman Ghous				Database Systems - Lab Saqib Hayat Discrete Structures Usman Ghous	Database Systems - Lab Saqib Hayat
Wednesday			Theory of Automata Numan Shafi			Discrete Structures Usman Ghous Operating System Usman Ghous
Thursday	Database Systems Saqib Hayat		Theory of Automata Numan Shafi		Operating Systems - Lab Muhammad Haseeb Arshad	
Friday			Psychology Aisha Bano			

# CS-5E

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Design and Analysis of Algorithms Shoaib Saleem1		L U N C H		Theory of Automata Numan Shafi1
Tuesday	Database Systems - Lab Muhammad Shahrose Khan1				Database Systems Aliza Saeed1	
Wednesday					Psychology Aisha Bano1	
Thursday	Theory of Automata Numan Shafi1	Operating Systems - Lab Muhammad Yousaf1			Design and Analysis of Algorithms Shoaib Saleem1	
Friday		Database Systems Aliza Saeed1				Psychology Aisha Bano1



# CS-7A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Professional Practices in IT Rizwan ul Haq <sup>1</sup>	Data Science Adeel Ashraf Cheema <sup>1</sup>		L U N C H		
Tuesday						
Wednesday	Artificial Intelligence Dr. Shahnawaz Qureshi <sup>1</sup>		Data Mining Dr. Rabia Maqsood <sup>1</sup>		Information Security Dr. Danish Shehzad <sup>1</sup>	Software Engineering Awais Azam <sup>1</sup>
Thursday	Information Security Dr. Danish Shehzad <sup>1</sup>	Professional Practices in IT Rizwan ul Haq <sup>1</sup>	Artificial Intelligence - Lab Saba Aslam <sup>1</sup>		Artificial Intelligence - Lab Saba Aslam <sup>1</sup>	Data Mining Dr. Rabia Maqsood <sup>1</sup>
Friday		Artificial Intelligence Dr. Shahnawaz Qureshi <sup>1</sup>			Software Engineering Awais Azam <sup>1</sup>	Data Science Adeel Ashraf Cheema <sup>1</sup>

# CS-7B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Data Mining Nasreen Akhtar 1		Information Security Dr. Danish Shehzad 1	L U N C H		Professional Practices in IT Masood Habib 1
Tuesday	Data Mining Nasreen Akhtar 1					
Wednesday						
Thursday		Information Security Dr. Danish Shehzad 1	Professional Practices in IT Masood Habib 1		Data Science Adeel Ashraf Cheema 1	Software Engineering Awais Azam 1
Friday			Data Science Adeel Ashraf Cheema 1			Software Engineering Awais Azam 1

# CS-7C

Day/Period	I	II	III	1:15-1:45	IV	V	
Monday	Applied Machine Learning Dr. Hashim Yasin 1	Professional Practices in IT Masood Habib 1		L U N C H			
Tuesday		Information Security Dr. Irfan ul Haq 1					
Wednesday							
Thursday	Software for Mobile Devices - Lab Tahir Farooq 1					Professional Practices in IT Masood Habib 1	
Friday	Applied Machine Learning Dr. Hashim Yasin 1						

CS-7D

Day/Period	I	II	III	1:15-1:45	IV	V
Monday				L U N C H		
Tuesday			Software for Mobile Devices - Lab Tahir Farooq1		Software for Mobile Devices - Lab Tahir Farooq1	
Wednesday	Professional Practices in IT Tehreem Aslam1				Applied Machine Learning Dr. Hashim Yasin1	
Thursday	Information Security Dr. Muhammad Umar Aftab1				Information Security Dr. Muhammad Umar Aftab1	
Friday		Professional Practices in IT Tehreem Aslam1				Applied Machine Learning Dr. Hashim Yasin1

# CS-7E

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Information Security Dr. Muhammad Umar Aftab	Software Testing Dr. Uzair Iqbal	L U N C H		Professional Practices in IT Tehreem Aslam
Tuesday						
Wednesday	Fundamentals of Software Project Management Dr. Muhammad Bilal					
Thursday		Fundamentals of Software Project Management Dr. Muhammad Bilal			Information Security Dr. Muhammad Umar Aftab	
Friday	Software Testing Dr. Uzair Iqbal		Professional Practices in IT Tehreem Aslam			

CS-7F

Day/Period	I	II	III	1:15-1:45	IV	V
Monday				L U N C H		
Tuesday						
Wednesday	Remote Sensing and GIS Dr M. Shahzad Sarfraz <sup>1</sup>		Remote Sensing and GIS Dr M. Shahzad Sarfraz <sup>1</sup>		Software Testing Dr. Uzair Iqbal <sup>1</sup>	
Thursday						
Friday	Software Testing Dr. Uzair Iqbal <sup>1</sup>					

CS-9A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday				L U N C H		
Tuesday	Software for Mobile Devices - Lab No-Teacher		1			
Wednesday			Computer Architecture Muhammad Usman Joyia			
Thursday	Computer Architecture Muhammad Usman Joyia		1			
Friday						

# SE-1A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	English Composition and Comprehension - Lab Muhammad Ammar		English Composition and Comprehension - Lab Ehtasham-Ul-Haq English Composition and Comprehension Sadia Ashfaq	L U N C H	English Composition and Comprehension - Lab Ehtasham-Ul-Haq	English Composition and Comprehension Farah Iqbal
Tuesday	Pakistan Studies Asma Yaqoob		Applied Physics Waheed Ahmad		English Composition and Comprehension Sadia Ashfaq	English Composition and Comprehension Farah Iqbal
Wednesday	Programming Fundamentals - Lab Sumaira Mustafa		Applied Physics Waheed Ahmad			Programming Fundamentals Sumaira Mustafa
Thursday	Introduction to Information and Communication Technology - Lab Umar Naseer		Pakistan Studies Asma Yaqoob		Programming Fundamentals Sumaira Mustafa	
Friday	Calculus and Analytical Geometry Bushra Niaz				Calculus and Analytical Geometry Bushra Niaz	



# SE-1B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Pakistan Studies Zainab Javeed	Introduction to Information and Communication Technology - Lab Muhammad Haseeb Arshad		L U N C H	Programming Fundamentals Aliza Saeed	
Tuesday			Applied Physics Dr. Arslan Ahmed Amin		Programming Fundamentals - Lab Aliza Saeed	
Wednesday	Pakistan Studies Zainab Javeed	English Composition and Comprehension - Lab Sadia Ashfaq	English Composition and Comprehension - Lab Sadia Ashfaq English Composition and Comprehension Rida Akram		Calculus and Analytical Geometry Bushra Niaz	English Composition and Comprehension Rida Akram
Thursday	English Composition and Comprehension - Lab Farah Iqbal English Composition and Comprehension Muhammad Iqbal	English Composition and Comprehension - Lab Farah Iqbal			Calculus and Analytical Geometry Bushra Niaz	Programming Fundamentals Aliza Saeed
Friday			English Composition and Comprehension Muhammad Iqbal			Applied Physics Dr. Arslan Ahmed Amin

# SE-3A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Software Requirement Engineering Pariwish Touseef 1		Linear Algebra Ghilmana Sarmad 1	L U N C H	Human Computer Interaction Dr. Shahnawaz Qureshi 1	
Tuesday	Data Structures Muhammad Usman Joyia 1				Data Structures - Lab Aqsa Younas 1	
Wednesday	Object Oriented Programming Dr Usman Habib 1	Data Structures Muhammad Usman Joyia 1	Object Oriented Programming - Lab Muhammad Yousaf 1		Object Oriented Programming - Lab Muhammad Yousaf 1	
Thursday	Human Computer Interaction Dr. Shahnawaz Qureshi 1	Linear Algebra Ghilmana Sarmad 1	Marketing Management Hafiz MZeeshan Raza 1		Marketing Management Hafiz MZeeshan Raza 1	
Friday			Software Requirement Engineering Pariwish Touseef 1		Object Oriented Programming Dr Usman Habib 1	

# SE-3B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday		Data Structures - Lab Asif Ameer	1	L U N C H	Software Requirement Engineering Pariwish Touseef	1
Tuesday						
Wednesday	Linear Algebra Ghilmana Sarmad		Data Structures Asif Ameer		Human Computer Interaction Dr. Shahnawaz Qureshi	1
Thursday	Linear Algebra Ghilmana Sarmad	Finance & Accounting Muhammad Nasif	Data Structures Asif Ameer			
Friday		Human Computer Interaction Dr. Shahnawaz Qureshi	Finance & Accounting Muhammad Nasif			

# SE-5A

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Database Systems - Lab Nasreen Akhtar		1	L U N C H	Software Construction and Development - Lab Muhammad Azeem Iftikhar	
Tuesday			Software Quality Engineering Tehreem Aslam		Probability and Statistics Haris Khurram	1
Wednesday	Probability and Statistics Haris Khurram	Operating Systems - Lab Muhammad Yousaf	Operating Systems - Lab Muhammad Yousaf Operation Research Dr. Muhammad Imran Babar			Database Systems Nasreen Akhtar
Thursday	Software Construction and Development Dr. Affan Rauf		Operating Systems Muhammad Husnain		Software Quality Engineering Tehreem Aslam	
Friday	Operating Systems Muhammad Husnain	Operation Research Dr. Muhammad Imran Babar Technical and Business Writing Muhammad Nouman Iftikhar	Technical and Business Writing Muhammad Nouman Iftikhar		Software Construction and Development Dr. Affan Rauf	Database Systems Nasreen Akhtar

# SE-5B

Day/Period	I	II	III	1:15-1:45	IV	V
Monday	Software Construction and Development Dr. Affan Rauf 1			L U N C H		Technical and Business Writing Muhammad Nouman Iftikhar 1
Tuesday		Technical and Business Writing Muhammad Nouman Iftikhar 1				
Wednesday	Operation Research Dr. Muhammad Imran Babar 1		Probability and Statistics Haris Khurram 1			Software Quality Engineering Abdul Qadeer Bilal 1
Thursday		Software Quality Engineering Abdul Qadeer Bilal 1			Software Construction and Development - Lab Muhammad Azeem Iftikhar 1	
Friday		Software Construction and Development Dr. Affan Rauf 1			Probability and Statistics Haris Khurram 1	Operation Research Dr. Muhammad Imran Babar 1