

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"
Attendance Sheet

Date : 01/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|----------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri sahoo | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu | |
| 15 | Mrimmoy Chowdhury | | Mrimmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | supriyo kumar de | |
| 22 | Sourabh Samanta | | sourabh samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan sahoo | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua | |

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| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|---------------------|------|--------------------|---------|
| 50 | Souvik Jana | | Souvik Jana | |
| 51 | Sayan Dey | | Sayan Dey | |
| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharys | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Day | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet

Date : 12/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|-----------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri sahoo. | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra. | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu | |
| 15 | Mrimoy Chowdhury | | Mrimoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | Supriyo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra. | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua. | |
| 49 | Subhrangshu Tunga | | Subhrangshu Tunga | |
| 50 | Souvik Jana | | | |
| 51 | Souvik Das | | | |

| | | | | |
|---|--------------------|-----------------|--|--|
| 1 | Somnath Gayen | Somnath Gayen | | |
| 2 | Sintu Gayen | Sintu Gayen | | |
| 3 | Shraban patra | Shraban Patra | | |
| 4 | Triman Guchhait | Triman Guchhait | | |
| | Joydeep Saha | | | |
| | Soumyadip Banerjee | | | |

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| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Day | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
|----|--------------------|-----------------|--|--|
| | Somnath Gayen | Somnath Gayen | | |
| J | Sintu Gayen | Sintu Gayen | | |
| 61 | Shraban patra | Shraban Patra | | |
| 62 | Triman Guchhait | Triman Guchhait | | |
| 63 | Joydeep Saha | | | |
| 64 | Soumyadip Banerjee | | | |

**Kharagpur College
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Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet

Date : 13/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|------------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri sahoo. | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra. | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu. | |
| 15 | Mrinmoy Chowdhury . | | Mrinmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam . | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | supriyo kumar de | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip kumar Sahoo | |
| 26 | Saptarshi Pahari . | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra . | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo . | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalvan Khanna | | | |

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Date : 14/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|-----------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri Sahoo. | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu. | |
| 15 | Mrinmoy Chowdhury | | Mrinmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | Supriyo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das. | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra. | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo. | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Kh... | | | |

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| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|---------------------|------|--------------------|---------|
| 50 | Souvik Jana | | Souvik Jana | |
| 51 | Sayan Dey | | Sayan Dey | |
| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Day | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

Kharagpur College
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Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet

Date : 16/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|----------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri sahoo | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu | |
| 15 | Mrinmoy Chowdhury | | Mrinmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | Supriyo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua | |
| 49 | Subhrangshu Tunga | | Subhrangshu Tunga | |
| 50 | Souvik Jana | | | |
| 51 | Sayan Dev | | | |

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| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|---------------------|------|--------------------|---------|
| 50 | Souvik Jana | | SOUVIK JANA | |
| 51 | Sayan Dey | | SAYAN DEY | |
| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Day | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
|----|--------------------|-----------------|--|--|
| | Somnath Gayen | Somnath Gayen | | |
| | Sintu Gayen | Sintu Gayen | | |
| 52 | Shraban patra | Shraban Patra | | |
| 63 | Triman Guchhait | Triman Guchhait | | |
| 64 | Joydeep Saha | | | |
| | Soumyadip Banerjee | | | |

| | | | | |
|----|--------------------|-----------------|--|--|
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| | Sintu Gayen | Sintu Gayen | | |
| | Shraban patra | Shraban Patra | | |
| 52 | Triman Guchhait | Triman Guchhait | | |
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| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
|----|--------------------|-----------------|--|--|
| | Somnath Gayen | Somnath Gayen | | |
| | Sintu Gayen | Sintu Gayen | | |
| 61 | Shraban patra | Shraban Patra | | |
| 62 | Triman Guchhait | Triman Guchhait | | |
| 63 | Joydeep Saha | | | |
| 64 | Soumyadip Banerjee | | | |

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Date : 21/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|-----------------------|---------|
| 1 | Tithi Sen | | Tithi sen. | |
| 2 | Shesadri sahoo | | Shesadri sahoo. | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra. | |
| 6 | Jayanta Deb | | Jayanta Deb | |
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| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu. | |
| 15 | Mrinmoy Chowdhury | | Mrinmoy Chowdhury | |
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| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
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| 21 | Supriyo Kumar De | | Supriyo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das. | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra. | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahu | | Arpan Sahoo. | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | SAYAN Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua. | |
| 49 | Subhrangshu Tunga | | Subhrangshu Tunga | |
| 50 | Souvik Jana | | | |
| 51 | Sayan Dey | | | |

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| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
|---|--------------------|-----------------|--|--|
| | Somnath Gayen | Somnath Gayen | | |
| | Sintu Gayen | Sintu Gayen | | |
| | Shraban patra | Shraban Patra | | |
| 2 | Triman Guchhait | Triman Guchhait | | |
| 3 | Joydeep Saha | | | |
| 4 | Soumyadip Banerjee | | | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet
Date : 23/06/2023

| Sl. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|----------------------|---------|
| 1 | Tirthi Sen | | Jithi sen | |
| 2 | Shesadri Sahoo | | Shesadri Sahoo | |
| 3 | Bratish Samtra | | Bratish Samtra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Samtra | | Rajesh Samtra | |
| 6 | Rajanta Deb | | Rajanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Somudip Maity | | Somudip Maity | |
| 9 | Somudip Deb | | Somudip Deb | |
| 10 | Somudip Mandal | | Somudip Mandal | |
| 11 | Sudhamani Saha | | Sudhamani Saha | |
| 12 | Indira Kanta Sahoo | | Indira Kanta Sahoo | |
| 13 | Sanjit Mandal | | Sanjit Mandal | |
| 14 | Prakash Murtu | | Prakash Murtu | |
| 15 | Mrunmay Choudhury | | Mrunmay Choudhury | |
| 16 | Anant Beza | | Anant Beza | |
| 17 | Saibest Pal | | Saibest Pal | |
| 18 | Mrunmay Mandal | | Mrunmay Mandal | |
| 19 | SK Satish Siani | | SK Satish Siani | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Diprityo Kumar De | | Diprityo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | Animesh Maity | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Sagarani Patra | | Sagarani Patra | |
| 27 | Krunal Maity | | Krunal Maity | |
| 28 | Amit Das | | Amit Das | |
| 29 | Bijan Mandal | | Bijan Mandal | |
| 30 | Dhruvika Jitka | | Dhruvika Jitka | |
| 31 | Katna Maity | | Katna Maity | |
| 32 | Soumen Bagal | | Soumen Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Amit Samtra | | Amit Samtra | |
| 35 | Amitabh Bunder Patra | | Amitabh Bunder Patra | |
| 36 | Anup Kumar Murtu | | Anup Kumar Murtu | |
| 37 | Arijan Saha | | Arijan Saha | |
| 38 | Deban Das | | Deban Das | |
| 39 | Priyanka Patra | | Priyanka Patra | |
| 40 | Bhuvan Saha | | Bhuvan Saha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Soumen Das | | Soumen Das | |
| 43 | Sayan Chakrabarty | | Sayan Chakrabarty | |
| 44 | Harshita Saha | | Harshita Saha | |
| 45 | Dibyendu Das | | Dibyendu Das | |
| 46 | Mihir Das | | Mihir Das | |
| 47 | Anshuman Das | | Anshuman Das | |
| 48 | Kabir Das | | Kabir Das | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"
Attendance Sheet

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|---------------------|------|--------------------|---------|
| 50 | Souvik Jana | | Souvik Jana | |
| 51 | Sayan Dey | | Sayan Dey | |
| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
|----|--------------------|-----------------|--|--|
| 59 | Somnath Gayen | | | |
| 60 | Sintu Gayen | Somnath Gayen | | |
| 61 | Shraban patra | Sintu Gayen | | |
| 62 | Triman Guchhait | Shraban Patra | | |
| 63 | Joydeep Saha | Triman Guchhait | | |
| 64 | Soumyadip Banerjee | | | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet

Date : 28/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|-----------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadri sahoo. | |
| 3 | Bratish Santra | | Bratish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Baskey | |
| 5 | Rajesh Santra | | Rajesh Santra. | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip Koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhagu Kuila | | Subhagu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu. | |
| 15 | Mrinmoy Chowdhury | | Mrinmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | Supriyo Kumar De | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip Kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta. | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal. | |
| 33 | Rajat Das | | Rajat Das. | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra. | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua | |
| 49 | Subhrangshu Tunga | | Subhrangshu Tunga | |
| 50 | Souvik Jana | | | |
| 51 | Savan Dev | | | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"
Attendance Sheet

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|---------------------|------|--------------------|---------|
| 50 | Souvik Jana | | SOUVIK JANA | |
| 51 | Sayan Dey | | Sayan Dey | |
| 52 | Aranya Pariary | | Aranya Pariary | |
| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet
Date: 30/06/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|----------------------|---------|
| 1 | Tithi Sen | | | |
| 2 | Shesadri sahoo | | Tithi Sen | |
| 3 | Bratish Santra | | Shesadol sahoo. | |
| 4 | Ananda Mohan Baskey | | Bratish Santra | |
| 5 | Rajesh Santra | | Anandamoha Baskey | |
| 6 | Jayanta Deb | | Rajesh Santra. | |
| 7 | Somudip Koley | | Jayanta Deb | |
| 8 | Soumyadip Maity | | Somudip koley | |
| 9 | Jyotirmoy dey | | Soumyadip Maity | |
| 10 | Subhadip Mahakul | | | |
| 11 | Subhayu Kuila | | Subhadip Mahakul | |
| 12 | Indra Kamal Sahoo | | Subhayu Kuila | |
| 13 | Sanjib Mandal | | Indra Kamal Sahoo | |
| 14 | Prakash Murmu | | Sanjib Mandal. | |
| 15 | Mrimoy Chowdhury | | Prakash Murmu. | |
| 16 | Ankan Bera | | Mrimoy Chowdhury | |
| 17 | Saibesh Pal | | Ankan Bera | |
| 18 | Monomoy Mondal | | Saibesh Pal | |
| 19 | SK Sofiul Islam | | Monomoy Mondal | |
| 20 | Debjani Das | | SK Sofiul Islam. | |
| 21 | Supriyo Kumar De | | Debjani Das | |
| 22 | Sourabh Samanta | | supriyo kumar de | |
| 23 | Aniket Roy | | Sourabh Samanta | |
| 24 | Animesh Maity | | Aniket Roy | |
| 25 | Pradip Kumar Sahoo | | | |
| 26 | Saptarshi Pahari | | Pradip Kumar Sahoo | |
| 27 | Kiranmay Maity | | Saptarshi Pahari | |
| 28 | Arijit Das | | Kiranmay Maity | |
| 29 | Biplab Mandal | | Arijit Das | |
| 30 | Dipankar Dutta | | Biplab Mandal | |
| 31 | Rahul Manna | | Dipankar Dutta. | |
| 32 | Sourav Bagal | | | |
| 33 | Rajat Das | | Sourav Bagal. | |
| 34 | Arijit Santra | | Rajat Das | |
| 35 | Anindya Sundar Patra | | Arijit Santra | |
| 36 | Anup Kumar Murmu | | Anindya Sundar Patra | |
| 37 | Arpan sahoo | | | |
| 38 | Nabin Das | | Anup sahoo | |
| 39 | Parijat Patra | | Nabin Das | |
| 40 | Bikram Laha | | Parijat Patra | |
| 41 | Pradip Das | | Bikram Laha | |
| 42 | Samiran Jana | | Pradip Das | |
| 43 | Sayan Chakraborty | | Samiran Jana | |
| 44 | Tanmoy sahu | | Sayan Chakraborty | |
| 45 | Dibyendu Roy | | Tanmoy sahu | |
| 46 | Mitali Dhal | | Dibyendu Roy | |
| 47 | Anirban Jana | | Mitali Dhal | |
| 48 | Kalyan Khatua | | Anirban Jana | |
| 49 | Subhrangshu Tunga | | Kalyan Khatua. | |
| 50 | Souvik Jana | | Subhrangshu Tunga | |
| 51 | Savan Dev | | | |

| | | | | |
|----|--------------------|-----------------|--|--|
| | Somnath Gayen | Somnath Gayen | | |
| | Sintu Gayen | Sintu Gayen | | |
| 61 | Shraban patra | Shraban Patra | | |
| 62 | Triman Guchhait | Triman Guchhait | | |
| 63 | Joydeep Saha | | | |
| 64 | Soumyadip Banerjee | | | |

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"
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| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

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| | Sintu Gayen | Sintu Gayen | | |
| 61 | Shraban patra | Shraban Patra | | |
| 62 | Triman Guchhait | Triman Guchhait | | |
| 63 | Joydeep Saha | | | |
| 64 | Soumyadip Banerjee | | | |

~~Date: 01/06/2023~~

Kharagpur College
Department of Physics
Certificate Course on "Computer Programming using MATLAB & Python Language"

Attendance Sheet
Date: 04/07/2023

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
|---------|----------------------|------|------------------------|---------|
| 1 | Tithi Sen | | Tithi Sen | |
| 2 | Shesadri sahoo | | Shesadol sahoo. | |
| 3 | Bratish Santra | | Bstatish Santra | |
| 4 | Ananda Mohan Baskey | | Ananda Mohan Basket | |
| 5 | Rajesh Santra | | | |
| 6 | Jayanta Deb | | Jayanta Deb | |
| 7 | Somudip Koley | | Somudip koley | |
| 8 | Soumyadip Maity | | Soumyadip Maity | |
| 9 | Jyotirmoy dey | | | |
| 10 | Subhadip Mahakul | | Subhadip Mahakul | |
| 11 | Subhayu Kuila | | Subhayu Kuila | |
| 12 | Indra Kamal Sahoo | | Indra Kamal Sahoo | |
| 13 | Sanjib Mandal | | Sanjib Mandal | |
| 14 | Prakash Murmu | | Prakash Murmu | |
| 15 | Mrinmoy Chowdhury | | Mrinmoy Chowdhury | |
| 16 | Ankan Bera | | Ankan Bera | |
| 17 | Saibesh Pal | | Saibesh Pal | |
| 18 | Monomoy Mondal | | Monomoy Mondal | |
| 19 | SK Sofiul Islam | | SK Sofiul Islam | |
| 20 | Debjani Das | | Debjani Das | |
| 21 | Supriyo Kumar De | | Supriyo kumar de | |
| 22 | Sourabh Samanta | | Sourabh Samanta | |
| 23 | Aniket Roy | | Aniket Roy | |
| 24 | Animesh Maity | | | |
| 25 | Pradip Kumar Sahoo | | Pradip kumar Sahoo | |
| 26 | Saptarshi Pahari | | Saptarshi Pahari | |
| 27 | Kiranmay Maity | | Kiranmay Maity | |
| 28 | Arijit Das | | Arijit Das | |
| 29 | Biplab Mandal | | Biplab Mandal | |
| 30 | Dipankar Dutta | | Dipankar Dutta | |
| 31 | Rahul Manna | | | |
| 32 | Sourav Bagal | | Sourav Bagal | |
| 33 | Rajat Das | | Rajat Das | |
| 34 | Arijit Santra | | Arijit Santra | |
| 35 | Anindya Sundar Patra | | Anindya Sundar Patra . | |
| 36 | Anup Kumar Murmu | | | |
| 37 | Arpan sahoo | | Arpan Sahoo | |
| 38 | Nabin Das | | Nabin Das | |
| 39 | Parijat Patra | | Parijat Patra | |
| 40 | Bikram Laha | | Bikram Laha | |
| 41 | Pradip Das | | Pradip Das | |
| 42 | Samiran Jana | | Samiran Jana | |
| 43 | Sayan Chakraborty | | Sayan Chakraborty | |
| 44 | Tanmoy sahu | | Tanmoy Sahu | |
| 45 | Dibyendu Roy | | Dibyendu Roy | |
| 46 | Mitali Dhal | | Mitali Dhal | |
| 47 | Anirban Jana | | Anirban Jana | |
| 48 | Kalyan Khatua | | Kalyan Khatua | |
| 49 | Subhrangshu Tunga | | Subhrangshu Tunga | |
| 50 | Souvik Jana | | | |
| 51 | Sayan Dey | | | |

Kharagpur College
 Department of Physics
 Certificate Course on "Computer Programming using MATLAB & Python Language"
 Attendance Sheet

| SL. No. | Name of the Student | Date | Full Signature | Remarks |
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| 53 | Rabindranath Manna | | Rabindranath Manna | |
| 54 | Souvik acharya | | Souvik Acharya | |
| 55 | Souvik Shee | | Souvik Shee | |
| 56 | Rupam Day | | Rupam Dey | |
| 57 | Sandip Dutta | | Sandip Dutta | |
| 58 | Subhajit Khanra | | Subhajit Khanra | |

| | | | | |
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| | Sintu Gayen | Sintu Gayen | | |
| 61 | Shraban patra | Shraban patra | | |
| 62 | Triman Guchhait | Triman Guchhait | | |
| 63 | Joydeep Saha | | | |
| 64 | Soumyadip Banerjee | | | |



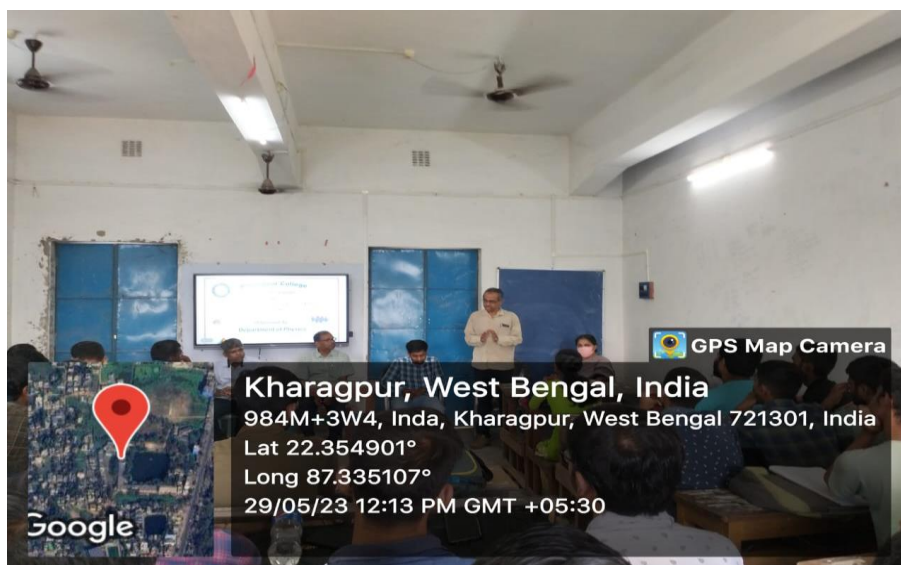
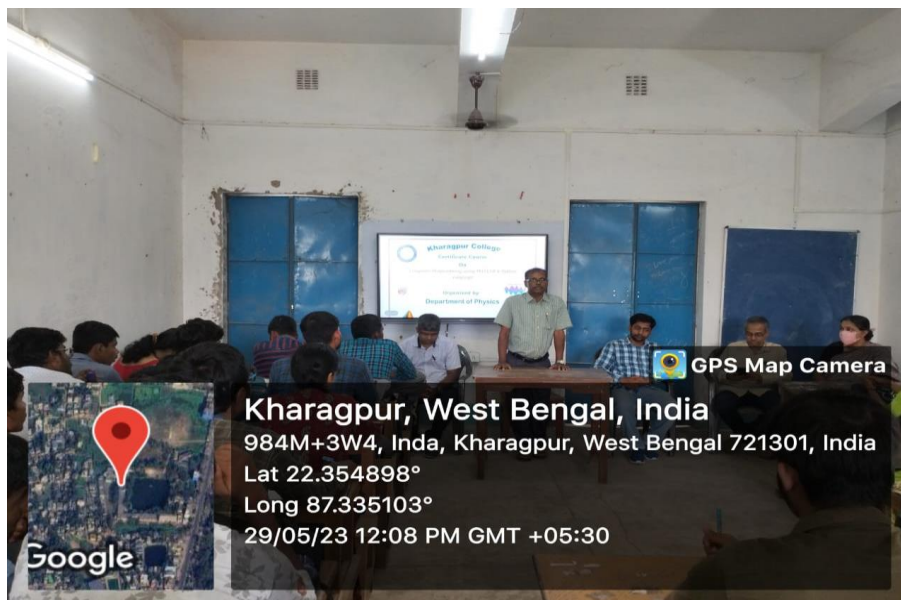
KHARAGPUR COLLEGE

KHARAGPUR

ESTD. : 1949

P.O.– Inda, Kharagpur, Municipality– Kharagpur, Sub-Division– Kharagpur,
P.S.– Kharagpur (T), Dist.– Paschim Medinipur, West Bengal, PIN– 721305.

Geo-tagged photos of certificate course on Computer Programming using MATLAB & Python Language by Department of Physics from 29.05.2023 to 10.07.2023



ATTESTED

Principal
Kharagpur College

Department of Physics
Kharagpur College

Certificate Course on “Computer Programming using MATLAB & Python Language”.

(Duration: 29.05.2023 to 10.07.2023)

Module - 1

1. Local environment setup
 - a. Basic installation steps
2. Understanding the MATLAB environment
 - a. Current folder
 - b. Command window
 - c. Workspace
 - d. Command history
3. Basic syntax
 - a. Some basic hands on practice
 - b. Use of semicolon in MATLAB
 - c. Adding comments to the code
 - d. Some commonly used operators and special characters
 - e. Naming variables
 - f. Saving and loading variables
4. Variables
 - a. Assigning variables
 - b. Multiple assignments
 - c. The clear command
 - d. Long assignments
 - e. Creating vectors
 - f. Creating matrices
5. Commands
 - a. Commands for managing a session
 - b. Commands for working with the system
 - c. Input and output commands
 - d. Vector, matrix and array commands
 - e. Plotting commands
 - f. Creating script files (.m files)
6. Operators
 - a. Arithmetic operators
 - b. Relational operators
 - c. Logical operators

Module – 2

1. Vectors
 - a. Row vectors
 - b. Column vectors

- c. Referencing the elements of a vector
- d. Vector operations
- 2. Matrix
 - a. Creating a matrix
 - b. Referencing the elements of a matrix
 - c. Deleting a row or a column in a matrix
 - d. Matrix operations
- 3. Arrays
 - a. Some special arrays in MATLAB
 - b. Multidimensional arrays
 - c. Some array functions
 - d. Sorting arrays
 - e. Cell array
- 4. Colon notation

Module – 3

- 1. Analytical Functions
 - a. Syntax of an analytical function
 - b. Anonymous functions
- 2. Data Import
 - a. The importdata() function
 - b. Import text data files
- 3. Data Output
- 4. Making plots
 - a. The plot() function
 - b. Adding titles and labels to the plot
 - c. Drawing multiple functions on the same graph
 - d. Setting colors on graph
 - e. Generating sub plot

Module – 4

- 1. Algebra
 - a. Solving basic algebraic equations
 - b. Solving quadratic equations
 - c. Solving higher order equations
 - d. Solving system of equations
- 2. Differentiation
 - a. The diff() command
 - b. Calculating higher order derivatives
 - c. Finding maxima and minima of a curve
 - d. Solving differential equations
- 3. Integration
 - a. Computing indefinite integral
 - b. Computing definite integral
- 4. Polynomials
 - a. Representing polynomials as row vectors

- b. Evaluating polynomials
- c. Finding roots of a polynomials
- d. Polynomial curve fitting

Module – 5

1. Differential Equations
 - a. First order linear ODE
 - b. Solve differential equation with condition
 - c. Non-linear differential equation with initial condition
 - d. Second order ODE with initial conditions
 - e. Third order ODE with initial conditions

Module – 6

1. Introduction to Python
2. Overview of Python and its applications
3. Installation of Python and an IDE (e.g., Anaconda, Jupyter notebook, Pydroid 3 for Android mobile)
4. Basics: variables, data types (Int, Float, Complex, List, Tuple, Set, String etc.), and basic mathematical operations

Module – 7

1. Control Flow: Conditional statements (if, else, elif)
2. Looping structures (for, while)
3. Applications (To check even or odd number, Leap year, sum of n numbers, Factorial)

Module – 8

1. Introduction to functions
User defined functions def: (return statement, default values for arguments, key word arguments), lambda function.
2. Applications

Module – 9

1. Introduction to lists, strings and tuples
2. Operations using lists, strings and tuples
3. List comprehensions

Module – 10

1. Introduction of graph plotting using Python
 2. Pip installation of matplotlib in pydroid 3 using python repository plugin
 3. Matplotlib as a plotting Module: Basics of XY-plotting of function (i) power laws and exponential functions, (ii) trigonometric functions.
-

Department of Physics, Kharagpur College

Certificate Course on "Computer Programming using MATLAB & Python Language"

Course Schedule

| | | |
|------------|--|---------------------|
| 29.05.2023 | Inaugural Address by the Principal & HOD Physics and brief introduction to the course (12.00 noon to 2.00 pm). | |
| Dates | 2 pm -3:30 pm | 3:30 pm -5 pm |
| 01.06.2023 | MR | MR |
| 12.06.2023 | MR | JP |
| 13.06.2023 | MR | JP |
| 14.06.2023 | MR | JP |
| 16.06.2023 | MR | MR |
| 21.06.2023 | MR | RS |
| 23.06.2023 | MR | RS |
| 28.06.2023 | MR | RNM |
| 30.06.2023 | MR | RNM |
| 04.07.2023 | MR | RNM |
| 10.07.2023 | Evaluation | Valedictory Address |

JP – Dr. Jyotrimoy Pramanik, RS – Dr. Ritwik Saha, RNM – Prof. Rudra Narayan Mondal,
MR – Mr. Manideep Roy (PMRF, IIT-KGP)

Coordinators of certificate course

Handwritten signature
A.S.23



Principal

Handwritten signature

Principal
Kharagpur College

Kharagpur College
Department of Physics
Certificate course on “Computer Programming using MATLAB & Python Language”
Duration: 29/05/2023 to 10/07/2023

Date of Evaluation: 10.07.2023

MCQ

| | |
|-------------|--|
| Name | |
| Sem | |
| Roll number | |

Tick the correct answer

- 1) Which among the following can be a variable name in Matlab
 - a. x6
 - b. for
 - c. 1college
 - d. Calculate#1

- 2) If $f = \sin(x*y)$. Which among the following Matlab code can used to find the partial derivate of f with respect to x.
 - a. syms y
diff(f)
 - b. syms x,y
diff(f,x)
 - c. syms x,y
diff(f,y)
 - d. syms x
diff(f)

- 3) Which among the following in-built function is used for solving numerical integration in Matlab.
 - a. integrate
 - b. int
 - c. integration
 - d. integral

- 4) Which among the following in-built function is used for solving differential equation in Matlab.
- dsolve
 - dsolution
 - diffsolve
 - solvediff
- 5) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).
- A.*B
 - B.*A
 - B*A
 - A*B
- 6) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform element wise multiplication of two matrices.
- A*B
 - B*A
 - B*.A
 - B.*A
- 7) Index of an array in Matlab start with
- 0
 - 1
 - Depends on the class of array.
 - Unknown
- 8) What is the return type of angles function in Matlab.
- Degree
 - Radians and Degree
 - Radians
 - Depend on the argument.
- 9) Which of the following command is used to clear command window in Matlab.
- clc
 - clear

- c. close all
- d. clear all

10) Which among the following is not a predefined variable in Matlab

- a. inf
- b. pi
- c. i
- d. gravity

11) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.

- a. det
- b. inv
- c. adjoint
- d. adj

12) In Matlab, which among the command is used to add text label to x axis.

- a. axes
- b. xlabel
- c. axis
- d. ylabel

13) $x=2*3;$
 $y=x^2$

What will be the output when the above commands are executed in Matlab.

- a. $y=12$
 $x=2*3$
- b. $y=12$
 $x=6$
- c. $y=2*3*2$
 $x=6$
- d. $y=12$

14) What is the use of abs function in Matlab.

- a. Returns the magnitude of a number.
- b. Returns the square root of a number.
- c. Returns the power of a number.

d. None

15) Which among the following is used to check if two elements are equal in Matlab.

a. !=

b. =

c. ==

d. isequal

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Language" Duration: 29/05/2023 to 10/07/2023

Date of Evaluation: 10.07.2023

MCQ

| | |
|-------------|--------------------------------|
| Name | Soumy Somudip Koley |
| Sem | 4th |
| Roll number | 2120078 |

Tick the correct answer

1) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.

- a. det
- b. inv
- c. adjoint
- d. adj

2) In Matlab, which among the command is used to add text label to x axis.

- a. axes
- b. xlabel
- c. axis
- d. ylabel

3) $x=2*3;$
 $y=x*2$

What will be the output when the above commands are executed in Matlab.

- a. $y=12$
 $x=2*3$
- b. $y=12$
 $x=6$
- c. $y=2*3*2$
 $x=6$
- d. $y=12$

4) What is the use of abs function in Matlab.

- a. Returns the magnitude of a number.
- b. Returns the square root of a number.

- c. Returns the power of a number.
- d. None

5) Which among the following is used to check if two elements are equal in Matlab.

- a. !=
- b. =
- c. ==
- d. isequal

6) Which among the following can be a variable name in Matlab

- a. x10
- b. for
- c. while
- d. Calculate#1

7) If $f = \sin(x*y)$. Which among the following Matlab code can be used to find the partial derivative of f with respect to x .

- a. syms y
diff(f)
- b. syms x,y
diff(f,x)
- c. syms x,y
diff(f,y)
- d. syms x
diff(f)

8) Which among the following in-built function is used for solving numerical integration in Matlab.

- a. integrand
- b. int
- c. integration
- d. integral

9) Which among the following in-built function is used for solving differential equation in Matlab.

- a. dsolve

- b. dsolution
- c. diffsolve
- d. solvediff

10) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).

- a. A.*B
- b. B.*A
- c. B*A
- d. A*B

08
10

10/7/2023

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MCQ

| | |
|-------------|-------------|
| Name | Jayanta Deb |
| Sem | 6th |
| Roll number | 2023028 |

Tick the correct answer

- 1) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.
- a. det
 - b. inv
 - c. adjoint
 - d. adj
- 2) In Matlab, which among the command is used to add text label to x axis.
- a. axes
 - b. xlabel
 - c. axis
 - d. ylabel
- 3) $x=2*3;$
 $y=x*2$
What will be the output when the above commands are executed in Matlab.
- a. $y=12$
 $x=2*3$
 - b. $y=12$
 $x=6$
 - c. $y=2*3*2$
 $x=6$
 - d. $y=12$
- 4) What is the use of abs function in Matlab.
- a. Returns the magnitude of a number.
 - b. Returns the square root of a number.

- c. Returns the power of a number.
- d. None

5) Which among the following is used to check if two elements are equal in Matlab.

- a. !=
- b. =
- c. ==
- d. isequal

6) Which among the following can be a variable name in Matlab

- a. ~~xb~~
- b. for
- c. while
- d. Calculate#1

7) If $f = \sin(x*y)$. Which among the following Matlab code can be used to find the partial derivative of f with respect to x .

- a. syms y
diff(f)
- b. syms x,y
diff(f,x)
- c. syms x,y
diff(f,y)
- d. syms x
diff(f)

8) Which among the following in-built function is used for solving numerical integration in Matlab.

- a. integrand
- b. int
- c. integration
- d. integral

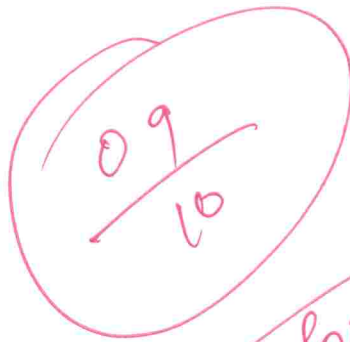
9) Which among the following in-built function is used for solving differential equation in Matlab.

- a. dsolve

- b. dsolution
- c. diffsolve
- d. solvediff

10) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).

- a. A.*B
- b. B.*A
- c. B*A
- d. A*B



10/7/2023.

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MCQ


| | |
|-------------|------------|
| Name | Aniket Roy |
| Sem | 6TH |
| Roll number | 2023005 |

Tick the correct answer


- 1) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.
- a. det
 - b. inv
 - c. ~~adjoint~~ X
 - d. adj
- 2) In Matlab, which among the command is used to add text label to x axis.
- a. ~~axes~~
 - b. xlabel ✓
 - c. axis
 - d. ylabel
- 3) $x=2*3;$
 $y=x*2$
What will be the output when the above commands are executed in Matlab.
- a. $y=12$
 $x=2*3$
 - b. $y=12$
 $x=6$ ✓
 - c. $y=2*3*2$
 $x=6$
 - d. $y=12$
- 4) What is the use of abs function in Matlab.
- a. Returns the magnitude of a number.
 - b. Returns the square root of a number. X

- c. Returns the power of a number.
- d. None


5) Which among the following is used to check if two elements are equal in Matlab.

- a. !=
 - b. =
 - c. ==
 - d. isequal
- 


6) Which among the following can be a variable name in Matlab

- a. x0
 - b. for
 - c. while
 - d. Calculate#1
- 

7) If $f = \sin(x*y)$. Which among the following Matlab code can be used to find the partial derivative of f with respect to x .

- a. syms y
diff(f)
 - b. syms x,y
diff(f,x)
 - c. syms x,y
diff(f,y)
 - d. syms x
diff(f)
- 

8) Which among the following in-built function is used for solving numerical integration in Matlab.

- a. integrand
 - b. int
 - c. integration
 - d. integral
- 

9) Which among the following in-built function is used for solving differential equation in Matlab.

- a. dsolve
- 

- b. dsolution
- c. diffsolve
- d. solvediff

10) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).

- a. A.*B
- b. B.*A
- c. B*A
- d. A*B



07
10

15/07/2023

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MCQ

| | |
|-------------|------------|
| Name | Ankan Bera |
| Sem | 6th |
| Roll number | 2023010 |

Tick the correct answer

1) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.

- a. det
- b. inv
- c. adjoint
- d. adj

2) In Matlab, which among the command is used to add text label to x axis.

- a. axes
- b. xlabel
- c. axis
- d. ylabel

3) $x=2*3;$
 $y=x*2$

What will be the output when the above commands are executed in Matlab.

- a. $y=12$
 $x=2*3$
- b. $y=12$
 $x=6$
- c. $y=2*3*2$
 $x=6$
- d. $y=12$

4) What is the use of abs function in Matlab.

- a. Returns the magnitude of a number.
- b. Returns the square root of a number.

- c. Returns the power of a number.
- d. None



5) Which among the following is used to check if two elements are equal in Matlab.

- a. !=
- b. =
- c. ==
- d. isequal



6) Which among the following can be a variable name in Matlab

- a. x6
- b. for
- c. while
- d. Calculate#1



7) If $f = \sin(x*y)$. Which among the following Matlab code can be used to find the partial derivative of f with respect to x .

- a. syms y
diff(f)
- b. syms x,y
diff(f,x)
- c. syms x,y
diff(f,y)
- d. syms x
diff(f)



8) Which among the following in-built function is used for solving numerical integration in Matlab.

- a. integrand
- b. int
- c. integration
- d. integral



9) Which among the following in-built function is used for solving differential equation in Matlab.

- a. dsolve

- b. ~~dsolution~~
- c. ~~diffsolve~~
- d. solvediff



10) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).

- a. A.*B
- b. B.*A
- c. ~~B*A~~
- d. A*B



$\frac{07}{10}$

10/7/23

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MCQ

| | |
|-------------|-----------|
| Name | Tithi Sen |
| Sem | 6th |
| Roll number | 2023078 |

Tick the correct answer

- 1) Which among the following inbuilt function returns the adjoint of a matrix in Matlab.
- a. det
 - b. inv
 - c. adjoint
 - d. adj
- 2) In Matlab, which among the command is used to add text label to x axis.
- a. axes
 - b. xlabel
 - c. axis
 - d. ylabel
- 3) $x=2*3;$
 $y=x*2$
What will be the output when the above commands are executed in Matlab.
- a. $y=12$
 $x=2*3$
 - b. $y=12$
 $x=6$
 - c. $y=2*3*2$
 $x=6$
 - d. $y=12$
- 4) What is the use of abs function in Matlab.
- a. Returns the magnitude of a number.
 - b. Returns the square root of a number.

- c. Returns the power of a number.
- d. None

5) Which among the following is used to check if two elements are equal in Matlab.

- a. !=
- b. =
- c. ==
- d. isequal



6) Which among the following can be a variable name in Matlab

- a. xb
- b. for
- c. while
- d. Calculate#1



7) If $f = \sin(x*y)$. Which among the following Matlab code can used to find the partial derivate of f with respect to x.

- a. syms y
diff(f)
- b. syms x,y
diff(f,x)
- c. syms x,y
diff(f,y)
- d. syms x
diff(f)



8) Which among the following in-built function is used for solving numerical integration in Matlab.

- a. integrand
- b. int
- c. integration
- d. integral



9) Which among the following in-built function is used for solving differential equation in Matlab.

- a. dsolve



- b. dsolution
- c. diffsolve
- d. solvediff

10) If A and B are two matrices. Which among the following is the correct MATLAB syntax to perform matrix multiplication (BA).

- a. A*B
- b. B*A
- c. B*A
- d. A*B



A handwritten fraction $\frac{8}{10}$ is circled in red.

10/07/2023.

St. No. : *KC/Phys/2023/05/002*

Kharagpur College



Tithi Sen (6th Semester)

This is to certify that.....

has successfully completed 10 Days (30 Hours).....

Certificate Course in Computer Programming using MATLAB & Python Language.....

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Kharagpur College, Kharagpur, Paschim Medinipur, West Bengal.

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(Kharagpur College)*

(Signature)

*Principal
(Kharagpur College)*

St. No. : *KC/Phys/2023/05/008*

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S.K.

*Co-ordinator
(Kharagpur College)*

(Signature)

*Principal
(Kharagpur College)*

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This is to certify that..... **Jayanta Deb (6th Semester)**

has successfully completed **10 Days (30 Hours).**

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(Kharagpur College)*

(Signature)

*Principal
(Kharagpur College)*

St. No. : *KC/Phys/2023/05/017*

Kharagpur College



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has successfully completed **10 Days (30 Hours)**.

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Kharagpur College, Kharagpur, Paschim Medinipur, West Bengal.

S.K.

**Co-ordinator
(Kharagpur College)**

(Signature)

**Principal
(Kharagpur College)**

St. No. : *KC/Phys/2023/05/024*

Kharagpur College



This is to certify that.....
Aniket Roy (6th Semester)

has successfully completed
10 Days (30 Hours).

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Computer Programming using MATLAB &
Python Language

held between
29-May-2023 *and*
10-July-2023 *organized by.*

Department of Physics

Kharagpur College, Kharagpur, Paschim Medinipur, West Bengal.

S.K.

Co-ordinator
(Kharagpur College)

(Signature)

Principal
(Kharagpur College)