

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK
MATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN



















SEMESTER/BRANCH-1ST SEM (All branches)

SUBJECT:- ENGINEERING MATH-I (2020-21 WINTER)

FACULTY NAME:- Nirupama Mohanty, Dr. Bidyutkanti Nayak, Gayatri Parida

Semester From Dt.09.11.2020 to Dt. 31.03.2021

No of week:15

Week No.	Dates	No. of Periods available	Topics to be Covered	Date of teaching	Shortfall if any	Reasons	Date of make up of shortfall	Initial of Faculty
1	9.11.20 10.11.20 11.11.20 12.11.20 13.11.20		Unit-1 Matrices & Determinants a) Types of matrices b) Algebra of matrices c) Determinant	9.11.20 10.11.20 11.11.20 12.11.20 13.11.20				   
2	15.11.20 17.11.20 18.11.20 19.11.20 20.11.20 21.11.20		Unit-1 Matrices & Determinants a) properties of determinants b) Inverse of matrix (second and third order)	16.11.20 17.11.20 18.11.20 19.11.20 20.11.20 21.11.20				    
3	23.11.20 24.11.20 25.11.20 26.11.20 27.11.20 28.11.20		Unit-1 Matrices & Determinants a) Cramer's Rule (only two variable) Solution of simultaneous equations by matrix inverse method (only two variable)	23.11.20 24.11.20 25.11.20 26.11.20 27.11.20 28.11.20				    
4	1.12.20 2.12.20 3.12.20 4.12.20 5.12.20		UNIT-2 TRIGONOMETRY a) Trigonometrical ratios b) Compound angles, multiple and sub-multiple angles (only formulae) c) Define inverse circular functions and its properties (no derivation)	1.12.20 2.12.20 3.12.20 4.12.20 5.12.20				   

5	7-12.20 8-12.20 9-12.20 10-12.20 11-12.20 12-12.20		UNIT-2 TRIGONOMETRY b) Compound angles, multiple and sub-multiple angles (only formula)	7-12.20 8-12.20 9-12.20 10-12.20 11-12.20 12-12.20					K07 GP GP GP GP GP
6	14-12.20 15-12.20 16-12.20 17-12.20 18-12.20 19-12.20		UNIT-2 TRIGONOMETRY c) Define inverse circular functions and its properties (no derivation)	14-12.20 15-12.20 16-12.20 17-12.20 18-12.20 19-12.20					GP GP GP GP GP GP
7	21-12.20 22-12.20 23-12.20 24-12.20		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): a) Introduction of geometry in two dimension b) Define slope of a line and angle between two lines, conditions of perpendicularity and parallelism of two lines	21-12.20 22-12.20 23-12.20 24-12.20					GP GP GP GP
8	28-12.20 29-12.20 30-12.20 31-12.20		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): c) Different forms of straight lines (only formulae) a. slope intercept form b. One point form c. Two point forms d. Intercept form e. Perpendicular form d) Derive equation of straight line a. Passing through a point and parallel to a line b. passing through a point and perpendicular to a line	28-12.20 29-12.20 30-12.20 31-12.20					GP GP GP GP

9	1.1.21 2.1.21		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): e) Equation of the line passing through the intersection of two lines f) Determine the perpendicular distance from a point to a line	1.1.21 2.1.21					GP GP
10	4.1.21 5.1.21 6.1.21 7.1.21 8.1.21 9.1.21		Unit-4 Circle: Equation of circle. (i) centre and radius form (ii) general equation of a circle (iii) end points of diameter form	4.1.21 5.1.21 6.1.21 7.1.21 8.1.21 9.1.21					GP GP GP GP GP GP
11	11.1.21 12.1.21 13.1.21 15.1.21 16.1.21		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS (i) Distance formulae, section formulae, direction ratio, direction cosine (ii) Angle between two lines (condition of parallelism and perpendicularity)	11.1.21 12.1.21 13.1.21 15.1.21 16.1.21					GP GP GP GP GP
12	18.1.21 19.1.21 20.1.21 21.1.21 22.1.21		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS a) Equation of a plane General form Angle between two planes	18.1.21 19.1.21 20.1.21 21.1.21 22.1.21					GP GP GP GP GP

13	<p>25-1-21 29-1-21 28-1-21 29-1-21 30-1-21</p>	<p>Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS) b) perpendicular distance of a point from a plane equation of a plane passing through a point parallel to a plane perpendicular to a plane</p>					<p>20 20 5# 5# 5#</p>
14	<p>1-2-21 2-2-21 3-2-21 4-2-21 5-2-21</p>	<p>Unit-6 SPHERE Equation of a sphere i) center radius form ii) general form iii) two end points of a diameter form (only formulae and problems)</p>					<p>5# 5# 5# 5# 5#</p>
15	<p>6-2-21 8-2-21 9-2-21 10-2-21 11-2-21 12-2-21 17-2-21 3-3-21</p>	<p>Problem practice</p>					<p>20 20 20 20 20 20 20 20 20 20</p>
		<p>Revision</p>					<p>20</p>

BHUBANANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK
MATHEMATICS AND SCIENCE DEPARTMENT ACADEMIC PLAN

SEMESTER/BRANCH-1ST SEM (All ^{CIVIL} branches) (Sec - **C**)

SUBJECT:- ENGINEERING MATH-I (2020-21 WINTER)

FACULTY NAME:- ^{SR.} Goutam PARIJA
SUVANANDA MOH A PATRA A

Semester From Dt.09.11.2020 to Dt. 31.3.21

No of week:15

Week No.	Dates	No. of Periods available	Topics to be Covered	Date of teaching	Shortfall if any	Reasons	Date of make up of shortfall	Initial of Faculty
1	9/11/20 10/11/20 12/11/20 14/11/20		Unit-1 Matrices & Determinants a) Types of matrices b) Algebra of matrices c) Determinant	9/11/20 10/11/20 12/11/20 13/11/20				S.M G.M S.M S.M CP 13/11
2	16/11/20 17/11/20 18/11/20 19/11/20 20/11/20 21/11/20		Unit-1 Matrices & Determinants a) properties of determinants b) Inverse of matrix (second and third order)	16/11/20 19/11/20 18/11/20 19/11/20 20/11/20 21/11/20				S.M S.M S.M S.M S.M S.M CA/ 24/11
3	23/11/20 24/11/20 25/11/20 26/11/20 27/11/20 28/11/20		Unit-1 Matrices & Determinants a) Cramer's Rule (only two variable) Solution of simultaneous equations by matrix inverse method (only two variable)	23/11/20 24/11/20 25/11/20 26/11/20 27/11/20 28/11/20				S.M S.M S.M S.M S.M S.M CA 26/11
4	1/12/20 2/12/20 3/12/20 4/12/20 5/12/20		UNIT-2 TRIGONOMETRY a) Trigonometrical ratios b) Compound angles, multiple and sub-multiple angles (only formulae) c) Define inverse circular functions and its properties (no derivation)	1/12/20 2/12/20 3/12/20 4/12/20 5/12/20				S.M S.M S.M S.M S.M CA 26/11

5	<p>7/12/20</p> <p>8/12/20</p> <p>9/12/20</p> <p>10/12/20</p> <p>11/12/20</p>	<p>UNIT-2</p> <p>TRIGONOMETRY</p> <p>b) Compound angles, multiple and sub-multiple angles (only formula)</p>	<p>7/12/20</p> <p>8/12/20</p> <p>9/12/20</p> <p>10/12/20</p> <p>11/12/20</p>	<p>UNIT-2</p> <p>TRIGONOMETRY</p> <p>CU</p>
6	<p>12/12/20</p> <p>13/12/20</p> <p>14/12/20</p> <p>15/12/20</p> <p>16/12/20</p> <p>17/12/20</p> <p>18/12/20</p> <p>19/12/20</p>	<p>UNIT-2</p> <p>TRIGONOMETRY</p> <p>c) Define inverse circular functions and its properties (no derivation)</p>	<p>12/12/20</p> <p>13/12/20</p> <p>14/12/20</p> <p>15/12/20</p> <p>16/12/20</p> <p>17/12/20</p> <p>18/12/20</p> <p>19/12/20</p>	<p>UNIT-2</p> <p>TRIGONOMETRY</p> <p>CU</p>
7	<p>21/12/20</p> <p>22/12/20</p> <p>23/12/20</p> <p>24/12/20</p>	<p>UNIT-3</p> <p>Co-Ordinate Geometry in two-dimensions (straight line):</p> <p>a) Introduction of geometry in two dimension</p> <p>b) Define slope of a line and angle between two lines, conditions of perpendicularity and parallelism of two lines</p>	<p>21/12/20</p> <p>22/12/20</p> <p>23/12/20</p> <p>24/12/20</p>	<p>UNIT-3</p> <p>CU</p>
8	<p>28/12</p> <p>29/12</p> <p>30/12</p> <p>31/12</p>	<p>UNIT-3</p> <p>Co-Ordinate Geometry in two-dimensions (straight line):</p> <p>c) Different forms of straight lines (only formulae)</p> <p>a. slope intercept form</p> <p>b. One point form</p> <p>c. Two point forms</p> <p>d. Intercept form</p> <p>e. Perpendicular form</p> <p>d) Derive equation of straight line</p> <p>a. Passing through a point and parallel to a line</p> <p>b. passing through a point and perpendicular to a line</p>	<p>28/12</p> <p>29/12</p> <p>30/12</p> <p>31/12</p>	<p>UNIT-3</p> <p>CU</p>

9	1/01/21 2/01/21		UNIT-3 Co-Ordinate Geometry in two-dimensions (straight line): e) Equation of the line passing through the intersection of two lines f) Determine the perpendicular distance from a point to a line	1/01/21 2/01/21					1/01 2/01 CK 22-1
10	4/01/21 5/01/21 6/01/21 7/01/21 8/01/21 9/01/21		Unit-4 Circle: Equation of circle. (i) centre and radius form (ii) general equation of a circle (iii) end points of diameter form	4/01/21 5/01/21 6/01/21 7/01/21 8/01/21 9/01/21					4/01 5/01 6/01 7/01 8/01 9/01 CK 22-1
11	11/01 12/01 13/01 14/01 16/01		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS (i) Distance formulae, section formulae, direction ratio, direction cosine (ii) Angle between two lines (condition of parallelism and perpendicularity)	11/01/21 12/01/21 13/01/21 14/01/21 16/01/21					11/01 12/01 13/01 14/01 16/01 CK 22-1
12	18/01 19/01 20/01 21/01 22/01		Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS a) Equation of a plane General form Angle between two planes	18/01/21 19/01/21 20/01/21 21/01/21 22/01/21					18/01 19/01 20/01 21/01 22/01 CK 22-1

13	<p>95.1.21 28.1.21 29.1.21 30.1.21</p>	<p>Unit-5 5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS b) perpendicular distance of a point from a plane equation of a plane passing through a point parallel to a plane perpendicular to a plane</p>	<p>25.1.21 27.1.21 28.1.21 29.1.21 30.1.21</p>				<p>SM SM GTP GTP GTP</p>
14	<p>10.2.21 8.2.21 3.2.21 4.2.21 5.2.21 6.2.21</p>	<p>Unit-6 SPHERE Equation of a sphere i) center radius form ii) general form iii) two end points of a diameter form (only formulae and problems)</p>					<p>GP GP GP</p>
15	<p>8.2.21 9.2.21 10.2.21 11.2.21 12.21 13.2.21</p>	<p>Problem practice</p>					<p>GP GP GP</p>