


Lesson Plan

Subject Mathematics (Code) TH-3 Name of faculty Kajal Priya pane

Semester 2nd Class allotted 75 Branch Civils & Electrical

| Discipline | Semester | From date: | To date: | Teaching Aid |
|------------|-----------------------|---|----------|----------------------|
| Subject: | No. of days/ per week | Theory/ Practical - Topics/Lesson | | |
| Week | Date/Period | | | |
| 1 | 14.3.22 | a) Vector Algebra @ Introduction | | White board & Marker |
| | 15.3.22 | b) types of vectors (null vector, n^d vector, coplanar vectors) in component form | | |
| | 17.3.22 | | | |
| 2 | 21.3.22 | d) representation of vector. | | White board & Marker |
| | 22.3.22 | e) magnitude and direction of vectors. | | |
| | 26.3.22 | e) Addition and subtraction of vectors. f) position vector g) scalar product of two vectors. | | |
| 3 | 28.3.22 | h) geometrical meaning of dot product | | White board & Marker |
| | 29.3.22 | i) Angle between two vectors. | | |
| | 02.4.22 | j) scalar and vector projection of two vectors. k) vector product and geometrical meaning (area of triangle and parallelogram) | | |
| 4 | 4.4.22 | Revision | | White board & Marker |
| | 9.4.22 | 2) Limits and continuity @ definition of function, based on set theory | | |
| 5 | 11.4.22 | b) Types of functions. | | White board & Marker |
| | 12.4.22 | i) constant function. | | |
| | 13.4.22 | ii) Identity function. | | |
| | 16.4.22 | iii) Absolute value function iv) The greatest integer function v) Trigonometric function | | |
| 6 | 18.4.22 | vi) exponential function | | White board & Marker |
| | 19.4.22 | vii) logarithmic function | | |
| | 23.4.22 | c) Introduction of limit, existence of limit, methods of evaluation of limit | | |
| 7 | 25.4.22 | e) Def ⁿ of continuity of a function at a point | | White board & Marker |
| | 26.4.22 | 3) point derivatives @ derivative of a function at a point @ Algebra of derivative. | | |
| | 30.4.22 | e) derivative of standard functions | | |


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|------|-------------|--|--------------|
| 8 | 2.5.22 | a) derivative of composite function | White board |
| | to | b) methods of differentiation of | ? |
| | 7.5.22 | i) parametric function ii) Implicit function iii) logarithmic function. iv) a function w.r.t. another function | Marker |
| 9 | 9.5.22 | f) Applications of derivative | White board |
| | to | i) successive differentiation (up to | ? |
| | 14.5.22 | second order) ii) partial differentiation (function of two variables up to second order) g) problems based on above. | Marker |
| 10 | 17.5.22 | a) Integration @ Def ⁿ of Integration | White board |
| | to | b) Inverse of differentiation. | ? |
| | 21.5.22 | c) Integrals of standard functions d) methods of integration | Marker |
| 11 | 23.5.22 | i) Integration by substitution | White board |
| | to | ii) Integration by parts. | ? |
| | 28.5.22 | a) Integration of the following forms i) $\frac{dx}{x^2+a^2}$ ii) $\frac{dx}{x^2-a^2}$ iii) $\frac{dx}{a^2+x^2}$ iv) $\frac{dx}{x^2-a^2}$ | Marker |
| 12 | 31.5.22 | e) Definite Integral, properties of definite Integrals. | White board |
| | to | i) $\int_a^b f(x) dx = -\int_b^a f(x) dx$ | ? |
| | 4.5.22 | ii) $\int_a^b f(x) dx = -\int_b^a f(x) dx$ f) Application of Integration | Marker |
| 13 | 6.6.22 | i) Area an closed by a curve and x-axis | White board |
| | to | ii) Area of a circle with centre at origin. | ? |
| | 11.6.22 | g) Differential equation a) order and degree of a differential equation. | Marker |
| 14 | 13.6.22 | b) solution of differential eqn | White board |
| | to | i) 1st order & 1st degree eqn ⁿ by the method of separation of variables. | ? |
| | 18.06.22 | ii) linear equation by $px + qy = r$ where p, q are function of x. | Marker |
| 15 | 20.6.22 | | White board |
| | to | | ? |
| | 25.6.22 | Ques form. answers discussion | Marker |

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