

**THE WISDOM GLOBAL SCHOOL**

**SYLLABUS BIFURCATION**

**GRADE 12**

**SUBJECT:- MATHEMATICS**

**NAME OF BOOKS: NCERT/RD SHARMA**

**YEAR 2022-23**

**NAME OF THE TEACHER:- MR.AMIT PANDEY**

| S.NO                           | BOOK NAME                    | MONTH | CHAPTER NUMBER | CHAPTER NAME            | SUB-TOPICS  | NO. OF DAYS REQUIRED | ACTIVITY/PROPS | SMART BOARD(PPT /VIDEO)         | CHARTS       |
|--------------------------------|------------------------------|-------|----------------|-------------------------|---|----------------------|----------------|---------------------------------|--------------|
| 1                              | NCERT/RD SHARMA              | APRIL | 3              | MATRICES                | INTRODUCTION  | 2                    | NO             | PPT                             | NO           |
| 2                              |                              |       |                |                         | TYPES OF MATRICES   | 2                    | NO             | PPT                             | NO           |
| 3                              |                              |       |                |                         | TRANPOSE OF A MATRIX  | 1                    | NO             | PPT                             | NO           |
| 4                              |                              |       |                |                         | SYMMETRIC AND SKEW SYMMETRIC MATRICES   | 2                    | NO             | PPT                             | NO           |
| 5                              |                              |       |                |                         | OPERATION ON MATRICES: ADDITION AND MULTIPLICATION AND MULTIPLICATION WITH A SCALAR | 3                    | YES            | PPT                             | NO           |
| 6                              |                              |       |                |                         | NONCOMMUTATIVITY OF MULTIPLICATION OF MATRICES                                      | 3                    | NO             | NO                              | NO           |
| 7                              |                              |       |                |                         | INVERTIBLE MATRICES   | 4                    | NO             | NO                              | NO           |
| 8                              |                              |       |                |                         | QUESTIONS RELATED TO CHAPTER  | 4                    | NO             | NO                              | NO           |
| 9                              |                              |       |                |                         | TEST  | 1                    | NO             | NO                              | NO           |
| 10                             |                              |       |                |                         | NCERT/RD SHARMA   | MAY                  | 2              | INVERSE TRIGONOMETRIC FUNCTIONS | INTRODUCTION |
| 11                             | DEFINITION                   | 2     | NO             | PPT                     |   |                      |                |                                 | NO           |
| 12                             | RANGE AND DOMAIN             | 4     | NO             | PPT                     |   |                      |                |                                 | NO           |
| 13                             | PRINCIPAL VALUE BRANCH       | 4     | YES            | PPT                     |   |                      |                |                                 | NO           |
| 14                             | QUESTIONS RELATED TO CHAPTER | 5     | NO             | NO                      |   |                      |                |                                 | NO           |
| 15                             | TEST                         | 1     | NO             | NO                      |   |                      |                |                                 | NO           |
| <b>PRE MID TERM ASSESSMENT</b> |                              |       |                |                         |   |                      |                |                                 |              |
| 16                             | NCERT/RD SHARMA              | JULY  | 1              | RELATIONS AND FUNCTIONS | INTRODUCTION  | 2                    | NO             | PPT                             | NO           |
| 17                             |                              |       |                |                         | TYPES OF RELATIONS: REFLEXIVE, SYMMETRIC, TRANSITIVE AND EQUIVALENCE RELATIONS      | 3                    | YES            | NO                              | NO           |
| 18                             |                              |       |                |                         | ONE TO ONE AND ONTO FUNCTIONS   | 2                    | NO             | PPT                             | NO           |
| 19                             |                              |       |                |                         | QUESTIONS RELATED TO CHAPTER  | 4                    | NO             | NO                              | NO           |
| 20                             |                              |       |                |                         | TEST  | 1                    | NO             | NO                              | NO           |
| 21                             |                              |       |                |                         | INTRODUCTION  | 1                    | NO             | PPT                             | NO           |
| 22                             |                              |       |                |                         | DETERMINANT OF A SQUARE MATRIX  | 1                    | YES            | PPT                             | NO           |
| 23                             |                              |       |                |                         | MINORS, CO-FACTORS  | 2                    | NO             | PPT                             | NO           |
| 24                             |                              |       |                |                         | APPLICATIONS OF DETERMINANTS IN FINDING THE AREA OF A TRIANGLE                      | 2                    | YES            | PPT                             | NO           |

|                            |                              |           |    |                                  |   |        |     |                             |                                 |   |    |     |    |
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| 25                         | NCERT/RD SHARMA              | JULY      | 4  | DETERMINANTS                     | ADJOINT AND INVERSE OF A SQUARE MATRIX  | 2      | NO  | PPT                         | NO                              |   |    |     |    |
| 26                         |                              |           |    |                                  | SOLVING SYSTEM OF LINEAR EQUATIONS IN TWO OR THREE VARIABLES (HAVING UNIQUE SOLUTION) USING INVERSE OF A MATRIX | 3      | NO  | PPT                         | NO                              |   |    |     |    |
| 27                         |                              |           |    |                                  | QUESTIONS RELATED TO CHAPTER  | 2      | NO  | NO                          | NO                              |   |    |     |    |
| 28                         |                              |           |    |                                  | TEST  | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 29                         | NCERT/RD SHARMA              | AUGUST    | 5  | CONTINUITY AND DIFFERENTIABILITY | INTRODUCTION  | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 30                         |                              |           |    |                                  | CONTINUITY AND DIFFERENTIABILITY  | 2      | NO  | PPT                         | YES                             |   |    |     |    |
| 31                         |                              |           |    |                                  | DERIVATIVE OF COMPOSITE FUNCTIONS   | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 32                         |                              |           |    |                                  | CHAIN RULE  | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 33                         |                              |           |    |                                  | DERIVATIVE OF INVERSE TRIGONOMETRIC FUNCTIONS   | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 34                         |                              |           |    |                                  | DERIVATIVE OF IMPLICIT FUNCTIONS  | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 35                         |                              |           |    |                                  | CONCEPT OF EXPONENTIAL AND LOGARITHMIC FUNCTIONS  | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 36                         |                              |           |    |                                  | DERIVATIVES OF LOGARITHMIC AND EXPONENTIAL FUNCTIONS  | 1      | YES | NO                          | NO                              |   |    |     |    |
| 37                         |                              |           |    |                                  | LOGARITHMIC DIFFERENTIATION   | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 38                         |                              |           |    |                                  | DERIVATIVE OF FUNCTIONS EXPRESSED IN PARAMETRIC FORMS   | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 39                         |                              |           |    |                                  | SECOND ORDER DERIVATIVES  | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 40                         |                              |           |    |                                  | QUESTIONS RELATED TO CHAPTER  | 2      |     | NO                          |                                 |   |    |     |    |
| 41                         |                              |           |    |                                  | TEST  | 1      | NO  | NO                          | NO                              |   |    |     |    |
| 42                         |                              |           |    |                                  | NCERT/RD SHARMA   | AUGUST | 6   | APPLICATIONS OF DERIVATIVES | INTRODUCTION                    | 1 | NO | PPT | NO |
| 43                         |                              |           |    |                                  |   |        |     |                             | INCREASING/DECREASING FUNCTIONS | 1 | NO | PPT | NO |
| 44                         | TANGENTS AND NORMALS         | 1         | NO | PPT                              |   |        |     |                             | NO                              |   |    |     |    |
| 45                         | MAXIMA AND MINIMA            | 1         | NO | NO                               |   |        |     |                             | NO                              |   |    |     |    |
| 46                         | SIMPLE PROBLEMS              | 1         | NO | NO                               |   |        |     |                             | NO                              |   |    |     |    |
| 47                         | QUESTIONS RELATED TO CHAPTER | 1         | NO | NO                               |   |        |     |                             | NO                              |   |    |     |    |
| 48                         | TEST                         | 1         | NO | NO                               |   |        |     |                             | NO                              |   |    |     |    |
| <b>MID TERM ASSESSMENT</b> |                              |           |    |                                  |   |        |     |                             |                                 |   |    |     |    |
| 49                         | NCERT/RD SHARMA              | SEPTEMBER | 12 | LINEAR PROGRAMMING               | INTRODUCTION  | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 50                         |                              |           |    |                                  | RELATED TERMINOLOGY SUCH AS CONSTRAINTS, OBJECTIVE FUNCTION, OPTIMIZATION                                       | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 51                         |                              |           |    |                                  | GRAPHICAL METHOD OF SOLUTION FOR PROBLEMS IN TWO VARIABLES  | 1      | NO  | PPT                         | NO                              |   |    |     |    |
| 52                         |                              |           |    |                                  | FEASIBLE AND INFEASIBLE REGIONS (BOUNDED)   | 1      | YES | PPT                         | NO                              |   |    |     |    |

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| 53 |                              |           |    |                        | OPTIMAL FEASIBLE SOLUTIONS (UP TO THREE NON-TRIVIAL CONSTRAINTS)  | 1        | NO  | PPT                           | NO  |   |    |     |    |
| 54 |                              |           |    |                        | QUESTIONS RELATED TO CHAPTER  | 2        | NO  | NO                            | NO  |   |    |     |    |
| 55 |                              |           |    |                        | TEST  | 1        | NO  | NO                            | NO  |   |    |     |    |
| 56 |                              |           |    |                        | INTRODUCTION  | 1        | NO  | PPT                           | NO  |   |    |     |    |
| 57 | NCERT/RD SHARMA              | SEPTEMBER | 7  | INTEGRALS              | INTEGRATION AS INVERSE PROCESS OF DIFFERENTIATION   | 1        | YES | PPT                           | YES   |   |    |     |    |
| 58 |                              |           |    |                        | INTEGRATION OF A VARIETY OF FUNCTIONS BY SUBSTITUTION, BY PARTIAL FRACTIONS AND BY PARTS                      | 3        | NO  | PPT                           | NO  |   |    |     |    |
|    |                              |           |    |                        | EVALUATION OF SIMPLE INTEGRALS OF THE FOLLOWING TYPES AND PROBLEMS BASED ON THEM                              | 4        | NO  | PPT                           | NO  |   |    |     |    |
|    | NCERT/RD SHARMA              | OCTOBER   | 7  | INTEGRALS              | FUNDAMENTAL THEOREM OF CALCULUS   | 3        | NO  | PPT                           | NO  |   |    |     |    |
| 61 |                              |           |    |                        | BASIC PROPERTIES OF DEFINITE INTEGRALS  | 3        | NO  | PPT                           | NO  |   |    |     |    |
| 62 |                              |           |    |                        | EVALUATION OF DEFINITE INTEGRALS  | 3        | YES | PPT                           | NO  |   |    |     |    |
| 63 |                              |           |    |                        | QUESTIONS RELATED TO CHAPTER  | 4        | NO  | PPT                           | NO  |   |    |     |    |
| 64 |                              |           |    |                        | TEST  | 1        | NO  | NO                            | NO  |   |    |     |    |
| 65 |                              |           |    |                        |   |          |     |                               | INTRODUCTION  | 1 | NO | PPT | NO |
| 66 |                              |           |    |                        | NCERT/RD SHARMA   | NOVEMBER | 8   | APPLICATIONS OF THE INTEGRALS | APPLICATIONS IN FINDING THE AREA UNDER SIMPLE CURVES, ESPECIALLY LINES, PARABOLAS | 2 | NO | PPT | NO |
| 67 | AREA OF CIRCLES / ELLIPSES   | 2         | NO | PPT                    |   |          |     |                               | NO  |   |    |     |    |
| 68 | QUESTIONS RELATED TO CHAPTER | 3         | NO | PPT                    |   |          |     |                               | NO  |   |    |     |    |
| 69 | TEST                         | 1         |    |                        |   |          |     |                               |   |   |    |     |    |
| 70 |                              |           |    |                        | INTRODUCTION  | 1        | NO  | PPT                           | NO  |   |    |     |    |
| 71 |                              |           |    |                        | DEFINITION, ORDER AND DEGREE  | 2        | YES | PPT                           | NO  |   |    |     |    |
| 72 |                              |           |    |                        | GENERAL AND PARTICULAR SOLUTIONS OF A DIFFERENTIAL EQUATION   | 2        | YES | PPT                           | NO  |   |    |     |    |
| 73 |                              |           |    |                        | SOLUTION OF DIFFERENTIAL EQUATIONS BY METHOD OF SEPARATION OF VARIABLES                                       | 2        | NO  | PPT                           | NO  |   |    |     |    |
| 74 | NCERT/RD SHARMA              | NOVEMBER  | 9  | DIFFERENTIAL EQUATIONS | SOLUTIONS OF HOMOGENEOUS DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEGREE OF THE TYPE: $dy/dx = f(Y/X)$ | 1        | NO  | PPT                           | NO  |   |    |     |    |

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|--------------------------|-----------------|----------|----|-----------------------------|---|---|-----|-----|----|
| 75                       |                 |          |    |                             | SOLUTIONS OF LINEAR DIFFERENTIAL EQUATION OF THE TYPE: $Y' + PY = Q$ , WHERE P AND Q ARE FUNCTIONS OF X OR CONSTANT | 2 | NO  | NO  | NO |
| 76                       |                 |          |    |                             | TEST  | 1 | NO  | NO  | NO |
| 77                       |                 |          |    |                             | INTRODUCTION  | 1 | NO  | PPT | NO |
| 78                       |                 |          |    |                             | DIRECTION COSINES AND DIRECTION RATIOS OF A VECTOR  | 1 | NO  | NO  | NO |
| 79                       | NCERT/RD SHARMA | NOVEMBER | 10 | VECTORS                     | POSITION VECTOR OF A POINT DIVIDING A LINE SEGMENT IN A GIVEN RATIO   | 1 | NO  | PPT | NO |
| 80                       |                 |          |    |                             | PROPERTIES AND APPLICATION OF SCALAR AND CROSS PRODUCT OF VECTORS,  | 1 | NO  | PPT | NO |
| 81                       |                 |          |    |                             | TEST  | 1 | NO  | NO  | NO |
| 82                       |                 |          |    |                             | INTRODUCTION  | 1 | NO  | PPT | NO |
| 83                       |                 |          |    |                             | DIRECTION COSINES AND DIRECTION RATIOS OF A LINE JOINING TWO POINTS   | 1 | NO  | PPT | NO |
| 84                       |                 |          |    |                             | CARTESIAN EQUATION AND VECTOR EQUATION OF A LINE  | 2 | NO  | PPT | NO |
| 85                       | NCERT/RD SHARMA | DECEMBER | 11 | THREE- DIMENSIONAL GEOMETRY | COPLANAR AND SKEW LINES   | 1 | YES | PPT | NO |
| 86                       |                 |          |    |                             | SHORTEST DISTANCE BETWEEN TWO LINES   | 1 | NO  | NO  | NO |
| 87                       |                 |          |    |                             | CARTESIAN AND VECTOR EQUATION OF A PLANE  | 1 | NO  | NO  | NO |
| 88                       |                 |          |    |                             | DISTANCE OF A POINT FROM A PLANE  | 1 | NO  | NO  | NO |
| 89                       |                 |          |    |                             | TEST  | 1 | NO  | NO  | NO |
| 90                       |                 |          |    |                             | INTRODUCTION  | 1 | NO  | PPT | NO |
| 91                       |                 |          |    |                             | CONDITIONAL PROBABILITY   | 1 | NO  | PPT | NO |
| 92                       |                 |          |    |                             | MULTIPLICATION THEOREM ON PROBABILITY   | 1 | YES | PPT | NO |
| 93                       | NCERT/RD SHARMA | DECEMBER | 13 | PROBABILITY                 | INDEPENDENT EVENTS  | 1 | NO  | PPT | NO |
| 94                       |                 |          |    |                             | TOTAL PROBABILITY   | 1 | NO  | PPT | NO |
| 95                       |                 |          |    |                             | BAYES' THEOREM  | 1 | NO  | PPT | NO |
| 96                       |                 |          |    |                             | RANDOM VARIABLE AND ITS PROBABILITY DISTRIBUTION  | 1 | YES | PPT | NO |
| 97                       |                 |          |    |                             | QUESTIONS RELATED TO CHAPTER  | 1 | NO  | NO  | NO |
| 98                       |                 |          |    |                             | TEST  | 1 | NO  | NO  | NO |
| POST MID TERM ASSESSMENT |                 |          |    |                             |   |   |     |     |    |
| PRE BOARD ASSESSMENT     |                 |          |    |                             |   |   |     |     |    |