NAME OF FACULTY : **G.F**

DISCIPLINE : **CIVIL ENGG.**

SEMESTER : **5TH**

SUBJECT : **REPAIR AND MAINTENANCE OF BUILDING**

LESSON PLAN DURATION : **15WEEKS**

DURATION-**3 HRS/WEEK**

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| WEEK | THEORY |
| 1STWEEK | 1STDAY | IMPORTANCE AND SIGNIFICANCE OF REPAIR AND MAINTENANCE OF BUILDINGS |
| 2NDDAY | MEANING OF MAINTENANCE |
| 3RDDAY | OBJECTIVE OF MAINTENANCE |
| 2NDWEEK | 1STDAY | FACTORS INFLUENCING THE REPAIRS AND MAINTENANCE |
| 2NDDAY | EFINITION OF DETERIORATION/DECAY |
| 3RDDAY | FACTORS CAUSING DETERIORATION AND THEIR CLASSIFICATION |
| 3RDWEEK | 1STDAY | HUMAN FACTORS CAUSING DETERIORATION, CHEMICAL FACTORS CAUSING DETERIORATION,ENVIROMENTAL CONDITIONCAUSING DETERIORATION, MISCELLANEOUS FACTORS |
| 2NDDAY | EFFECTS OF VARIOUS AGENCIES OF DETERIORATION ON VARIOUS BUILDING MATERIALS I.E BRICKS,STONES,TIMBER,CONCRETE,PAINTS,M ETALS |
| 3RDDAY |
| 4THWEEK | 1STDAY | DOUBT WILL BE TAKEN AND REVISION |

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|  | 2NDDAY | SYSTEMATIC APPROACH/PROCEDURE OF INVESTIGATION |
| 3RDDAY | SEQUENCE OF DETAILED STEPS FOR DIAGNOSIS OF BUILDINGDEFECTS/PROBLEMS |
| 5THWEEK | 1STDAY | REVISON OF 3ND UNIT |
| 2NDDAY |
| 3RDDAY | LIST NON DESTRUCTIVE AND OTHERS TESTS ONSTRUCTURAL ELEMENTS AND MATERIALS TO EVALUATE THE CONDITION OF THE BUILDING |
| 6THWEEK | 1STDAY | DEFINE DEFECTS IN BUILDINGS AND CLASSIFICATION OF DEFECTS |
|  | 2ND | BUILDING DEFECTS IN VARIOUS BUILDING |
|  | DAY | ELEMENTS FOUNDATIONS ,BASEMENTS AND |
|  |  | DPC,WALLS,COLUMN AND BEAMS, ROOF |
|  |  | AND TERRACE, AND DEFECTS CAUSED BY |
|  |  | DAMPNESS |
|  | 3RDDAY | COMPATIBILITY ASPECTS OF REPAIRS MATERIALS |
|  |  | ANTI CORROSION COATINGS, ADHESIVE |
|  |  | BONDING AIDS, REPAIRS MORTARS, |
|  |  | CURING COMPOUND, JOINTS SEALANTS, |
|  |  | PROTECTIVE COATING |
| 7THWEEK | 1STDAY | REVISION OF 4TH AND 5TH UNIT AND DOUBT WILLL BE TAKEN |
|  | 2NDDAY | PREVENTIVE MAINTENANCE CONSIDERATION AND SURFACE PREPARATION TECHNIQUE FOR REPAIRS |
|  | 3RD | CRACK REPAIRS METHOD |
|  | DAY | EPOXY INJECTION, GROOVING AND |
|  |  | SEALING,STITCHING,ADDING REINFORCEMENT |
|  |  | AND GROUTING |
| 8THWEEK | 1STDAY | REPAIRS OF SURFACE DEFECTS OF CONCRETE-BUG HOLESFORM TIE HOLES, HONEY COMB AND LARGER VOIDS-REPAIRS OF CORROSION IN RCC ELEMENTS-STEPS IN REPAIRING-PREVENTION OF CORROSION IN REINFORCEMENT |
| 2NDDAY |
| 3RDD |

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|  |  | REVISION AND ASSIGNMENT |
| 9TH WEEK | 1STDAY |
| 2NDDAY | MATERIALS PLACEMENT TECHNIQUE WITH SKETCHES-PNEUMATICALLY APPLIED, OPEN TOP PLACEMENT, BIRD MOUTH,DRY PACKING, FORM AND PUMP, TROWEL APPLIED METHOD |
| 3RDDAY | REVISION AND TEST WILL BE GIVEN |
| 10THWEEK | 1STDAY | REPAIRS OF DPC AGAINST RISING DAMPNESS-PHYSICAL METHOD, ELECTRICAL METHOD, CHEMICAL METHOD |
| 2NDDAY |
| 3RDDAY | DOUBT WILL BE TAKEN |
| 11THWEEK | 1STDAY | REPAIRS OF WALLS-REPAIRS OF MORTARS JOINTS AGAINST LEAKAGE-EFFLORESCENCE REMOVAL |
| 2NDDAY | WATER PROOFING OF WET AREAS ,WATER PROOFING OF FLAT RCC ROOFS |
| 3RDDAY | VARIOUS WATER PROOFINGSYSTEM AND THEIR CHARACTERSTITICS |
| 12THWEEK | 1STDAY | TYPES OF SEALING JOINTS WITH DIFFERENT TYPES OF SEALANTS |
| 2NDDAY | TECHNIQUE FOR REPAIRS OF JOINTS AND REPAIR OF OVERHEAD AND UNDERGROUND WATERTANKS |
| 3RDDAY | DOUBT WILL BE TAKEN |
| 13THWEEK | 1STDAY | REVISION OF 1ST UNIT |
| 2NDDAY | REVISION OF 2ND T UNIT |
| 3RDD | REVISION OF 3RD UNIT |

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| 14THWEE | 1STDAY | UNIT TEST WILL BE GIVEN |
| 2NDDAY | REVISION OF 4TH UNIT |
| 3RDDAY | REVISION OF 5TH UNIT |
| 15THWEEK | 1STDAY | REVISION OF 6TH UNIT |
| 2NDDAY | DOUBT WILL BE TAKEN |
| 3RDDAY | COMBINED TEST OF ALL UNIT |