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 | |
| 1ST  WEEK | 1ST  DAY | IMPORTANCE AND SIGNIFICANCE OF REPAIR AND MAINTENANCE OF BUILDINGS |
| 2ND  DAY | MEANING OF MAINTENANCE |
| 3RD  DAY | OBJECTIVE OF MAINTENANCE |
| 2ND  WEEK | 1ST  DAY | FACTORS INFLUENCING THE REPAIRS AND MAINTENANCE |
| 2ND  DAY | EFINITION OF DETERIORATION/DECAY |
| 3RD  DAY | FACTORS CAUSING DETERIORATION AND THEIR CLASSIFICATION |
| 3RD  WEEK | 1ST  DAY | HUMAN FACTORS CAUSING DETERIORATION, CHEMICAL FACTORS CAUSING DETERIORATION,ENVIROMENTAL CONDITION  CAUSING DETERIORATION, MISCELLANEOUS FACTORS |
| 2ND  DAY | EFFECTS OF VARIOUS AGENCIES OF DETERIORATION ON VARIOUS BUILDING MATERIALS I.E BRICKS,STONES,TIMBER,CONCRETE,PAINTS,M ETALS |
| 3RD  DAY |
| 4TH  WEEK | 1ST  DAY | DOUBT WILL BE TAKEN AND REVISION |

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|  | 2ND  DAY | SYSTEMATIC APPROACH/PROCEDURE OF INVESTIGATION |
| 3RD  DAY | SEQUENCE OF DETAILED STEPS FOR DIAGNOSIS OF BUILDING  DEFECTS/PROBLEMS |
| 5TH  WEEK | 1ST  DAY | REVISON OF 3ND UNIT |
| 2ND  DAY |
| 3RD  DAY | LIST NON DESTRUCTIVE AND OTHERS TESTS ON  STRUCTURAL ELEMENTS AND MATERIALS TO EVALUATE THE CONDITION OF THE BUILDING |
| 6TH  WEEK | 1ST  DAY | 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 |
|  | 3RD  DAY | COMPATIBILITY ASPECTS OF REPAIRS MATERIALS |
|  |  | ANTI CORROSION COATINGS, ADHESIVE |
|  |  | BONDING AIDS, REPAIRS MORTARS, |
|  |  | CURING COMPOUND, JOINTS SEALANTS, |
|  |  | PROTECTIVE COATING |
| 7TH  WEEK | 1ST  DAY | REVISION OF 4TH AND 5TH UNIT AND DOUBT WILLL BE TAKEN |
|  | 2ND  DAY | PREVENTIVE MAINTENANCE CONSIDERATION AND SURFACE PREPARATION TECHNIQUE FOR REPAIRS |
|  | 3RD | CRACK REPAIRS METHOD |
|  | DAY | EPOXY INJECTION, GROOVING AND |
|  |  | SEALING,STITCHING,ADDING REINFORCEMENT |
|  |  | AND GROUTING |
| 8TH  WEEK | 1ST  DAY | REPAIRS OF SURFACE DEFECTS OF CONCRETE  -BUG HOLES  FORM TIE HOLES, HONEY COMB AND LARGER VOIDS  -REPAIRS OF CORROSION IN RCC ELEMENTS  -STEPS IN REPAIRING  -PREVENTION OF CORROSION IN REINFORCEMENT |
| 2ND  DAY |
| 3RDD |

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

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| 14TH  WEE | 1ST  DAY | UNIT TEST WILL BE GIVEN |
| 2ND  DAY | REVISION OF 4TH UNIT |
| 3RDD  AY | REVISION OF 5TH UNIT |
| 15TH  WEEK | 1ST  DAY | REVISION OF 6TH UNIT |
| 2ND  DAY | DOUBT WILL BE TAKEN |
| 3RDD  AY | COMBINED TEST OF ALL UNIT |