LESSION PLAN

BRANCH - MECHANICAL

SUB-POWERPLANT ENGINEERING (6TH SEM) EACH DAY 5TH PERIOD

SUB CODE – MET 604 (ELECTIVE)

SUB TEACHER –ER. GOPABANDHU GHADAI(WORKSHOP SUPT.)

GOVT.POLYTECHNIC,BHUBANESWAR

THEORY – 4 PERIODS/WEEK

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| WEEK NO. | SYLLABUS TO BE COVERED | ACUALLY COVERED | SORT FALL | REASON |
| **ONE** | INTRODUCTION TO POWERPLANT(CH – 1)DESCRIPTION OF SOURCES OF ENERGYCONCEPT OF CENTRAL & CAPTIVE POWER STATIONCLASSIFICATION OF POWERPLANT | NOT TAKENNOT TAKENINTRODUCTION TO POERPLANTDESCRIPTION OF SOURCES OF ENERGY & CONCEPT OF CENTRAL & CAPTIVE POWER STATION | 1 PERIOD1 PERIODNILEXTRA 1 PERIOD | MASS ABSENT OF STUDENTSDO |
| 1.MONDAY TUESDAYWEDNESDAYTHURS DAY |
| **TWO** | INTRODUCTION TO STEAM POWERPLANT & ITS LAYOUT AND STEAM POWER CYCLES.(CH – 2)DERIVE THE FORMULA FOR THERMAL EFFICIENCY,WORKDONE,WORK RATIO & SSC WITH THE HELP OF P-V,T-S,H-S DIAGRAM OF RANKINE CYCLESOLVE SIMPLE PROBLEMS ON ABOVE QUANTITIESEXPLAIN REHEAT CYCLE & REGENETIVE CYCLE AND THEIR COMBINATION | NOT TAKENNOT TAKENNOT TAKENNOT TAKEN | 1 PERIOD1 PERIOD1 PERIOD1 PERIOD | EXAMINER DUTY FOR SKILL TEST 2017 AT ITI CUTTACKDO DOON LEAVE  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **THREE** | AIR PRE HEATER,ECONOMISERELECTRO STATIC PRESSIPITATOR & SUPER HEATER NEED OF BOILER MOUNTINGDROGHT SYSTEM,NATURAL DRAUGHT,FORCE DROUGHT,BALANCE DRAUGHT | CLASSIFICATION OF POWERPLANT & INTRODUCTION TO STEAM POWERPLANT & ITS LAYOUT AND STEAM POWER CYCLESDERIVE THE FORMULA FOR THERMAL EFFICIENCY,WORKDONE,WORK RATIO & SSC WITH THE HELP OF P-V,T-S,H-S DIAGRAM OF RANKINE CYCLENOT TAKEN | EXTRA 1 PERIODNIL1 PERIOD | GOVT. TOUR |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |

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| **FOURTH** | GOVT. HOLIDAYGOVT. HOLIDAYADVANTAGES & DISADVANTAGES OF ABOVE QUANTITIESSTEAM PRIME MOVER,ADVANTAGES & DISADVANTAGES OF STEAM TURBINE,ELEMENTS OF STEAM TURBINE. | GOVT. HOLIDAYGOVT. HOLIDAY |  |  |
| 1.MONDAY TUESDAYWEDNESDAYTHURS DAY |
| **FIFTH** | COMPONDING & GOVERNING OF STEAM TURBINE,PERFORMANCE OF STEAM TURBINE,EXPLAIN THERMAL EFFICINCY,STAGE EFFICINCY,GROSS EFFICIENCYSOLVE SIMPLE PROBLEMS ON ABOVESTEAM CONDENSER & ITS FUNCTION  |  |  |   |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **SIXTH** | EXPLAIN JET & SURFACE CONDENSER,FUNCTION OF CONDENSE AUXILLARIES SUCH AS HOT WELL,CONDENSER EXTRACTION PUMP,AIR EXTRACTION PUMPCOOLINF TOWER & CIRCULATING PUMP,TYPES OF COOLING TOWER & ITS FUNCTIONDESCRIBE THE VARIOUS TYPE OF COOLING TOWER(NATURAL DRAFT COOLING TOWER & MECHANICAL DRAFT COLING TOWER) |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **SEVENTH** | INTRODUCTION TO NUCLEAR POWERPLANT,CLASSIFICATION OF NUCLEAR FUEL.(CH – 3)FISSILE AND FERTILE MATERIAL,GOVT. HOLIDAYEXPLAIN FUSION & FISSION REACTON, |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |

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| **EIGHTH** | EXPLAIN NUCLEAR REACTOR,COMPONENTS OF NUCLEAR REACTOR,FUELMODERATOR,REFLECTOR,COOLANT,CONTROL RODSHIELDING,REACTOR VESSEL & THEIR FUNCTION |  |  |  |
| 1.MONDAY TUESDAYWEDNESDAYTHURS DAY |
| **NINETH** |  EXPLAIN THE WORKING PRINCIPLE OF PWR & BWR POWERPLANTCOMPARE THE NUCLEAR & THERMAL PLANTEXPLAIN THE DISPOSAL OF NUCLEAR WASTEGOVT. HOLIDAY |  |  |   |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **TENTH** | GOVT. HOLIDAYDIESEL ENGINE POWERPLANT(CH – 4)ADVANTAGES & DIS ADVANTAGES OF DIESEL ENGINE POWERPLANTEXPLAIN BRIEFLY DIFFERENT SYSTEMS OF DIESEL POWERPLANT |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **ELEVENTH** | ,FUEL STORAGE & FUEL SUPPLY SYSTEMFUEL INJECTION SYSTEM AIR SUPPLY SYSTEM,EXHAUST SYSTEMCOOLING SYSTEM,LUBRICATION SYSTEM |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **TWELVETH** | STARTING SYSTEM,GOVERING SYSTEMFUEL INJECTION SYSTEM AIR SUPPLY SYSTEM,EXHAUST SYSTEMCOOLING SYSTEM,LUBRICATION SYSTEM |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| **THIRTEENTH** | STARTING SYSTEM & GOVERNING SYSTEM OF DIESEL POWER PLANTCONTINUEINTRODUCTION TO HYDEL POWERPLANT(CH – 5)ADVANTAGES OF HYDEL POWERPLANT |  |  |  |
| 1.MONDAY TUESDAYWEDNESDAYTHURS DAY |
| **FOURTEENTH** |  DISADVANTAGES OF HYDEL POERPLANTCLASSIFICATION OF HYDEL POWERPLANTEXPLAIN THE GENERAL ARRANGMENT OF STORAGE TYPE HYDRO ELECTRIC PROJECTEXPLANATION OF ABOVE OPERATION |  |  |   |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |
| FIFTEENTH | REVISION OF CHAPTER 1 & DISCUSSION ON PROBABLE QUESTINSREVISION OF CHAPTER 2& DISCUSSION ON PROBABLE QUESTINSREVISION OF CHAPTER 3& DISCUSSION ON PROBABLE QUESTINSREVISION OF CHAPTER 4 & 5& DISCUSSION ON PROBABLE QUESTINS |  |  |  |
| MONDAYTUESDAYWEDNESDAYTHURSDAY |