


Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: Power Plant Operation & Control

Semester: VIII

Program: B. Tech- PSE

Time 03 hrs.

Course Code: PSEG 416

Max. Marks: 100

Instructions:

SECTION A

S. No.		Marks	CO
Q 1	In a Fluidized Bed Combustion Boiler, _____ and _____ are used along with coal/ Lignite in the Boiler furnace during the process of combustion.	5	CO1
Q 2	For unloading dry fly ash into a closed tanker, _____ is used at the bottom of Fly Ash Silo.	5	CO2
Q 3	With reference to 'Condenser Tube Maintenance', give the full form of the following: 1) CTCS 2) MIC	5	CO2
Q 4	For condenser, the thermal conductivity of Cu- tubes is _____ times that of SS tubes.	5	CO3
Q 5	Thermal Power Plants employ _____ to control Air Pollution when the coal used for combustion consists of higher % of Sulphur.	5	CO1
Q 6	There is no 'Condenser' after the Steam Turbine essentially in a Co-generation System. A) True B) False	5	CO2

SECTION B

Q 7	Enumerate at least five most important function(s) of Turbine Governing system.	10	CO3
Q 8	Enumerate at least five reasons for having effective monitoring system for (ETP).	10	CO4
Q 9	Enumerate five primary steps involved during ' Boiler Purging and Lighting Up '.	10	CO2
Q 10	Explain the method of ' Loading & Unloading of Turbine Oil to Turbine MOT '.	10	CO3
Q 11	(A) Discuss about the key Operational criteria (at least five) which determines the selection of a Generator for a Power Plant. OR (B) Discuss at least five most important characteristic of a good relay system essentially required for uninterrupted operation of a Power Plant.	10	CO3

SECTION-C

Q 12	(A) Enumerate the steps followed during 'Pre-start check' of Boiler Draft system. OR (B) Enumerate at least five essential steps taken to mitigate High Furnace Pressure Boiler Emergency condition.	20	CO4
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