A		Reg. No. :									
		Question Pa	per (Code: 9	99709)					
	B.E. /	B.Tech. DEGREE EX	AMI	NATION	N, MA	Y 20	22				
		Elect	tive								
		Mechanical I	Engine	eering							
		19UME909 - Power	Plan	t Techno	ology						
		(Regulatio	ons 20	19)							
Dur	ration: Three hours		Maximum: 100 Marks								
		Answer ALI	Que	stions							
		PART A - (10 x	1 = 1	0 Marks	5)						
1.	Economizer is used to heat									CO	1- I
	(a) Feed water	(b)Air	(c)Flue g	ages		(d)all	the a	ibove	2
2.	Surge tank is for the protection of									CO	1-1
	(a) Dam	(b) Spillways	(c)	Penstoc	k	(d	l)He	ead r	ace		
3.	The equipment installed in power plants to reduce air CO1-U pollution due to smoke is										
	(a) Induced draft fans			(b) De-super heaters							
	(c) Electrostatic precipitators			(d) Re-heaters.							
4.	A condenser in a combing out of	thermal power plan	t con	denses	steam					CO	1-1
	(a) Boiler	(b) Super-heater	(c) Econo	mizer		(d) Tu	rbine	ð.	
5.	Minimum quantity of fuel is required									CO	1-1
	(a) Thermal power plant		(b) Nuclear power plant								
	(c)Hydroelectric power plant		(d) Diesel power plant								
6.	In nuclear power stations which nuclear reaction is performed?						CO	1-1			
	(a) Nuclear fission		(b) Nuclear fusion								
	(c) 90% fission and	10% fusion	(d) 90% fusion and 10% fission								

7.	The diesel plants are mainly used as O								
	(a) Pe	eak load plants	(b)Base load plants						
	(c)Sta	andby power plants	(d) None of these						
8.		In the heat transfer takes place between the exhaust CO1- U gases and cool air							
	(a) In	tercooler (b) Re-heater	(c) Regenerator	(d) C	Compressor				
9.	Photo	voltaic solar energy conversion sys	tem makes use of		C	01 - U			
	(a) fuel cell (b) solar cell (c) solar pond (d) None of the					ne above.			
10.	Solar cells are made of CC								
	(a) si	licon (b) germanium	n (b) germanium (c)silver (d) aluminium.						
		PART - B (5 z	x 2= 10 Marks)						
11.	Classify the types of ash handling system?								
12.	Classify about Mechanical Stokers? CC								
13.	Explain about Nuclear Fusion CO1- U								
14.	Describe the effect of inter cooling in a gas turbine plant. CO1- U								
15.	Explain demand factor. CO								
		PART - C (5 x 16= 80 Marks)						
16.	(a)	Explain the layout of Steam powe disadvantages, application.	r plant and their adva	antages,	CO1- U	(16)			
	(b)	Or Explain with line diagram of c power plant	oal preparation in	thermal	CO1- U	(16)			
17.	(a)	Describe the different types of ovi its merits and demerits of each ove Or		discuss	CO1- U	(16)			
	(b)	What is ESP? Explain with a advantages and disadvantages of H		rite the	CO1- U	(16)			
18.	(a)	Explain the Construction and wor with a layout. Or	king of nuclear pow	er plant	CO1- U	(16)			
	(b)	Explain the working of boiling sketch	water reactor with	a neat	CO1- U	(16)			

19. (a) How do you select engine for a diesel power plant? Draw a CO1-U (16) diesel power plant and explain its major components

Or

- (b) Explain with a neat sketch of various arrangements of gas CO1-U (16) turbine power plant layouts.
- 20. (a) Explain the principle, construction and working of a wind CO1-U (16) power plant and List out the advantages and disadvantages

Or

(b) Explain the pollution control technologies including waste CO1-U (16) disposal options for nuclear power plant.