

These are sample MCQs to indicate pattern, may or may not appear in examination

University of Mumbai

Online Examination 2020

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2012

Examination: Final Year Semester VII

Course Code: MEE7012 and Course Name: Power plant engineering

Time: 1hour

Max. Marks: 50

Note to the students:- All the Questions carry equal marks .

Q	For maximum hydraulic velocity, the wheel velocity is _____ the jet velocity for Pelton Wheel Turbine				
A	double of				
B	same of				
C	half of				
D	one fourth of				
Q	Jet condensers are _____ type of heat exchangers				
A	Shell and Tube				
B	Concentric Tubes				
C	Indirect contact				
D	Direct contact				
Q	Surge tanks are used for _____ plants where water is taken to the power house through tunnels or penstock.				
A	low head				
B	high head				
C	medium head				
D	low power				

Q	In a steam power plant the capital cost of power generation equipment is Rs. 25×10^5 . The useful life of the plant is 30 years and salvage value of the plant to Rs. 1×10^5 . Determine by sinking fund method the amount to be saved annually for replacement if the rate of annual compound interest is 6%.				
A	54000 Rs				
B	67000 Rs				
C	134254 Rs				
D	24000 Rs				
Q	The _____ is a plot of accumulated flow against time.				
A	hydrograph				
B	mass curve				
C	secondary curve				
D	primary curve				
Q	Base load plants are required to supply _____ power to grid				
A	in no demand				
B	in high demand				
C	constant				
D	discrete				
Q	National Thermal Power Corporation was incorporated in _____				
A	November - 1974				
B	November - 1975				
C	November - 1976				
D	November - 1977				
Q	A CANDU reactor uses _____.				
A	Highly enriched uranium as fuel and light water as moderator and coolant.				
B	Natural uranium as fuel and heavy water as moderator and coolant.				
C	Enriched uranium as fuel and ordinary water as moderator and coolant.				
D	Only fertile material				

Q	REC stands for _____ Electrification Corporation.				
A	Regenerated				
B	Reheating				
C	Rural				
D	Rapid				
Q	In which Tariffs Method Charging is depend on only on amount of total energy consumed				
A	Flat Demand rate Method				
B	Straight line meter rate method				
C	Block meter rate Method				
D	Hopkinson's Demand rate method				
Q	coal fired steam power plant can not be used as				
A	Base load plant				
B	peak load plant				
C	combined cycle plant with gas fired plant				
D	FBC furnace operated plant				
Q	combine cycle power plant is always				
A	less economical then gas turbine				
B	more economical then gas turbine				
C	less efficient then gas turbine cycle alone				
D	less efficient then steam turbine cycle alone				
Q	Incremental rate is equal to				
A	Input/Output				
B	output/input				
C	Additional input/Additional output				
D	Additional output/Additional input				
Q	Which type of ash handling system has least power consumption				
A	Pneumatic				
B	Hydraulic				
C	Mechanical				
D	Steam Jet type				

Q	What happens when a neutron is absorbed by a nucleus of an atom of URANIUM?				
A	Mass number of atom increases				
B	One electron is let out				
C	URANIUM isotope is formed				
D	Nucleus becomes unstable				
Q	In case of coal preparation following equipments are used a- Sizers , b- driers, c- Crushers, d- Magnetic seperators. What is correct sequence in actual use				
A	c a b d				
B	a b c d				
C	b a c d				
D	d a b c				
Q	In which of the following process are Neutrons emitted?				
A	Inverse beta Decay				
B	Nuclear fission				
C	Spontaneous Fission				
D	Nuclear fusion				
Q	In case of ash handelling system initial step is				
A	slow cooling of Dumped ash				
B	Washing of ash content				
C	supply of hot air in ash deposited				
D	Quenching of ash deposoted				
Q	For combined cycle power plant fule supplied in combustion chamber I and II is 9.8 kg/s and 6.8 kg/s. calorific value of fuel is 45000 kJ/kg. work produced by gas turbine cycle is 106 MW & Steam turbine cycle is 177 MW. if compressor work is 151.6 MW total positive work produced by gas turbine will be				
A	245MW				
B	257.6 MW				
C	201MW				

D	198 MW				
Q	Pulverized coal is stored in				
A	Stocking in heaps				
B	Underwater storage				
C	Bunkers				
D	big tunnels				
	What is the major problem in nuclear plants? What is the major problem in nuclear plants?				
Q	Drawing out energy				
A	Fusion of particles				
B	Disposal of nuclear waste				
C	Handling of fuel				
D	For constant pressure gas turbine cycle work ratio _____ with increase in turbine inlet temperature				
Q	increase				
A	decrease three times				
B	decreases twice				
C	Remains same				
D	If overall efficiency of gas turbine pp is 47 % and total work produced is 200 MW. Amount of fule used of calorific value 42000KJ/Kg will be				
Q	4.85 Kg/s				
A	5.31 KJ/s				
B	10.16Kg/s				
C	25.23 Kg/s				
D	Power generation of Hydraulic Power Plant is depend on availability of				
Q	population				
A	land				
B	water				
C	highly skilled workers				
D	Which type of load transfer equipemnts has lesser power consumption				
Q					

A	Screw conveyor				
B	Bucket elevator				
C	Skipe elevator				
D	Belt conveyor				