

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

University of Mumbai

Online Examination 2020

Program: BE Automobile Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: AEC604 and Course Name: Thermal and Fluid Power Engineering

Time: 1hour

Max. Marks: 50

Q. No.	Question	Options			
		A	B	C	D
1	In fire tube boilers, pressure is limited to	20 bar	50 bar	100 bar	200 bar
2	Fire tube boilers are those in which	flue gases pass through tubes and water	water passes through the tubes and	Both passes through the tubes	Both are surrounds the tube
3	The fusible plug in boiler is located	At the chimney	Over the combustion	In the fire tubes	Above steam dome
4	The function of a _____ is to remove the entrained water particles from the steam conveyed to turbine.	Steam separator	Economizer	Super heater	Injector
5	The economizer is used in boilers to	increase thermal efficiency of boiler	decrease thermal efficiency of boiler	for saftey of boiler	increase fue gas temperature
6	The parson's reaction turbine has.....	Identical moving and fixed blades	Only moving blades	Only fixed blades	Fixed and moving blades of different
7	When the degree of reaction is zero in Reaction turbine then there is.....	No heat drop in the moving	No heat drop in the fixed	Maximum heat drop in the	Maximum heat drop in

8	In velocity compounding, steam is passed through	moving blades- fixed nozzles- fixed blades- moving blades	fixed nozzle- moving blades-fixed nozzles-	fixed nozzle- moving blades- fixed blades- moving blades	fixed blades- moving blades- fixed nozzles- moving blades
9	For a Parson's reaction turbine, if α_1 and α_2 are fixed blade angles at inlet and exit respectively and β_1 and β_2 are the moving blade angles at entrance and exit	$\alpha_1 = \alpha_2$ and $\beta_1 = \beta_2$	$\alpha_1 < \beta_1$ and $\alpha_2 > \beta_2$	$\alpha_1 = \beta_1$ and $\alpha_2 = \beta_2$	$\alpha_1 = \beta_2$ and $\beta_1 = \alpha_2$
10	A turbine is called reaction turbine if at the inlet of the turbine the total energy is	kinetic energy only	kinetic energy and pressure	pressure energy only	heat energy
11	Francis turbine is	an impulse turbine	a radial flow impulse	an axial flow turbine	a reaction radial flow
12	If the head on the turbine is more than 300 m, the type of turbine used should be	Kaplan	Francis	Pelton	Propeller
13	In a reaction turbine, function of a draft tube is to	provide safety to turbine	prevent air from entering	reconvert K. E. to flow energy	increase the rate of flow
14	If a jet of water is discharging under a head of 10 m and coefficient of velocity is 0.90, the actual velocity of jet is, ($g = 10$)	12.73 m/s	10.7 m/s	15 m/s	20 m/s
15	Pelton wheel is used in those place where	high head and low discharge are available	low head and high discharge are	high head and high discharge are available	for any head and discharge
16	The purpose of governing in steam turbines is to	maintain Constant speed	Reduce the effective heat	Reheat the steam and	Completely balance
17	Which type of turbine should be selected for operating head from 50 to 400 m	Kaplan turbine	Francis turbine	pelton turbine	impulse turbine
18	In gas turbine compressor is coupled with	combustion chamber	Heat exchanger	turbine	combustion chamber and heat
19	Which component of gas turbine power plant is main cause of its low efficiency	Gas turbine	combustion chamber	compressor	starting motor

20	The percentage of total energy input appearing as net work output of the cycle	Thermal efficiency	combustion efficiency	engine efficiency	compression efficiency
21	There is a continuous air flow	turbo jet	flying bomb	liquid	solid
22	Air stream jet engines are termed as_____.	turbo-prop only	turbo-jet only	pulse-jet only	turbo-jet,turbo-prop
23	In turbo-prop system, the expansion of gases takes place partly in	30%	60%	80%	20%
24	For a jet propulsion unit, ideally the compressor work and turbine work	not related to each other	unpredictable	not equal	equal
25	Jet propulsion takes oxigen from_____.	atmosphere	propelling body	from atmosphere &	fuel tank only