EME MCQ QUESTION BANK

1.	Work is considered positive when a) Work is done on the system c) both a and b	b) work is done by the system d) none of the above	
2.	A source of energy is known as renewable source a) Fossil fuel c) CNG	e b) Solar d) All of the above	
3.	When driving and driven shafts are at comparatively short distance apart & higher efficiency required, the type of drive suitable is:		
	a) Gear drive	b) Belt drive	
	c) friction drive	d) chain drive	
4.	The clutch ordinarily remains in disengaged condition when it is used for power transmission in:		
	a) Automobile	b) Machine tools	
	c) Crane	d) Elevator	
5.	Which of the following type of centrifugal pump converts kinetic energy of pump into pressure energy:		
	a) Foot valve	b) Casing	
	c) Suction pipe	d) Impeller	
6.	For earth moving machines, widely used engines are:		
	a) Petrol engine	b) Steam engine	
	c) Diesel engine	d) Gas engine	
7.	The correct location of economizer is:		
	a) Between furnace and preheater	b) between airpreheater and chimney	
	c) between forced draft fan and furnace	d) near the superheater	
8.	COMPRESSOR is a machine which is used to d	0	
	a) lift liquid from low height to higher elevation	b) To store liquid	
	c) To compress gas.	d) none of the above	
9.	Which of the following energy is converted into electricity in a Hydo power plant		
	a) Nuclear energy	b) Potential Energy of water	
	c) Thermal Energy	d) all of the above	
10	. Which of the following is a unit of Power.		
	a) Joules	b) Watt	
	c) Meter	d) kilogram	

11.	a) Vernier calliper	b) Manometer
	c) Thermometer	d) none of the above
	-,	
12.	In a simple gear train having two gears, if driving direction then driven gear rotates in a) Clockwise direction	ng gear rotates in clockwise b) Anti clockwise direction
	c) Depend on size of gear	d) depend on no. of teeth
13.	In a IC engine from which of the following sour mechanical energy a) Chemical energy of fuel. c) kinetic energy	b) potential energy d) All of the above
14.	Which of the following instrument is used for dr a) T- Square c) Protractor	awing curved lines b) French curves d) Compass
15.	The function of ozone layer is a) protects the earth from harmful effect of u b) increase the temperature of earth c) increases CO ₂ in atmosphere d) none of the above	ltraviolet rays
16.	In the Polytropic Process $PV^n = C$, if $n = 0$, the a) isochoric c) isothermal	process is called b) isobaric d) adiabatic
17.	Saturation temperature of steam increase a) With decrease in pressure c) is unaffected by pressure	b) with increase in pressure d) none of the above
18.	During adiabatic process a) heat transfer is zero c) enthalpy remains constant	b) work transfer is zero d) enthalpy change is zero.
19.	The processes of Carnot cycle are a) Two adiabatic and two constant volume b) Two constant pressure and two constant volume c) Two isothermal and two adiabatic d) Two isothermal and two isentropic	me
20.	The air standard cycle on which the petrol engin a) Otto cycle c) Joule cycle	ne work is b) Carnot cycle d) Dual cycle
21.	Pump is a machine which is used to do	
-•	a) lift liquid from low height to higher elevati	on b) To store liquid
	c) To compress liquid	d) none of the above

22.	Which of the following is a unit of Electric current		
	a) Ampere	b) Volt	
	c) Meter	d) kilogram	
	Which of the following instrument is used to measure length		
	a) Vernier calliper	b) Manometer	
	c) Thermometer	d) none of the above	
24.	$1 \text{ kg/cm}^2 = \dots$ bar		
	a) 0.981	b) 98.1	
	c) 9.81	d) 981	
	The specific heat at constant pressure(C _p) of an	_	
	a) Equal to its specific heat at constant pressureb) C < C	2	
	b) $C_p < C_v$		
	c) $C_p > Cv$ d) $C_p = 2 C_v$		
26.	The process of sublimation is found to occur in		
	a) Liquid N ₂	b) Solid CO ₂	
	c) Solid O ₂	d) Air	
	If x1 and x2 are the dryness fractions obtained in separating calorimeter and throttling calorimeter respectively, then actual dryness fraction of steam is		
	a) X1- X2	b) $X1 + X2 / 2$	
	c) $X1 + X2$	d) X1 * X2	
	A device which is used for remove the impurities from the boiler is called		
	a) Economizer	b) Feed pump	
	c) Injector	d) Blow off cock	
	Which part used in I.C.Engine to convert reciprocating motion of piston to rotary motion of output shaft		
	a) Connecting road	b) Crank shaft	
	c) Cam shaft	d) Gudgeon pin	
30.	Which are of the following is not a rotary pump?		
	a) Gear pump	b) Vane pump	
	c) Screw pump	d) Axial pump	
	Which one of the externally fired boiler.		
	a) Babcock and Wilcox	b) Lancashire	
	c) Cochran	d) All of the above	
	The chemical formula of R-12 is	L) CCIE	
	a) CCl ₂ F	b) CCIF ₃	
	c) CCl ₂ F ₂	d) CHClF ₂	

33.	Which types of coupling used to connecting shafts, whose axis are parallel but not in one line?		
	a) muff coupling.	b) flexible coupling	
	c) Oldham's coupling	d) flange coupling	
34.	Compressor in which compression of air from s more than one cylinder is calledcompr	auction pressure to delivery pressure takes place in ressor.	
	a) Single acting	b) Double acting	
	c) Single stage	d) Multi stage	
35.	The ability of a material to resist fracture due to	high impact loads is called	
	a) strength	b) stiffness	
	c) toughness	d) brittleness	
36.	Which property is called Intensive property?		
	a) Kinetic energy	b) viscosity	
	c) Internal energy	d) magnetization	
	c) memarenergy	u) mugnetization	
37.	In S.I. unit for the force is.	I NAT	
	a) Kgm	b) Newton	
	c) Kgf	d) Lb	
38.	The product of mass and acceleration due to gra	wity of the body is called.	
	a) Pressure	b) Force	
	c) Weight	d) None of this	
39	The unit for pressure in S.I. units is		
57.	a) Kg/cm ²	b) Pascal	
	c) 1 b/in ²	d) None of this	
	C) 1 0/111	d) None of this	
40.	Specific heat is defined as the amount of heat re	equired	
	a) To raise unit of temp of a substanceb) To raise unit mass of substance through unit mass of substance through unit mass of substance	nit degree of temperature	
	c) To raise unit mass of substance through 100 (
	d) None of this		
11	A system in which there is no transfer of mass a	sources its houndaries is called	
41.	•		
	a) Closed system	b) Open system	
	c) Isolated system	d) None of this	
42.	Natural fuel is		
	a) That occur in nature	b) Prepared fuel	
	c) Known as secondary fuel	d) None of the above	
43	Petroleum is		
	a) Solid fuel	b) Secondary fuel	
	c) Liquid fuel	d) None of this	
	c) Liquid Idei	a) Hone of this	

44.	Wood is a) A fuel known as brown coal c) Shining black	b) Easily available natural fueld) None of this
45.	Water gas is a) Mixture of hydrogen and carbon monoxid c) Used in heating ovens	e b) It mainly consist of CH ₄ d) None from above
46.	Function of piston rings is a) To connect piston and connecting road b) To transmit force from piston to crank c) To maintain a gas tight between the piston d) To convert reciprocating motion into rotary r	•
47.	In a two stroke cycle engine, one cycle is come the crank shaft a) 2 c) 1	apleted in the following number of revolutions of b) 3 d) 4
48.	The clearance volume in a compressor is provided a) To increase volumetric efficiency b) to reduce the work input c) So that piston does no strike the cylinder had) To accommodate valves in the cylinder	
49.	In multi stage compression as compared to sing a) more c) Constant	le stage compression the volumetric efficiency is b) less d) None of the above
50.	Air vessel is used in a) Centrifugal Pump c) Vane pump	b) Gear pumpd) Single acting Reciprocating.

EME BRIDGE COURSE

- 1. The unit Nm/s is called
 - a) Joule(J)

b) Watt(W)

c) Calorie(C)

- d) None of this
- 2. The statement that when any two bodies are in thermal equilibrium with third, they are also in thermal equilibrium with each other is
 - a) First law of thermodynamic

- b) Zeroth law of thermodynamic
- c) Second law of thermodynamic
- d) None of this
- 3. For a reversible process, the change in entropy(d) is given by
 - a) dQ/T # d
- c) dQ/T = 0

- $\mathbf{b)} \ \mathbf{dQ/T} < \mathbf{0}$
- d) none of the above.

- 4. CNG is an excellent for
 - a) petrol engine

b) Diesel engine

c) Kerosene engine

- d) All of above
- 5. Main disadvantage of nuclear energy is
 - a) High operating cost

b) Waste disposal

c) Low efficiency

- d) All of above
- 6. An isothermal process is governed by
 - a) Boyle's law
 - c) Gay-Lussac law

- b) Charles' law
- d) Avogadro's law
- 7. The sum of internal energy (U) and the product of pressure and volume (p.v) is known as
 - a) work done

b) entropy

c) enthalpy

- d) none of these
- 8. Dryness fraction of wet steam is
 - a) greater than 1

b) = 1

c) less than 1

- d) 0
- 9. Efficiency of rankine cycle is given by
 - a) $\frac{h_{1-h_3}}{h_{1-h_4}}$

b)

c) $\frac{h_{1-h_4}}{h_{1-h_2}}$

 $d)\,\frac{h_{1-h_{3}}}{h_{1-h_{2}}}$

- 10. In diesel cycle, heat is added at
 - a) constant temperature
 - c) constant enthalpy

- b) constant volume
- d) constant pressure
- 11. Which of the following set is of basic quantities?
 - a) Mass, force, time

- b). Time, electric current, velocity
- c) Distance, density, temperature
- d) Distance, time, temperature

12.	which of the following is true conversion for uni a) 1 bar = 10 ⁵ Pa c) 1 Pa = 10 ⁵ bar	t of pressure? b) 1 bar = 1 Pa d) None of these
13	Which one is larger unit of mass?	d) None of these
13.	a) Kilogram c) Gram	b) Pound d) Milligram
14.	Which of the following is not a unit of distance? a) Light year c) Angstrom	b) Mile d) Carat
15.	What is the dimension of power? a) MLT ⁻³ c) ML ² T ⁻²	b) MLT⁻² d) ML2T ⁻³
16.	1 inch is equals to how many centimeters? a) 2.5 c) 2.46	b) 2.54 d) 2.58
17.	What is the unit of luminous intensity is SI unit s a) Angstrom c) Mol	ystem? b) Carat d) Candela
18.	Which of the following instrument is used to mea a) Manometer c) Thermocouple	asure temperature? b) Rotameter d) Pitot tube
19.	Which of the following instrument is used for me a) Tachometer c) Anemometer	easure speed / velocity? b) Pitot Tube d) All Of Above
20.	Which of the following set of instruments are use a) Manometer, pressure gauge c) Manometer, rotameter	ed to measure pressure? b) Rotameter, pressure gauge d) None of above
21.	Which of the following conversion is true? a) 1 litre = 10^3 m ³ c) 1 litre = 10^{-3} m ³	b) 1 litre = 10^2 m ³ d) 1 litre = 10^{-2} m ³
22.	Which application is not perform by Vernier calip a) Measuring diameter c) Measuring depth	per? b) Measuring height d) None of above
23.	In Following which is the power producing device a) Pump c) Compressor	b) I.C. Engine d) Air Conditioner

24.	The strainer is used in all types of pumps for a) Filtering the liquids to be sucked c) To protect pump, foreign material passes through the pump.	b) Both (a) and (c) d) None of this
25.	The moving part of a centrifugal pump is called a a) Impeller c) Diffuser	b) Volute d) Suction nozzle
26.	Which of the following is boiler accessory? a) Economizer c) Safety Valve	b) Feed check valved) Water level indicator
27.	The function of boiler is a) To compressed steam c) To generate steam at a desired pressure	b) To heat feed waterd) To blow out hot gases.
28.	The cam shaft speed of four stroke engine is a) Double than crank shaft speed c) Four times of crank shaft speed	b) Equal to crank shaft speedd) Half of crank shaft speed
29.	During suction stroke in a diesel engine, it draws a) Vapour of petrol only c) Mixture of petrol and air	in b) Air only d) Only air
30.	The compression ratio for the diesel engine is appa; 5:1 to 10:1 c) 12:1 to 15:1	proximately in the following range b) 11:1 to 20:1 d) 10:1 to 12:1
31.	The following is the one of the characteristics of a) Large in size c) Starting is difficult	I.C. engineb) Cheaper fuel may be usedd) More efficient
32.	Which one is link between piston and crank a) Connecting rod c) Piston pin	b) Push rod d) Crank shaft
33.	A unit consists of closed vessel, economizer, sup producing steam as per requirement called a) Boiler c) Power plant	b) Steam generatord) I.C. engine
34.	Cochran boiler is a) Vertical boiler c) Natural circulation boiler	b) Fire tube boilerd) All of above
35.	The function of steam stop valve is a) To regulate flow of steam from boiler to steam pipe c) To separate steam from water	b) To collect steam from drumd) To provide safety of boiler

36.	Which of the following is a not power transmission element? a) Belt b) Chain		
	c) Rope	d) Brake	
37.	When the driving and driven shafts are at compardrive suitably used is	ratively larger distance apart, the type of	
	a) Gear Drive	b) Friction Drive	
	c) Belt Drive	d) Chain Drive	
38.	Which of the following type of belts is also known as positive drive belt?		
	a) V-belt	b) Timing belt	
	c) Flat belt	d) Wedge type belt	
39.	Which of the following is application of Belt dri	ve	
	a) Bicycle	b) Flour mill	
	c) Bus	d) All above	
	C) Bus	d) All above	
40.	Which of the following type of drives transmit power by friction?		
	a) Spur gear drive	b) Worm gear drive	
	c) Chain drive	d) Belt drive	
41.	When the axes of two shafts are parallel, use		
	a) Crossed helical gears	b) Worm gears	
	c) Bevel	d) Spur or helical gears	
42.	A device which is used for pumping the water in	boiler is	
	a) Feed check valve	b) Injector	
	c) Economiser	d) Feed Pump	
43.	Which of the following is application of Rope da	rive	
	a) Motor cycle	b) Bicycle	
	c) Car	d) Crane	
11	The thickness of gear tooth is measured		
77.	a) Along the pitch circle	b) Along the addendum circle	
	c) Along the base circle	d)Along the root circle	
	c) Mong the base effect	u // tiong the root effect	
45.	Reducing pressure angle on gears results in		
	a) Weaker teeth	b) High velocity ratio	
	c) Stronger teeth	d) High efficiency	
46.	With increase in gravitational force, mass of substance will		
	a) Increase	b) Remain constant	
	c) Decrease	d) May increase or decrease	
47.	During compression process which parameter wi	ll change?	
•	a) Pressure	b) Density	
	c) Volume	d) All of above	
	-,	, 0- 	

48. The Steam generate in case	The Steam generate in case of water tube boiler as compared to fire tube boiler is	
a) Same	b) More	
c) less	d) None of above	

- 49. The main function of an automobile gearbox is
 - a) To reduce speed

b) To provide variable speeds

c) To increase speed

- d) To increase power
- 50. When the circulation of water, in a boiler, is by a centrifugal pump, then the boiler is known as
 - a) internally fired boiler

b) externally fired boiler

c) natural circulation boiler

d) forced circulation boiler