

FE/F.Y.B.Tech. (All Branches) (Part-I) (Sem-I&II) Oct./Nov. 2021 Examination
BASIC MECHANICAL ENGINEERING (CBCS)
Sub. Code: 72510/71820/59942

Day and Date: Friday, 25-03-2022

Total Marks: 50

Time: 02.00 pm to 03.00 pm

Answer Key

		Correct Option	
Q. 1)	In an open system _____	<input type="text" value="B"/>	
	A) Mass of the system remains same		B) Mass and energy transfer takes place across the boundary
	C) Only mass transfer take place across the boundary		D) Only energy transfer take place across the boundary
Q. 2)	In an isolated system _____	<input type="text" value="A"/>	
	A) Mass and energy does not crosses the boundary of the system		B) Mass and energy transfer takes place across the boundary
	C) Only mass transfer across the boundary		D) Only energy transfer across the boundary
Q.3)	A system comprising a single phase is called as _____	<input type="text" value="D"/>	
	A) Closed System		B) Open System
	C) Isolated System		D) Homogeneous System
Q. 4)	Clausius and Kelvin Planks refers to _____	<input type="text" value="B"/>	
	A) First law of Thermodynamics		B) Second law of Thermodynamics
	C) Third law of Thermodynamics		D) Zeroth law of Thermodynamics
Q. 5)	Choose the correct applicable option for steady flow system	<input type="text" value="A"/>	
	A) Mass entering and leaving the system is same		B) Mass does not enter and leave the system
	C) Mass entering the system is more than mass leaving the system		D) None of above
Q. 6)	In two stroke engine, the Suction, Compression, Expansion and Exhaust strokes are completed in _____ revolutions of crank shaft	<input type="text" value="A"/>	

	A) One	B) Two	
	C) Three	D) Four	
Q. 7)	In four stroke S.I. engine, during suction stroke		
	A) Only air is sucked in	B) Only petrol is sucked in	C
	C) Mixture of air & petrol sucked in	D) None of the above	
Q. 8)	The thermal efficiency of petrol engine as compared to diesel engine is		
	A) Lower	B) Higher	A
	C) Same for same power output	D) Same for same speed	
Q. 9)	The compression ratio of the Diesel engine is in the range of _____		
	A) 8-10	B) 10-15	C
	C) 14-20	D) None of the above	
Q. 10)	Cooling of or removal of heat from system is called as _____		
	A) Refrigeration	B) Air Conditioning	A
	C) Space heating	D) All above	
Q. 11)	Heat is rejected by the refrigerant in vapour compression refrigeration system in _____		
	A) Evaporator	B) Throttling Valve	C
	C) Condenser	D) Compressor	
Q. 12)	The temperature of air measured by ordinary thermometer when placed in air is called _____		
	A) Dry bulb temperature	B) Wet bulb temperature	A
	C) Dew point temperature	D) Adiabatic saturation temperature	
Q. 13)	Choose the correct statement		
	A) Dew point temperature can be measured with thermometer	B) Dew point temperature is the saturation temperature corresponding to partial pressure of water vapour in moist air	B
	C) Dew point temperature is same as thermodynamic wet bulb temperature	D) Dew point temperature is same as thermodynamic wet bulb temperature for saturated air	
Q. 14)	_____ sources of Energy are being used from many decades		
	A) Conventional energy	B) Non-conventional energy	A
	C) Primary energy	D) Fuel cells	

Q. 15)	_____ is used as working fluid in steam power plant		A
	A) Steam	B) Oxygen	
	C) Mercury	D) Water	
Q. 16)	Sources of biogas are		D
	A) Any organic waste	B) Sewage	
	C) Cattle dung and animal waste	D) All above	
Q. 17)	_____ part of flat plate collector is coated with black colour		A
	A) Absorber plate	B) Water tubes	
	C) Transparent cover	D) Insulation	
Q. 18)	The suitable material for belt in agricultural machinery is		B
	A) Leather	B) Rubber	
	C) Cotton duck	D) Balata gum	
Q. 19)	Following type of chain is used in motorcycle		A
	A) Roller	B) Silent	
	C) Link	D) None of the above	
Q. 20)	As compared to belt drive, the chain drive transmits		A
	A) More power	B) Less power	
	C) Same power	D) None of the above	
Q. 21)	When the axes of two shafts are perpendicular and intersecting, use		B
	A) Spur gears	B) Bevel gears	
	C) Worm gears	D) Helical gears	
Q. 22)	Lathe machines are basically used for _____		A
	A) Metal Removing	B) Metal joining	
	C) Casting	D) None of above	
Q. 23)	Why metal removal process is costly?		C
	A) More energy is required	B) Some of the material is wasted	
	C) both a) and b)	D) None of the mentioned	
Q. 24)	----- form of metal is used in casting process		A
	A) Liquid	B) Solid	
	C) Gas	D) Plastic	

Q. 25	For ARC Welding		C
	A) AC with High frequency is used	B) AC with low frequency is used	
	C) DC is used	D) All above	