

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

(Institute of Petrochemical Engineering)

Department of Petrochemical Engineering

Subject: Elective -2(Renewable Energy Technologies)

Semester: - VI

SUBJECT CODE: DPC 3205C

Id	1
Question	Which of the following is a non-renewable resource?
A	Coal
B	Forests
C	Water
D	Wildlife
Answer	
Marks	2
Unit	1

Id	2
Question	Which among the following is not a renewable source of energy?
A	Solar energy
B	Coal
C	Hydro-power
D	Geothermal energy
Answer	
Marks	2
Unit	1

Id	3
Question	Identify the renewable energy resource from the following
A	Coal
B	Petroleum
C	Wind power
D	wax
Answer	
Marks	2
Unit	1

Id	4
Question	Which of the following is a disadvantage of most of the renewable energy sources?
A	Highly polluting
B	High waste disposal cost
C	Unreliable supply
D	High running cost
Answer	
Marks	2
Unit	1

Id	5
Question	Photovoltaic energy is the conversion of sunlight into
A	wind energy
B	Biogas
C	Electricity
D	Geothermal energy
Answer	
Marks	2
Unit	1

Id	6
Question	Horizontal axis and vertical axis are the types of
A	Nuclear reactor
B	Wind mills
C	Biogas reactor
D	Solar cell
Answer	
Marks	2
Unit	3

Id	7
Question	Which among the following is not an adverse environmental impact of tidal power generation?
A	Interference with spawning and migration of fish
B	Pollution and health hazard in the estuary due to blockage of flow of polluted water into the sea
C	Navigational hazard
D	None of the above
Answer	
Marks	2
Unit	3

Id	8
Question	Steam reforming is currently the least expensive method of producing
A	Coal
B	Biogas
C	Hydrogen
D	Natural gas
Answer	
Marks	2
Unit	1

Id	9
Question	A fuel cell, in order to produce electricity, burns
A	Coal
B	Biogas
C	Hydrogen
D	Natural gas
Answer	
Marks	2
Unit	1

Id	10
Question	Fuel cells are
A	Carbon cell
B	Hydrogen battery
C	Nuclear cell
D	Chromium cell
Answer	
Marks	2
Unit	1

Id	11
Question	Capacity to do work is called energy
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	12
Question	Unit of energy is Joule
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	13
Question	The energy of an object in motion called as kinetic energy
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	14
Question	The energy possessed by the body as a result of its position in gravitational field is called potential energy
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	15
Question	Energy produced by combustion of substance is called as heat energy
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	16
Question	when large atoms are split into smaller atoms it is called fission.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	17
Question	Relation between energy and mass is given by the equation $E=mc^2$
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	18
Question	Estimated potential of wind energy in India is 45195 MW
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	19
Question	Estimated potential of Biomass energy in India is 16881 MW .
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	20
Question	Estimated potential of small hydro power energy in India is 15000 MW
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	21
Question	The main source of commercial energy is mostly comes from coal and petroleum.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	22	
Question	Fuels are available in solid ,liquid and gaseous form	
A	True	
B	False	
C		
D		
Answer		
Marks	2	
Unit	1	

Id	23
Question	Fuels can be classified as primary and secondary fuels.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	24
Question	lignite, anthracite are the types of coal.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	25
Question	Wood charcoal is obtained by destructive distillation of wood.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	26
Question	Petroleum is originated from organic matter by bacterial action.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	27
Question	Briquettes are prepared by compressing material under high pressure
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	28
Question	Two light nuclei combine to form a single heavier one is called
A	Fusion
B	Fission
C	Splitting
D	Separation
Answer	
Marks	2
Unit	1

Id	29
Question	Gas found in wells or association with crude oil is called
A	Natural gas
B	Producer gas
C	Wet gas
D	Dry gas
Answer	
Marks	2
Unit	1

Id	30
Question	-----is responsible for transportation and marketing natural gas in India .
A	GAIL
B	BPCL
C	BHEL
D	HPCL
Answer	
Marks	2
Unit	1

Id	31
Question	India is having abundant reserves of thorium
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	32
Question	Organic matter is converted to alcohol by the process called -----
A	Fermentation
B	Oxidation
C	Reduction
D	cracking
Answer	
Marks	2
Unit	1

Id	33
Question	In fuel cell hydrogen and oxygen reacts to produce
A	Water and electricity
B	Carbon
C	CO ₂
D	CO
Answer	
Marks	2
Unit	1

Id	34
Question	----- is blended in gasoline.
A	Ethanol
B	water
C	Carbon
D	CO ₂
Answer	
Marks	2
Unit	1

Id	35
Question	Acid rain is caused by-----
A	Air pollution
B	Water pollution
C	Land pollution
D	Noise pollution
Answer	
Marks	2
Unit	1

Id	36
Question	Which of following undergoes fission reaction easily
A	U-235
B	U-233
C	U-238
D	None of above
Answer	
Marks	2
Unit	1

Id	37
Question	Percentage of U-238 in natural uranium is around
A	99.29
B	0.71
C	0.015
D	30
Answer	
Marks	2
Unit	1

Id	38
Question	Number of secondary neutrons emitted on fission of an atom of U-235 is
A	3
B	300
C	30
D	13
Answer	
Marks	2
Unit	1

Id	39
Question	Plutonium is not naturally occurring nuclear fuel
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	40
Question	Which one is radioactive in nature?
A	Hydrogen
B	Helium
C	Tritium
D	None of above
Answer	
Marks	2
Unit	1

Id	41
Question	Heavy water in nuclear reactor serves as a
A	Coolant
B	Absorber
C	Heater
D	None of above
Answer	
Marks	2
Unit	1

Id	42
Question	Which of the following is used as a moderator in nuclear reactor
A	Graphite
B	Aluminium
C	Steel
D	Zinc
Answer	
Marks	2
Unit	1

Id	43
Question	The half life period of radioactive material depends on
A	Temperature
B	Pressure
C	Flow
D	None of above
Answer	
Marks	2
Unit	1

Id	44
Question	Radioactive decay is -----order reaction.
A	First
B	Second
C	Third
D	zero
Answer	
Marks	2
Unit	1

Id	45
Question	Hydrogen is stored in compressed form
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	46
Question	Which of the following are non conventional energy sources
A	solar
B	tidal
C	geothermal
D	All of the above
Answer	
Marks	2
Unit	1

Id	47
Question	Crude petroleum is converted to various usable product by which method
A	condensation
B	evaporation
C	fractional distillation
D	saponification
Answer	
Marks	2
Unit	1

Id	48
Question	The un-condensed LPG gas has carbon group
A	$C_2H_6-C_6H_{14}$
B	$C_2H_6-C_{14}H_{30}$
C	$CH_4-C_6H_{14}$
D	$C_3H_8-C_4H_{10}$
Answer	
Marks	2
Unit	1

Id	49
Question	In all type of power plant power generation takes place according to
A	Kirchhoff law
B	Faradays law
C	Newtons law
D	Arrhenius law
Answer	
Marks	2
Unit	1

Id	50
Question	Energy liberated per kg of Uranium is equivalent to the energy liberated by burning
A	3500 tonnes of high grade coal
B	3250 tonnes of high grade coal
C	3100 tonnes of high grade coal
D	3600 tonnes of high grade coal
Answer	
Marks	2
Unit	1

Id	51
Question	Nuclear reaction is
A	exothermic
B	endothermic
C	none of the above
D	Both of the above
Answer	
Marks	2
Unit	1

Id	52
Question	In nuclear reactors energy conversion takes place according to
A	Newtons law
B	Einstein's law
C	Archimedes law
D	Faradays law
Answer	
Marks	2
Unit	1

Id	53
Question	In vapor dominated geothermal power plant function of steam ejector is to
A	remove steam from turbine
B	remove un-condensed gases form condenser
C	remove ash from ash pit
D	remove excess steam earth creast
Answer	
Marks	2
Unit	1

Id	54
Question	The centrifugal separator is used in geothermal power plant to
A	Separate foreign particles from steam
B	Separate gases from steam
C	cool down steam
D	heat the stem
Answer	
Marks	2
Unit	1

Id	55
Question	In tidal power plant actual power generation takes place for what time period?
A	through out day
B	24 hrs 50 mins
C	6hrs 12.5 mins
D	12 hrs 25 mins
Answer	
Marks	2
Unit	1

Id	56
Question	In tidal power plant power generated per square area of basin is proportional to
A	density of water
B	range
C	none of the above
D	both A and B
Answer	
Marks	2
Unit	1

Id	57
Question	Heavy oil as a product of fractional distillation has carbon group
A	C17-C85
B	C10-C22
C	C35-C44
D	C22-C54
Answer	
Marks	2
Unit	1

Id	58
Question	Which is the highest grade of coal available
A	peat
B	anthracite
C	bituminous
D	lignite
Answer	
Marks	2
Unit	1

Id	59
Question	The energy conversion process in thermal power plant is
A	chemical-thermal-mechanical-electrical
B	mechanical-thermal-electrical
C	Electrical-mechanical-thermal-chemical
D	thermal-chemical-mechanical
Answer	
Marks	2
Unit	1

Id	60
Question	The energy conversion process in nuclear power plant is
A	thermal-nuclear-mechanical-electrical
B	nuclear-thermal-mechanical-electrical
C	electrical-mechanical-nuclear-thermal
D	All of the above
Answer	
Marks	2
Unit	1

Id	61
Question	The energy conversion in solar power plant is
A	electrical -mechanical-solar-thermal
B	thermal-electrical
C	thermal-solar-mechanical- electrical
D	solar-thermal-mechanical-electrical
Answer	
Marks	2
Unit	1

Id	62
Question	The energy conversion process in hydroelectric power plant is
A	mechanical-potential-electrical
B	potential-mechanical-electrical
C	gravitational-electrical-mechanical
D	all of the above
Answer	
Marks	2
Unit	1

Id	63
Question	Select the correct statement
A	tidal energy is conventional energy
B	solar energy is the conventional energy
C	geothermal energy is the non-conventional energy
D	None of the above
Answer	
Marks	2
Unit	1

Id	64
Question	Select the correct statement from following
A	Conventional energy are renewable energy
B	Conventional energy are available free of cost in nature
C	Conventional energy are the neat and clean than non-conventional energy
D	Non-conventional energy are the renewable energy
Answer	
Marks	2
Unit	1

Id	65
Question	The atomic mass unit is given
A	bmu
B	amu
C	aum
D	emu
Answer	
Marks	2
Unit	1

Id	66
Question	In Eisenstein's equation 'C' stands for
A	Speed of radiation
B	Speed of sound
C	Speed of light
D	Speed of flue gasses
Answer	
Marks	2
Unit	1

Id	67
Question	Bio-gas plant is a
A	Conventional energy power plant
B	Non-conventional energy power plant
C	Both type
D	None of the above
Answer	
Marks	2
Unit	1

Id	68
Question	The consistency of thermal power plant is increased by incorporating
A	Heliostats
B	Cooling tower
C	Condenser
D	Thermal storage
Answer	
Marks	2
Unit	1

Id	69
Question	The function of heliostates in solar power plant is to
A	Scatter solar rays
B	Collect solar rays
C	Reflect solar rays to sky
D	Deflect solar rays
Answer	
Marks	2
Unit	2

Id	70
Question	The function of condenser used in solar power plant is to
A	Reduce back pressure on turbine
B	Condense the steam coming out of turbine
C	Increase work out put of turbine
D	All of the above
Answer	
Marks	2
Unit	2

Id	71
Question	The first attempt of conversion of solar energy to electrical energy was made by
A	Faraday
B	Josheph Priestley
C	J.A.Harrinton
D	Newton
Answer	
Marks	2
Unit	2

Id	72
Question	The function of cooling tower in solar power plant is to
A	Cool steam coming from turbine
B	Cool condensate of condenser used to cool the steam
C	Cool the pump bearings
D	None of the above
Answer	
Marks	2
Unit	2

Id	73
Question	The conventional sources of energy except hydro are
A	Dusty
B	Limited
C	Less efficient
D	All of the above
Answer	
Marks	2
Unit	1

Id	74
Question	The non-conventional energy sources are
A	Neat
B	Clean
C	Unlimited
D	All of the above
Answer	
Marks	2
Unit	1

Id	75
Question	Select correct statement from following
A	U_{235} is a naturally occurring radioactive material
B	Thorium can be converted to U_{233} by neutron irradiation
C	Plutonium is produced artificially by U_{238}
D	All of the above
Answer	
Marks	2
Unit	1

Id	76
Question	The product of nuclear reaction are sent to chemical treatment plant for
A	Separation of different components
B	Reaction
C	As waste
D	Non of the above
Answer	
Marks	2
Unit	1

Id	77
Question	The breeder reactor
A	Generates energy
B	Creates isotopes
C	Converts non fissile material to fissile material
D	Generates neutron
Answer	
Marks	2
Unit	1

Id	78
Question	In wind mills gearing is used to
A	Speed up the aero-turbine
B	Maintain constant speed of turbo generator set
C	Speed down aero turbine
D	All of the above
Answer	
Marks	2
Unit	3

Id	79
Question	The function of coupling in windmill is to
A	Change the direction of turbo generator as per wind direction
B	Maintain constant position
C	Maintain constant speed
D	Minimize speed
Answer	
Marks	2
Unit	3

Id	80
Question	Basic components of wind mill are
A	Gearing
B	Aero-turbine
C	Coupling and control unit
D	All of the above
Answer	
Marks	2
Unit	3

Id	81
Question	Advantages of coal pulverization are
A	Uniform burning
B	Complete combustion
C	Increased thermal efficiency
D	All of the above
Answer	
Marks	2
Unit	1

Id	82
Question	The very first experiment on solar energy was conducted in
A	1674
B	1774
C	1874
D	1974
Answer	
Marks	2
Unit	2

Id	83
Question	The first attempt to generate electrical energy from geothermal energy dates back to
A	1902
B	1903
C	1904
D	1905
Answer	
Marks	2
Unit	3

Id	84
Question	Percentage of ash generated by Indian coal is of the order of
A	10-25%
B	10-20%
C	20-30%
D	20-35%
Answer	
Marks	2
Unit	1

Id	85
Question	Ash handling system now a days in use is
A	Mechanic ash handling system
B	Hydraulic ash handling system
C	Pneumatic ash handling system
D	All of the above
Answer	
Marks	2
Unit	1

Id	86
Question	What are the devices used in preparation during coal handling?
A	Bull dozers, tramways
B	Belt conveyors, skip hoists
C	Crushers, sizer, dryers
D	Bins bunkers, indicators
Answer	
Marks	2
Unit	1

Id	87
Question	Select correct statement regarding fire tube boilers, they are
A	Internally fired, forced circulated, medium pressure
B	Externally fired, forced circulated, high pressure
C	Internally fired, low pressure, industrial
D	Externally fired, high pressure, locomotive
Answer	
Marks	2
Unit	1

Id	88
Question	Select correct statement regarding water tube boiler, they are
A	Externally fired, forced circulated, low pressure
B	Internally fired, forced circulated , low pressure
C	Externally fired, natural circulated, high pressure
D	Internally fired, natural circulated, high pressure
Answer	
Marks	2
Unit	1

Id	89
Question	What is true regarding Cochran boiler, it is
A	Vertical axis
B	Forced circulated
C	Internally fired
D	All of the above
Answer	
Marks	2
Unit	1

Id	90
Question	What is true regarding assessors and mountains of boiler
A	Accessories increases efficiency and mounting provide safety
B	Accessories provide safety and mountings increase efficiency
C	Both provide safety
D	None of the above
Answer	
Marks	2
Unit	1

Id	91
Question	Select odd one out from below
A	Super heater
B	Economizer
C	Pressure gauge
D	Air preheater
Answer	
Marks	2
Unit	1

Id	92
Question	What is the function of super heater in thermal power plant?
A	It acts as safety device in the plant
B	It increases corrosion of turbine blades
C	It abstract heat from flue gases and super heats steam
D	It increases temperature of flue gases
Answer	
Marks	2
Unit	1

Id	93
Question	Select odd one out of the following
A	Fusible plug
B	Economizer
C	Pressure gauge
D	Water level indicator
Answer	
Marks	2
Unit	1

Id	94
Question	What is the function of pressure gauge in boiler?
A	To exhaust scale from boiler
B	To indicate pressure inside the boiler
C	To indicate water level
D	To release excess pressure
Answer	
Marks	2
Unit	1

Id	95
Question	What are the equipment is used in out door coal handling?
A	Bulldozers
B	Scrappers
C	Tramways
D	All of the above
Answer	
Marks	2
Unit	1

Id	96
Question	Bab-cock Wilcox boiler is a
A	Fire tube boiler
B	Water tube boiler
C	Internally fired boiler
D	All of the above
Answer	
Marks	2
Unit	1

Id	97
Question	Bab-cock Wilcox boiler is a
A	Natural circulated boiler
B	Forced circulated boiler
C	Low pressure boiler
D	None of the above
Answer	
Marks	2
Unit	1

Id	98
Question	The function of BOC in boiler is to
A	Maintain proper water supply in the boiler
B	Indicates amount scale formed inside boiler
C	Increase thermal efficiency of boiler
D	Exhaust out scale formed in the boiler
Answer	
Marks	2
Unit	1

Id	99
Question	The function of super heater is
A	Super heat the stem thereby reducing corrosion of turbine blades
B	It reduces fuel consumption
C	It increases water temperature entering the boiler drum
D	None of the above
Answer	
Marks	2
Unit	1

Id	100
Question	In combined cycle power plant HRB stands for?
A	Heat resistance bed
B	Heat recovery boiler
C	None of the above
D	All of the above
Answer	
Marks	2
Unit	1

Id	101
Question	Liquid hydrogen is used as a rocket propellant
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	3

Id	102
Question	Metallic hydride is the best method of storage of hydrogen
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	3

Id	103
Question	Water turbines are divided in to two classes namely reaction and impulse turbine.
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	1

Id	104
Question	1-25 MW capacity hydroelectric power plants are
A	Small
B	micro
C	macro
D	Mega
Answer	
Marks	2
Unit	1

Id	105
Question	The first hydroelectric station of 130kW was started in year
A	1897
B	1910
C	1920
D	1930
Answer	
Marks	2
Unit	1

Id	106
Question	Solar energy is due to fusion of ----- gas.
A	H ₂
B	CO
C	CO ₂
D	O ₂
Answer	
Marks	2
Unit	2

Id	107
Question	Position of sun directly overhead is called
A	Sun at Zenith
B	Sunrise
C	Sunset
D	Sun at horizon
Answer	
Marks	2
Unit	2

Id	108
Question	Solar radiation received on the earth's surface without change in direction is called beam
A	True
B	False
C	
D	
Answer	
Marks	2
Unit	2

Id	109
Question	The -----measure global radiation on a horizontal surface .
A	Pyranometer
B	Ammeter
C	Multimeter
D	Taco meter
Answer	
Marks	2
Unit	2

Id	110
Question	The -----measure beam radiation on a surface normal to the sun's rays.
A	Pyrheliometer
B	Ammeter
C	Multimeter
D	Taco meter
Answer	
Marks	2
Unit	2

Id	111
Question	Flat plate solar collector can rise working fluid temperature up to--
A	100°C
B	200°C
C	300°C
D	400°C
Answer	
Marks	2
Unit	2

Id	112
Question	Concentrating type solar collector can rise working fluid temperature up to-- -----
A	500°C
B	200°C
C	300°C
D	400°C
Answer	
Marks	2
Unit	2

Id	113
Question	Metallic flat absorber plate for solar radiation collector are painted with-----color.
A	Black
B	White
C	Pink
D	Red
Answer	
Marks	2
Unit	2

Id	114
Question	Direct Solar energy is used for
A	Water heating
B	Distillation
C	Drying
D	All of the above
Answer	
Marks	2
Unit	2

Id	115
Question	The power from the sun intercepted by the earth is approximately
A	1.8×10^8 MW
B	1.8×10^{11} MW
C	1.8×10^{14} MW
D	1.8×10^{17} MW
Answer	
Marks	2
Unit	2

Id	116
Question	The following is indirect method of Solar energy utilization
A	Wind energy
B	Biomass energy
C	Wave energy
D	All of the above
Answer	
Marks	2
Unit	2

Id	117
Question	A liquid flat plate collector is usually held tilted in a fixed position, facing--- ----- if located in the northern hemisphere.
A	North
B	South
C	East
D	West
Answer	
Marks	2
Unit	2

Id	118
Question	The collection efficiency of Flat plate collector can be improved by
A	putting a selective coating on the plate
B	evacuating the space above the absorber plate
C	both (A) and (B)
D	None of the above
Answer	
Marks	2
Unit	2

Id	119
Question	The efficiency of various types of collectors _____ with _____ temperature.
A	increases, decreasing
B	decreases, increasing
C	remains same, increasing
D	depends upon type of collector
Answer	
Marks	2
Unit	2

Id	120
Question	Maximum efficiency is obtained in
A	Flat plate collector
B	Evacuated tube collector
C	Line focussing collector
D	Paraboloid dish collector
Answer	
Marks	2
Unit	2

Id	121
Question	The following type of energy is stored as latent heat
A	Thermal energy
B	Chemical energy
C	Electrical energy
D	Mechanical energy
Answer	
Marks	2
Unit	2

Id	122
Question	Which of the following type of collector is used for low temperature systems?
A	Flat plate collector
B	Line focussing parabolic collector
C	Paraboloid dish collector
D	All of the above
Answer	
Marks	2
Unit	2

Id	123
Question	In the paraboloid dish concept, the concentrator tracks the sun by rotating about
A	One axes
B	Two axes
C	Three axes
D	None of the above
Answer	
Marks	2
Unit	2

Id	124
Question	The following is (are) laws of black body radiation.
A	Plank's law
B	Stefan-Boltzmann law
C	both (A) and (B)
D	None of the above
Answer	
Marks	2
Unit	2

Id	125
Question	The angle made by the plane surface with the horizontal is known as
A	Latitude
B	Slope
C	Surface azimuth angle
D	Declination
Answer	
Marks	2
Unit	2

Id	126
Question	Surface azimuth angle varies from
A	0 to 90°
B	-90 to 90°
C	0 to 180°
D	-180° to 180°
Answer	
Marks	2
Unit	2

Id	127
Question	The complement of zenith angle is
A	Solar altitude angle
B	Surface azimuth angle
C	Solar azimuth angle
D	Slope
Answer	
Marks	2
Unit	2

Id	128
Question	The correction has a magnitude of ___ minutes for every degree difference in longitude.
A	2
B	4
C	6
D	8
Answer	
Marks	2
Unit	2

Id	129
Question	The global radiation reaching a horizontal surface on the earth is given by
A	Hourly beam radiation + Hourly diffuse radiation
B	Hourly beam radiation – Hourly diffuse radiation
C	Hourly beam radiation / Hourly diffuse radiation
D	Hourly diffuse radiation / Hourly beam radiation
Answer	
Marks	2
Unit	2

Id	130
Question	The ratio of the beam radiation flux falling on a tilted surface to that falling on a horizontal surface is called the
A	Radiation shape factor
B	Tilt factor
C	Slope
D	None of the above
Answer	
Marks	2
Unit	2

Id	131
Question	The amount of energy available in the wind at any instant is proportional to----- of the wind speed.
A	Square root power of two
B	Square root power of three
C	Square power
D	Cube power
Answer	
Marks	2
Unit	3

Id	132
Question	Wind energy is harnessed as _____ energy with the help of windmill or turbine.
A	Mechanical
B	Solar
C	Electrical
D	Heat
Answer	
Marks	2
Unit	3

Id	133
Question	Winds having following speed are suitable to operate wind turbines.
A	5 – 25m/s
B	10 – 35m/s
C	20 – 45m/s
D	30 – 55m/s
Answer	
Marks	2
Unit	3

Id	134
Question	Wind energy can be used to
A	generate electricity
B	operate flour mills
C	draw underground water
D	all of the above
Answer	
Marks	2
Unit	3

Id	135
Question	The wind speed is measured using an instrument called
A	hydrometer
B	Manometer
C	anemometer
D	wind vane
Answer	
Marks	2
Unit	3

Id	136
Question	The gradient height is about -----m from the ground.
A	500
B	1000
C	1500
D	2000
Answer	
Marks	2
Unit	3

Id	137
Question	The atmosphere with uniform wind speed is called the ____ atmosphere
A	plain
B	surface
C	free
D	shear
Answer	
Marks	2
Unit	3

Id	138
Question	In which region winds are stronger and constant?
A	deserts
B	offshore
C	low altitudes sites
D	all of above
Answer	
Marks	2
Unit	3

Id	139
Question	What does heating and cooling of the atmosphere generates?
A	conduction currents
B	radiation currents
C	convection currents
D	all of above
Answer	
Marks	2
Unit	3

Id	140
Question	When the land near the earth's equator is heated
A	all the oceans gets heated up
B	small wind currents are formed
C	large winds are formed
D	tides are raised
Answer	
Marks	2
Unit	3

Id	141
Question	There is little wind in the
A	north pole region
B	south pole region
C	tropical region
D	$\pm 5^\circ$ around the equator
Answer	
Marks	2
Unit	3

Id	142
Question	Uneven heating occurs on land surface and water bodies are due to _____
A	air Currents
B	solar radiation
C	lunar eclipse
D	none of the above
Answer	
Marks	2
Unit	3

Id	143
Question	The wind intensity can be described by
A	Reynolds number
B	Mach number
C	Beaufort number
D	Froude number
Answer	
Marks	2
Unit	3

Id	144
Question	The power of wind per unit area normal to the direction of wind is called
A	solidity
B	power density
C	energy patter factor
D	none of the above
Answer	
Marks	2
Unit	3

Id	145
Question	Which country created wind mills?
A	Egypt
B	Mongolia
C	Iran
D	Japan
Answer	
Marks	2
Unit	3

Id	146
Question	Which country meets more than 40% of its electricity demand from wind energy?
A	Denmark
B	Portugal
C	Ireland
D	Spain
Answer	
Marks	2
Unit	3

Id	147
Question	EPF stand for
A	energy pattern factor
B	energy pattern fraction
C	efficiency pattern factor
D	none of the above
Answer	
Marks	2
Unit	3

Id	148
Question	What are used to turn wind energy into electrical energy?
A	Turbine
B	Generators
C	Yaw motor
D	Blades
Answer	
Marks	2
Unit	3

Id	149
Question	Forces acting of the wind turbine blades are
A	viscous force
B	inertia force
C	lift & drag
D	none of the above
Answer	
Marks	2
Unit	3

Id	150
Question	Low solidity rotors use which of the following force for rotation
A	drag
B	lift
C	centrifugal
D	centripetal
Answer	
Marks	2
Unit	3