

Online Examination, University of Mumbai

Department: Mechanical
 Revision: R2016
 Semester: 8
 Subject: Renewable Energy Systems (MEDLO8043)
 Date of Examination: 2020-10-15

Q. 1	The main composition of biogas is _____	M	
Option 1	Nitrogen		0
Option 2	Hydrogen		0
Option 3	Methane		CORRECT OPTION
Option 4	Carbon dioxide		0
Q. 2	The sun sends out the energy in the form of radiations at the rate of _____. However, the energy intercepted by the earth is about _____.	M	
Option 1	3.7×10^{10} MW, 1.85×10^{11} MW		0
Option 2	3.7×10^{30} MW, 1.85×10^{111} MW		0
Option 3	3.7×10^{40} MW, 1.85×10^{11} MW		0
Option 4	3.7×10^{20} MW, 1.85×10^{11} MW		CORRECT OPTION
Q. 3	Which of the following is a non-renewable resource?	M	
Option 1	Wildlife		0
Option 2	Water		0
Option 3	Forest		0
Option 4	Coal		CORRECT OPTION
Q. 4	Total installed capacity of Wind Power in India	M	
Option 1	8700MW		0
Option 2	4000 MW		0
Option 3	21651 MW		0
Option 4	34046 MW		CORRECT OPTION
Q. 5	Solar energy can be directly converted to electrical energy by which of the following devices?	M	
Option 1	solar cell		CORRECT OPTION
Option 2	solar geyser		0
Option 3	solar heater		0
Option 4	solar cooker		0
Q. 6	Which Ministry is mainly responsible for research and development in renewable energy sources such as wind power, small hydro, biogas and solar power?	M	
Option 1	Health and Family Welfare		0
Option 2	Ministry of New and Renewable Energy		CORRECT OPTION
Option 3	Human Resource Development		0
Option 4	Agriculture and Farmers Welfare		0
Q. 7	In the paraboloid dish concept, the concentrator tracks the sun by rotating about _____	M	
Option 1	Two axes		CORRECT OPTION
Option 2	Three axes		0
Option 3	One axes		0
Option 4	No Axis		0
Q. 8	The surface azimuth angle varies from _____	M	
Option 1	-90 to 90°		0
Option 2	0 to 90°		0
Option 3	0 to 180°		0

Option 4	-180° to 180°	CORRECT OPTION
Q. 9	Which type of absorber increases the heat transfer area over a simple flat plate absorber of the same capacity?	M
Option 1	Porous absorber plate	0
Option 2	Non-porous absorber plate	0
Option 3	Over lapped glass absorber	0
Option 4	Finned absorber	CORRECT OPTION
Q. 10	What are provided to minimize heat loss?	M
Option 1	Surface plate	0
Option 2	Casing	0
Option 3	Insulation	CORRECT OPTION
Option 4	Absorber plate	0
Q. 11	A liquid flat plate collector is usually held tilted in a fixed position, facing _____ if located in the northern hemisphere.	M
Option 1	West	0
Option 2	South	CORRECT OPTION
Option 3	North	0
Option 4	East	0
Q. 12	In what form is solar energy is radiated from the sun?	M
Option 1	Ultraviolet Radiation	0
Option 2	Transverse waves	0
Option 3	Electromagnetic waves	CORRECT OPTION
Option 4	Infrared radiation	0
Q. 13	The function of a solar collector is of converting solar energy into	M
Option 1	Electricity energy	0
Option 2	Mechanical energy	0
Option 3	Thermal energy	CORRECT OPTION
Option 4	Radiation energy	0
Q. 14	The complement of the zenith angle is the	M
Option 1	surface azimuth angle	0
Option 2	solar azimuth angle	0
Option 3	solar altitude angle	CORRECT OPTION
Option 4	slope	0
Q. 15	Angle made by plane surface with horizontal is called _____	M
Option 1	Altitude angle	0
Option 2	Slope	CORRECT OPTION
Option 3	Hour Angle	0
Option 4	Zenith angle	0
Q. 16	The short-wavelength radiation reaching on the Earth is	M
Option 1	3 to 30 μm	0

Option 2	0.003 to 3.5 μm		0
Option 3	0.3 to 3 μm	CORRECT OPTION	
Option 4	0.03 to 0.30 μm		0
Q. 17	Name the windmill which has four blades mounted on a central post.	M	
Option 1	Smock mill		0
Option 2	Tower mill		0
Option 3	Post mill	CORRECT OPTION	
Option 4	Fan mill		0
Q. 18	How is the action of yaw controlled in small turbines?	M	
Option 1	Tail vane	CORRECT OPTION	
Option 2	Yaw motor		0
Option 3	Shaft		0
Option 4	Blades		0
Q. 19	Which type of windmill blades are made out of sheet metal or aluminum?	M	
Option 1	Horizontal axis multi bladed type wind mill	CORRECT OPTION	
Option 2	Sail type wind mill		0
Option 3	Horizontal axis with two aerodynamic blades		0
Option 4	Horizontal axis propeller type wind mill		0
Q. 20	In large two bladed wind mill machines blades are slightly inclined at vertical is called as _____.	M	
Option 1	blade twist angle		0
Option 2	camber		0
Option 3	angle of attack		0
Option 4	coning angle	CORRECT OPTION	
Q. 21	Which type of axis does a Savonius Rotor has?	M	
Option 1	Horizontal axis		0
Option 2	Mediolateral axis		0
Option 3	Lateral Axis		0
Option 4	Vertical axis	CORRECT OPTION	
Q. 22	The wind speed is measured using an instrument called	M	
Option 1	Pyranometer		0
Option 2	Manometer		0
Option 3	Wind vane		0
Option 4	Anemometer	CORRECT OPTION	
Q. 23	No turbine can capture more than _____ of the kinetic energy in wind.	M	
Option 1	57.3 Percent		0
Option 2	58.3 Percent		0
Option 3	59.3 Percent	CORRECT OPTION	
Option 4	60.3 Percent		0
Q. 24	What form of force acts on the blades of Darrieus machine?	M	
Option 1	Pure tension	CORRECT OPTION	
Option 2	Air resistance force		0
Option 3	Shear force		0
Option 4	Compression		0
Q. 25	Which type of wind turbine has low RPM?	M	
Option 1	Small wind turbine		0
Option 2	Medium wind turbine		0
Option 3	Remote wind turbine		0
Option 4	Large wind turbine	CORRECT OPTION	

	Online Examination, University of Mumbai	
Department:	Mechanical	
Revision:	R2016	
Semester:	8	
Subject:	Power Engineering (MEC803)	
Date of Examination:	2020-10-13	
Q. 1	Which one of the following statements is not true for a supercritical steam generator?	M
Option 1	It has a very small drum compared to a conventional boiler	CORRECT OPTION
Option 2	A supercritical pressure plant has higher efficiency than a subcritical pressure plant	0
Option 3	As it requires absolutely pure feed water, preparation of feed water is more important than in a subcritical pressure boiler	0
Option 4	The feed pressure required is very high, almost 1.2 to 1.4 times the boiler pressure	0
Q. 2	The correct order in which energy is converted from one form to another, in steam power plant is	M
Option 1	Kinetic energy – potential energy – mechanical energy – electrical energy	0
Option 2	potential energy – Kinetic energy –mechanical energy – electrical energy	CORRECT OPTION
Option 3	mechanical energy – potential energy – Kinetic energy –electrical energy	0
Option 4	Kinetic energy – potential energy– electrical energy – mechanical energy	0
Q. 3	In Parson's reaction turbines, the velocity diagram triangles at the inlet and outlet are which of the following?	M
Option 1	Congruent	CORRECT OPTION
Option 2	Asymmetrical	0
Option 3	Right-angled	0
Option 4	Isosceles	0
Q. 4	Which one of the following is used to bring down the speed of an impulse steam turbine to practical limits?	M
Option 1	A gear box	0
Option 2	A large flywheel	0
Option 3	A centrifugal governor	0
Option 4	Compounding of the turbine	CORRECT OPTION
Q. 5	Which among the following is the boiler mounting?	M
Option 1	Feed pump	0
Option 2	Economiser	0
Option 3	Superheater	0
Option 4	Blow off cock	CORRECT OPTION
Q. 6	The heat balance sheet for the boiler shows the	M
Option 1	Complete account of heat supplied by 1 kg of dry fuel and the heat consumed	CORRECT OPTION
Option 2	Steam formed by combustion of hydrogen per kg of fuel	0
Option 3	Heat in superheater	0
Option 4	Moisture present in the fuel	0
Q. 7	A fusible plug in small boilers is located _____ and fitted in order to _____.	M
Option 1	Avoid explosion, in the fire tubes	0

Option 2	Control steam dome, above steam dome	0
Option 3	Extinguish fire if water level falls below alarming limit, over the combustion chamber	CORRECT OPTION
Option 4	Avoid excessive build up of pressure, in the drum	0
Q. 8	Cocharan boiler is a _____	M
Option 1	Vertical water tube water	0
Option 2	Horizontal fire tube boiler	0
Option 3	Vertical fire tube water	CORRECT OPTION
Option 4	Horizontal water tube boiler	0
Q. 9	In a reaction turbine	M
Option 1	The expansion of steam takes place partly in the fixed blades and partly in the moving blades	CORRECT OPTION
Option 2	he steam is allowed to expand in the nozzle, where it gives a high velocity before it enters the moving blades	0
Option 3	The steam is expanded from a high pressure to a condenser pressure in one or more nozzles	0
Option 4	The pressure and temperature of steam remains constant	0
Q. 10	The pressure of feed water has to be raised before its entry into the boiler. The pressure is raised by a device known as	M
Option 1	Pressure gauge	0
Option 2	Feed check valve	CORRECT OPTION
Option 3	Feed pump	0
Option 4	Injector	0
Q. 11	The net result of pressure-velocity compounding of steam turbine is:	M
Option 1	less no of stages	CORRECT OPTION
Option 2	Shorter turbine for a given pressure drop	0
Option 3	Lower friction loss	0
Option 4	Large turbine for a given pressure drop	0
Q. 12	The number of fire tubes in Lancashire boiler is.....	M
Option 1	0	0
Option 2	6	0
Option 3	2	CORRECT OPTION
Option 4	1	0
Q. 13	In pressure compounding, steam is passed through	M
Option 1	fixed nozzle-moving blades-fixed nozzles-moving blades	CORRECT OPTION
Option 2	fixed blades-moving blades-fixed nozzles- moving blades	0
Option 3	moving blades-fixed nozzles- fixed blades-moving blades	0
Option 4	fixed nozzle-moving blades-fixed blades-moving blades	0
Q. 14	Steam is generated in a _____ boiler at a pressure above the critical point.	M
Option 1	thrice through	0
Option 2	Simple	0
Option 3	superficial	0
Option 4	once through	CORRECT OPTION
Q. 15	Open cycle gas turbine works on	M
Option 1	Brayton or Atkinson cycle	CORRECT OPTION
Option 2	Ericsson cycle	0
Option 3	Carnot cycle	0

Option 4	Rankine cycle	0
Q. 16	The air standard cycle for a Gas-Turbine called as	M
Option 1	Diesel cycle	0
Option 2	Rankine cycle	0
Option 3	Brayton cycle	CORRECT OPTION
Option 4	Reheat cycle	0
Q. 17	In a two stage gas turbine plant, reheating after first stage.....	M
Option 1	cannot be identified	0
Option 2	Decrease the thermal efficiency	CORRECT OPTION
Option 3	Does not effect the thermal efficiency	0
Option 4	Increase the thermal efficiency	0
Q. 18	The gas turbines are mainly used in?	M
Option 1	Pumping stations	0
Option 2	Aircrafts.	0
Option 3	Locomotives.	0
Option 4	Automobiles.	CORRECT OPTION
Q. 19	In the _____ heat transfer takes place between the exhaust gases and cool air.	M
Option 1	Re-heater	CORRECT OPTION
Option 2	Intercooler	0
Option 3	Compressor	0
Option 4	Regenerator	0
Q. 20	Gas turbine plants are not used -	M
Option 1	As peak load plants.	CORRECT OPTION
Option 2	As base load plants.	0
Option 3	As standby power plants.	0
Option 4	In combination with the steam power plants.	0
Q. 21	All kinds of Rocket nozzles are normally	M
Option 1	Cylindrical	0
Option 2	Convergent-Divergent	CORRECT OPTION
Option 3	Convergent	0
Option 4	Divergent	0
Q. 22	In jet engines the products of combustion after passing through the gas turbine are discharged into	M
Option 1	Atmosphere	0
Option 2	Vacuum	0
Option 3	Back to the compressor	0
Option 4	Discharge nozzle	CORRECT OPTION
Q. 23	In a jet propulsion unit air is drawn into the rotary compressor at 18°C and 1.01 bar and delivered at 4.04 bar. The isentropic efficiency of compression is 83 Percent. calculate the temperature at the exit of compressor.	M
Option 1	461.39 k	CORRECT OPTION
Option 2	460.89 k	0
Option 3	170.39 k	0
Option 4	560.89 k	0
Q. 24	Almost all aircraft powerplant Intakes actually are	M
Option 1	Fixed geometry for both subsonic and supersonic aircraft	CORRECT OPTION

Option 2	Variable geometry for both subsonic and supersonic aircraft	0
Option 3	Convergent-Divergent fixed geometry for both subsonic and supersonic aircraft	0
Option 4	Fixed geometry for subsonic aircraft and variable geometry for supersonic aircraft	0
Q. 25	For which of these applications is the turboshaft engine most suited?	M
Option 1	High-speed combat aircraft	0
Option 2	Low-speed fixed-wing aircraft	0
Option 3	High altitude reconnaissance aircraft	0
Option 4	Helicopters	CORRECT OPTION

	Online Examination, University of Mumbai	
Department:	Mechanical	
Revision:	R2016	
Semester:	8	
Subject:	Industrial Engineering & Management (MEC802)	
Date of Examination:	2020-10-10	
Q. 1	Industrial Engineering could be applied to	M
Option 1	Any organization	CORRECT OPTION
Option 2	Service Industry only	0
Option 3	Product Industry only	0
Option 4	Manufacturing organization only	0
Q. 2	Total work content of a process	M
Option 1	can be reduced	CORRECT OPTION
Option 2	is less than basic work content	0
Option 3	cannot be reduced	0
Option 4	does not include basic work content	0
Q. 3	Industrial Designs could be simplified by	M
Option 1	Specialization	0
Option 2	Diversification	0
Option 3	Standardization	CORRECT OPTION
Option 4	Randomization	0
Q. 4	System Approach in Industrial Engineering implies	M
Option 1	encouraging working of departments in isolation	0
Option 2	awarding autonomy to departments	0
Option 3	integration of resources and collaboration among functions	CORRECT OPTION
Option 4	differentiating the departments	0
Q. 5	Industrial Engineering encourages	M
Option 1	monotonous assignments	0
Option 2	specialized workforce	0
Option 3	isolation of functional workforce	0
Option 4	cross training of workforce	CORRECT OPTION
Q. 6	Industrial Engineering techniques	M
Option 1	encourage overtime	0
Option 2	induce disparity in wage structure	0
Option 3	induce disparity in allowances	0
Option 4	maintain parity in wages and allowances	CORRECT OPTION
Q. 7	Factors influencing operator's productivity relate to	M
Option 1	Revenue	0
Option 2	Work Environment	CORRECT OPTION
Option 3	Profit	0
Option 4	Sales	0
Q. 8	Preventive Maintenance of manufacturing equipment has direct impact on	M
Option 1	Machine Productivity	CORRECT OPTION
Option 2	Land Productivity	0
Option 3	Sales Productivity	0
Option 4	Distribution Productivity	0

Q. 9	Value Analysis should be applied when	M
Option 1	Order Deliveries happen on time	0
Option 2	Return on Investment declines	CORRECT OPTION
Option 3	Sales Volume improves	0
Option 4	Foreman demands more salary	0
Q. 10	Identified Product for Value Analysis if redesigned can	M
Option 1	do no good to revenues	0
Option 2	not reduce costs to organization	0
Option 3	not improve profit margins	0
Option 4	reduce costs and add to Profits of organization	CORRECT OPTION
Q. 11	Value Analysis	M
Option 1	has no impact on factory overheads	0
Option 2	cannot reduce labour cost	0
Option 3	has no impact on product's contribution to organization	0
Option 4	can reduce factory overheads	CORRECT OPTION
Q. 12	Product Cost should bear	M
Option 1	no relation to function it serves	0
Option 2	no consideration for services it renders	0
Option 3	a reasonable proportion to function it serves	CORRECT OPTION
Option 4	no consideration for function and services of it	0
Q. 13	Excess function added to a Product	M
Option 1	is irrelevant to it's value proposition	0
Option 2	is inversely proportional to it's cost of realization	0
Option 3	carries no meaning to it's cost of realization	0
Option 4	is directly proportional to it's Cost of realization	CORRECT OPTION
Q. 14	Product Life Cycle stages follow sequence of	M
Option 1	Decline-Growth-Maturity-Introduction	0
Option 2	Introduction-Growth-Maturity-Decline	CORRECT OPTION
Option 3	Maturity-Growth-Introduction-Decline	0
Option 4	Growth-Introduction-Maturity-Decline	0
Q. 15	Steps in Value Analysis follow sequence of	M
Option 1	Create-Blast-Refine	0
Option 2	Create-Refine-Blast	0
Option 3	Blast-Create-Refine	CORRECT OPTION
Option 4	Refine-Create-Blast	0
Q. 16	The following principles are used to calculate the energy requirements on heart and lungs as a result of muscular effort during movements	M
Option 1	Pythagorean, Newtonian, ohms	0
Option 2	physical, chemical, biological	0
Option 3	Biomechanical, physiological, anthropometric	CORRECT OPTION
Option 4	Euclidian, eureka, erudite	0

Q. 17	At germination stage, to attract and retain talent, dotcom companies offer	M
Option 1	increase in pay	0
Option 2	fringe benefits	0
Option 3	stock option	CORRECT OPTION
Option 4	allowances	0
Q. 18	These are type of Factors that jobs share in common with one another and that provide the evaluation basis in job evaluation.	M
Option 1	compensable	CORRECT OPTION
Option 2	job worth	0
Option 3	job equity	0
Option 4	composite	0
Q. 19	BPR corollary could be	M
Option 1	maintaining status quo on values and priorities	0
Option 2	unfollowing natural tendencies	0
Option 3	challenging conflicting values and priorities	CORRECT OPTION
Option 4	thinking like a loser	0
Q. 20	Employee cost to company includes	M
Option 1	no room for incentives	0
Option 2	incentives only	0
Option 3	basic wages only	0
Option 4	basic wages and incentives	CORRECT OPTION
Q. 21	Rating a worker implies assessment of work	M
Option 1	relative to standard pace of working	CORRECT OPTION
Option 2	ignoring concept of desired performance level	0
Option 3	ignoring attendance records	0
Option 4	ignoring contribution to accidents	0
Q. 22	prevailing market rate for wages is also known as	M
Option 1	comparable wage	CORRECT OPTION
Option 2	living wage	0
Option 3	fare wage	0
Option 4	minimum wage	0
Q. 23	In Ergonomics, examples of administrative controls include all except	M
Option 1	An effective tool maintenance program	0
Option 2	Installation of an adjustable height keyboard tray	CORRECT OPTION
Option 3	Rotating workers through different jobs	0
Option 4	Rest breaks	0
Q. 24	What angle in degree should your arms be bent to keyboard safely and comfortably?	M
Option 1	180	0
Option 2	0	0
Option 3	90	CORRECT OPTION
Option 4	45	0
Q. 25	In which of the following methods is the standard time stated as minutes and points?	M
Option 1	Barth variable incentive plan	0
Option 2	Emerson efficiency plan	0
Option 3	Bedeaux system	CORRECT OPTION
Option 4	Task and time bonus	0

	Online Examination, University of Mumbai	
Department:	Mechanical	
Revision:	R2016	
Semester:	8	
Subject:	Design of Mechanical Systems (MEC801)	
Date of Examination:	2020-10-08	
Q. 1	Which is the next step of 'planning for distribution' ?	M
Option 1	Detailed Design	0
Option 2	Planning for Use	CORRECT OPTION
Option 3	Planning For Manufacture	0
Option 4	Embodiment Design	0
Q. 2	In which of these below do you have to plan for production of product.	M
Option 1	Methodology of design	CORRECT OPTION
Option 2	Component Design	0
Option 3	Lateral design	0
Option 4	System design	0
Q. 3	Design methodology which deals with rough sketches of possible mechanism is to identify	M
Option 1	the manufacturing ability.	0
Option 2	the sequence of operation.	0
Option 3	the shape of the system.	0
Option 4	one best suited mechanism after comparing with the options.	CORRECT OPTION
Q. 4	The logical order of different activities in a design project is called _____.	M
Option 1	Morphology of design	CORRECT OPTION
Option 2	Product Design	0
Option 3	System Design	0
Option 4	Concept design	0
Q. 5	Which term does not belong to classification of Design equation?	M
Option 1	Primary Design Equation	0
Option 2	Limit Equation.	0
Option 3	Subsidiary Design Equation	0
Option 4	Material parameters	CORRECT OPTION
Q. 6	The recommended manufacturing process for crane hook is _____.	M
Option 1	Forging	CORRECT OPTION
Option 2	Machining	0
Option 3	Welding	0
Option 4	Casting	0
Q. 7	Ropes that offers good resistance to wear as well as provides good flexibility are	M
Option 1	6*19	CORRECT OPTION
Option 2	6*7	0
Option 3	6*12	0
Option 4	6*37	0
Q. 8	In the design of which component life is calculated?	M
Option 1	Rope	CORRECT OPTION
Option 2	Hook	0
Option 3	Cross piece	0
Option 4	Shackle plate	0

Q. 9	What type of relationship is there between life of the steel wire rope and number of bends?	M	
Option 1	No relation		0
Option 2	Inversely proportional	CORRECT OPTION	
Option 3	Directly Proportional		0
Option 4	Equal		0
Q. 10	Find the number of compensating pulleys for 8 fall system.	M	
Option 1	Four		0
Option 2	One		0
Option 3	Two		0
Option 4	Three	CORRECT OPTION	
Q. 11	Which type of bearing is used for hook?	M	
Option 1	Thrust bearing	CORRECT OPTION	
Option 2	Angular contact ball bearing		0
Option 3	Roller bearing		0
Option 4	Deep groove ball bearing		0
Q. 12	Select suitable motor for hoisting mechanism used for lifting a load of 150 kN (Design load). Hoisting speed is 6 m/min. Assume overall efficiency as 0.85.	M	
Option 1	18.5 kW	CORRECT OPTION	
Option 2	15 kW		0
Option 3	22 kW		0
Option 4	11 kW		0
Q. 13	In hook cross section, fibres experiencing maximum stress are:	M	
Option 1	Fibres at outer section of curved part		0
Option 2	Fibres at the point of application of load.		0
Option 3	Fibres at inner section of curved part	CORRECT OPTION	
Option 4	Fibres at threaded section		0
Q. 14	Design of pulley axle is of EOT crane is based on _____.	M	
Option 1	Torsional shear stress		0
Option 2	Bearing stress		0
Option 3	Direct tensile stress		0
Option 4	Bending stress	CORRECT OPTION	
Q. 15	In case of reverse bending, the rope life is _____ one half approximately.	M	
Option 1	reduces by	CORRECT OPTION	
Option 2	equal to 90% of		0
Option 3	equal to 80% of		0
Option 4	increases by		0
Q. 16	Which of the following bearing type suitable for pulleys used in snatch block of a hoisting mechanism?	M	
Option 1	Thrust ball bearing		0
Option 2	Thrust roller bearing		0

Option 3	journal bearing	0
Option 4	Radial ball bearing	CORRECT OPTION
Q. 17	In case of selection of bearing for pulley of EOT crane, the rotation factor V will be ?	M
Option 1	1	0
Option 2	2	0
Option 3	1.2	CORRECT OPTION
Option 4	2.1	0
Q. 18	Calculate motor power (P) required by the EOT crane if, (w)Design load=60 kN, Velocity of hoist = 0.1m/s; $\eta = 0.88$	M
Option 1	6.7 kW	CORRECT OPTION
Option 2	12.1 kW	0
Option 3	10.5 kW	0
Option 4	4.3 kW	0
Q. 19	Troughed belt conveyors are generally	M
Option 1	Two or three idler type	0
Option 2	Three or five idler type.	CORRECT OPTION
Option 3	Two idler type	0
Option 4	Three idler type	0
Q. 20	Driving unit is connected to belt conveyor at:	M
Option 1	Head pulley	0
Option 2	Snub pulley	0
Option 3	Tail pulley	0
Option 4	Either head and tail pulley both	CORRECT OPTION
Q. 21	Which element of belt conveyor is directly responsible for conveying material?	M
Option 1	Conveyor belt	CORRECT OPTION
Option 2	Idlers	0
Option 3	Snub pulleys	0
Option 4	Tail pulley	0
Q. 22	for ungraded material in a belt Conveyor the maximum lump size (a) and Minimum width (B) is given by	M
Option 1	$B = 1.5 \times (amax) + 200 \text{ mm}$	0
Option 2	$B = 3.5 \times (amax) + 200 \text{ mm}$	0
Option 3	$B = 2 \times (amax) + 200 \text{ mm}$	CORRECT OPTION
Option 4	$B = 2.5 \times (amax) + 200 \text{ mm}$	0
Q. 23	Power required for lifting load through height "h" in belt conveyor is:Where: ρ = Mass density,Q=Capacity of conveyor,L=belt length,h= Height through which material to be lift.	M
Option 1	$P = (\rho \cdot g \cdot Q \cdot h^2)$	0
Option 2	$P = \rho \cdot g \cdot Q \cdot L$	0
Option 3	$P = \rho \cdot g \cdot Q \cdot h$	CORRECT OPTION
Option 4	$P = (\rho \cdot g \cdot Q \cdot h) \cdot L$	0
Q. 24	Volume carrying capacity is more in:	M
Option 1	Flat belt conveyor	0
Option 2	Troughed belt conveyor	CORRECT OPTION
Option 3	Chain conveyor	0
Option 4	Screw conveyor	0
Q. 25	Width and speed of conveyor Belt depends upon _____ the material	M
Option 1	lump density	0
Option 2	neither a and b	0
Option 3	both a and b	CORRECT OPTION
Option 4	bulk size	0

Online Examination, University of Mumbai

Department: All
Revision: R2016
Semester: 8
Subject: Project Management (ILO8021)
Date of Examination: 2020-10-17

Q. 1	The criteria for evaluation of project needs	M	
Option 1	to be established from the beginning	CORRECT OPTION	
Option 2	to be controlled	0	
Option 3	to be examined	0	
Option 4	to be resolved	0	
Q. 2	A project organization is a structure that facilitates the coordination and	M	
Option 1	implementation of project activities	CORRECT OPTION	
Option 2	combination of project activities	0	
Option 3	maintaining portfolio	0	
Option 4	selection of different processes	0	
Q. 3	A project life cycle is the series of phases that a project passes through	M	
Option 1	from its initiation to its closure.	CORRECT OPTION	
Option 2	from its initiation to its end.	0	
Option 3	from its lower to its upper stage.	0	
Option 4	from planning to its execution.	0	
Q. 4	Project sponsor is the person or group that provides the	M	
Option 1	financial resources for the project.	CORRECT OPTION	
Option 2	patrons to the project	0	
Option 3	new directions to the project	0	
Option 4	support for the project	0	
Q. 5	Which of the following statement is true about a Program?	M	
Option 1	A program is a portfolio	0	
Option 2	A Program is a part of a big project	0	
Option 3	A Program is a group of related projects	CORRECT OPTION	
Option 4	A Program is a group of unrelated projects	0	
Q. 6	Which of the following statement is true about the Project Charter?	M	
Option 1	It is used to identify scope	0	
Option 2	It authorizes the existence of a project	CORRECT OPTION	
Option 3	It is a bidding document	0	
Option 4	It is used to rank the risks	0	
Q. 7	The project charter should be issued by whom?	M	
Option 1	The CFO	0	
Option 2	The head of the performing organization	0	
Option 3	A manager external to the project	CORRECT OPTION	
Option 4	One or more functional managers	0	
Q. 8	Pareto Chart helps you find:	M	
Option 1	Cause of variation	0	
Option 2	Cause of deviation	0	
Option 3	Minor sources creating the majority of problems	CORRECT OPTION	
Option 4	Majority of causes creating the minority of problems	0	

Q. 9	You have created the project charter but could not get it approved by senior management. Your manager and his boss have asked you to begin the project anyway. Which of the following actions is the best thing to do?	M	
Option 1	Focus on other projects that have a signed charter.	0	
Option 2	Update your Project Risk Log.	0	
Option 3	Show your manager the impact of proceeding without approval.	CORRECT OPTION	
Option 4	Start work on critical path tasks.	0	
Q. 10	Project selection is the process of ----	M	
Option 1	Implement all the necessary objectives of the parent organization will be achieve	0	
Option 2	Evaluating proposed projects or groups of projects, and then choosing to implement some set of them so that the objectives of the parent organization will be achieve	CORRECT OPTION	
Option 3	Implement some set of the objectives.	0	
Option 4	Selecting the groups of projects, and then to implement all of them so that the objectives of the parent organization will be achieve	0	
Q. 11	Which contract is considered most risky for the bidders?	M	
Option 1	Fixed Price	CORRECT OPTION	
Option 2	CPAF	0	
Option 3	Time & Material	0	
Option 4	Cost Reimbursable	0	
Q. 12	A project that has a negative cost variance and an SPI less than 1.0 means that the project is:	M	
Option 1	Over-budget and ahead of schedule	0	
Option 2	Under-budget and ahead of schedule	0	
Option 3	Over-budget and behind schedule	CORRECT OPTION	
Option 4	Under-budget and behind schedule	0	
Q. 13	Earned Value Analysis is used to measure performance based on following parameters:	M	
Option 1	Scope , Cost and Schedule	CORRECT OPTION	
Option 2	Scope and Cost	0	
Option 3	Scope and Schedule	0	
Option 4	Cost and Schedule	0	
Q. 14	What does the Schedule Performance Index (SPI) say about the project?	M	
Option 1	It says whether you are overspending or under-spending	0	
Option 2	It says whether you are ahead of or behind schedule	CORRECT OPTION	
Option 3	It says whether your process is under control or not	0	
Option 4	Specifies the control limits of the process	0	
Q. 15	Which of the following statements are not true regarding the Scope Management Plan ?	M	
Option 1	Provides guidance on how the Project Scope will be verified.	0	
Option 2	Provides guidance regarding the enterprise environmental factors and organizational process assets that would play a part.	0	
Option 3	Scope Management Plan is not a Part of the Project Management Plan.	CORRECT OPTION	
Option 4	Provides guidance on how the scope will be defined , documented monitored and controlled.	0	
Q. 16	If the planned value (PV) is \$275,000 and the earned value (EV) is \$300,000, the schedule variance (SV) is:	M	
Option 1	Negative 25000 USD	0	
Option 2	25,000 USD	CORRECT OPTION	
Option 3	575,000 USD	0	
Option 4	125,000 USD	0	
Q. 17	Money spent during a specific time period is known as:	M	

Option 1	Budgeted Cost	0	
Option 2	Planned Value	0	
Option 3	Actual Cost	CORRECT OPTION	
Option 4	Earned Value	0	
Q. 18	You are in charge of a project to build a bridge across a river. You are midway through the project. However due to changes in environmental laws the project can no longer proceed and would need to be terminated. Executive management has asked you to document the level of work completed for the project. This would be done in which of the processes ?	M	
Option 1	Project charter	0	
Option 2	Contract closure	0	
Option 3	Scope Verification	CORRECT OPTION	
Option 4	Project Closure	0	
Q. 19	A project is overbudget when	M	
Option 1	CPI > 1	0	
Option 2	SPI > 1	0	
Option 3	CPI and SPI > 1	0	
Option 4	CPI less than 1	CORRECT OPTION	
Q. 20	Project terminated due to conflict in senior management is called	M	
Option 1	Cross cultural termination	0	
Option 2	Senescence terminations	0	
Option 3	Political termination	CORRECT OPTION	
Option 4	Non political termination	0	
Q. 21	We demonstrate transparency in our decision-making process.	M	
Option 1	Respect Mandatory standard	0	
Option 2	Honesty Mandatory standard	0	
Option 3	Fairness aspirational standard	CORRECT OPTION	
Option 4	Responsibility Mandatory standard	0	
Q. 22	Project termination due to non cooperation among different culture groups is called	M	
Option 1	Non political termination	0	
Option 2	Cross cultural termination	CORRECT OPTION	
Option 3	Senescence terminations	0	
Option 4	Political termination	0	
Q. 23	We conduct ourselves in a professional manner, even when it is not reciprocated.	M	
Option 1	Respect Aspirational standard	CORRECT OPTION	
Option 2	Responsibility Mandatory standard	0	
Option 3	Honesty Mandatory standard	0	
Option 4	Respect Mandatory standard	0	
Q. 24	Virtual team failure is directly related to the difficulties of building	M	
Option 1	negative relationship	0	
Option 2	Trust	CORRECT OPTION	
Option 3	Partnership	0	
Option 4	Affection	0	
Q. 25	Virtual team is dispersed	M	
Option 1	Geographically	CORRECT OPTION	
Option 2	Physically	0	
Option 3	Technically	0	
Option 4	Mentally	0	

Online Examination, University of Mumbai

Department: All
Revision: R2016
Semester: 8
Subject: Environmental Management (ILO8029)
Date of Examination: 2020-10-17

Q. 1	Which of the following rivers is called the world's most polluted river?	M
Option 1	Cauvery River	0
Option 2	Yamuna River	0
Option 3	Ganga River	CORRECT OPTION
Option 4	Chenab River	0
Q. 2	Which one is the correct food chain?	M
Option 1	Phytoplankton → Zooplankton → Fish	CORRECT OPTION
Option 2	Zooplankton → Phytoplankton → Fish	0
Option 3	Zooplankton → Protozoans → Fish	0
Option 4	Grass → Fish → Zooplankton	0
Q. 3	Sustainable development can be thought of in terms of three spheres i.e.	M
Option 1	environment, economy and ecology	0
Option 2	environment, economy and equity	0
Option 3	environment, ecology and society	0
Option 4	environment, economy and society	CORRECT OPTION
Q. 4	Which of the following is not a waterborne disease?	M
Option 1	Measles	CORRECT OPTION
Option 2	Typhoid	0
Option 3	Cholera	0
Option 4	Hepatitis	0
Q. 5	Measuring BOD (biological oxygen demand) is primarily used for	M
Option 1	Estimating the quantity of organic matter in sewage water	CORRECT OPTION
Option 2	Determine the level of dissolved oxygen	0
Option 3	Determine rate of fish growth in sea water	0
Option 4	Estimating the types of microbes	0
Q. 6	Which of the following is a possible producer in an ecosystem?	M
Option 1	Plants	CORRECT OPTION
Option 2	Human beings	0
Option 3	Fish	0
Option 4	Animals	0
Q. 7	Which of the following conceptual components of the environment are effective transporters of matter?	M
Option 1	Atmosphere and lithosphere	0
Option 2	Atmosphere and hydrosphere	CORRECT OPTION
Option 3	Lithosphere and biosphere	0
Option 4	Hydrosphere and lithosphere	0
Q. 8	The developed countries consume how much percent of energy?	M
Option 1	30 Percent	CORRECT OPTION
Option 2	70 Percent	0
Option 3	20 Percent	0
Option 4	60 Percent	0

Q. 9	Food chain starts with	M
Option 1	Producer	CORRECT OPTION
Option 2	Omnivores	0
Option 3	Carnivores	0
Option 4	Herbivores	0
Q. 10	A promising direction towards sustainable development is to design systems that are	M
Option 1	flexible and reversible	CORRECT OPTION
Option 2	inflexible and irreversible	0
Option 3	inflexible and reversible	0
Option 4	flexible and irreversible	0
Q. 11	Which of the following parameter of light is NOT required by plants to grow?	M
Option 1	Color of light	CORRECT OPTION
Option 2	Duration of light	0
Option 3	Intensity of light	0
Option 4	Wavelength of light	0
Q. 12	Overgrazing results in:	M
Option 1	Productive soils	0
Option 2	Fertile soil	0
Option 3	Soil erosion	CORRECT OPTION
Option 4	Retention of useful species	0
Q. 13	Why plastics are difficult to recycle	M
Option 1	as it is hard material	0
Option 2	as it has different types of polymer resins	CORRECT OPTION
Option 3	due to different sizes of plastics	0
Option 4	it is very adhesive in nature	0
Q. 14	Why the recycled paper is banned for use in food containers?	M
Option 1	Because paper can be used only one time	0
Option 2	Because it creates a lot of spaces	0
Option 3	Because it creates contamination	CORRECT OPTION
Option 4	Because paper is very thick and can't cover the food containers	0
Q. 15	What does Liming of Soil mean	M
Option 1	Application of magnesium and calcium rich substances to soil	CORRECT OPTION
Option 2	Erosion of calcium carbonate(lime) zones in soil	0
Option 3	adding lime water in acid rain prone areas	0
Option 4	Excessive growth of lemon trees in acid rain regions	0
Q. 16	Which of the following data is not required for hazard identification?	M
Option 1	Estimation of risk	CORRECT OPTION
Option 2	Affected population	0
Option 3	Contaminant levels	0
Option 4	Land use	0

Q. 17	The most important agents for Ozone depletion are	M
Option 1	Nuclear Fallout	0
Option 2	CFC's	CORRECT OPTION
Option 3	Nitrous Oxide	0
Option 4	Methane	0
Q. 18	Which of the following can be recycled many times?	M
Option 1	Plastic	0
Option 2	Aluminum	CORRECT OPTION
Option 3	Wood	0
Option 4	Organic materials	0
Q. 19	What is the main use of Nuclear Energy	M
Option 1	To use it for alternate source of Energy	CORRECT OPTION
Option 2	To waste the excessive energy	0
Option 3	To kill the enemy nation	0
Option 4	To cause mutation for people who are working	0
Q. 20	The natural place of an organism is known as	M
Option 1	Habit	0
Option 2	Habitat	CORRECT OPTION
Option 3	Niche	0
Option 4	Biome	0
Q. 21	In the food relationship where the tiger eats the deer and the deer eats plants, which of the following condition is true?	M
Option 1	Tiger is the prey	0
Option 2	Deer is the prey	CORRECT OPTION
Option 3	Deer is predator	0
Option 4	Tiger is primary consumer	0
Q. 22	In which of the following form the waste products are not discharged into the biosphere	M
Option 1	Ionosphere	0
Option 2	Biosphere	CORRECT OPTION
Option 3	Lithosphere	0
Option 4	Mesosphere	0
Q. 23	The upper part of an aquatic ecosystem contains	M
Option 1	Plankton	CORRECT OPTION
Option 2	Hankton	0
Option 3	Nekton	0
Option 4	Benthos	0
Q. 24	The set of an ecosystem is called as	M
Option 1	structure	0
Option 2	climate	0
Option 3	subsystem	0
Option 4	Biome	CORRECT OPTION
Q. 25	Animals directly or indirectly depend for their food, protection & shelter on	M
Option 1	plants	CORRECT OPTION
Option 2	other animals	0
Option 3	other animals	0
Option 4	other animals	0

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Online Examination, University of Mumbai

Department: All
Revision: R2016
Semester: 8
Subject: Entrepreneurship Development & Management (ILO8023)
Date of Examination: 2020-10-17

Q. 1	One of the disadvantages of a franchise business for a franchisee is,	M
Option 1	Lack of brand identity.	0
Option 2	Lack of training	0
Option 3	Lack of market availability	0
Option 4	Lack of independence.	CORRECT OPTION
Q. 2	The oldest form of business organization is,	M
Option 1	cooperative society	0
Option 2	sole proprietorship.	CORRECT OPTION
Option 3	public limited company	0
Option 4	joint stock company	0
Q. 3	Drone entrepreneurs are those who,	M
Option 1	immediately copy the new inventions made by the innovative entrepreneurs.	0
Option 2	are reluctant to change since they are very conservative and do not want to make any changes	CORRECT OPTION
Option 3	invent the new ideas, new products, new production methods or processes.	0
Option 4	do not initiate any inventions but follow only successful idea.	0
Q. 4	Which one of the following actions by an entrepreneur is most likely to contribute the creativity?	M
Option 1	Risk taking	0
Option 2	Job creation and employment	0
Option 3	Raising of finance	0
Option 4	New product development	CORRECT OPTION
Q. 5	Women Entrepreneurs who are trained through specialized programmes to set up their own enterprise are known as	M
Option 1	Chance Entrepreneurs	0
Option 2	Affluent Entrepreneurs	0
Option 3	Created Entrepreneurs	CORRECT OPTION
Option 4	Rural Entrepreneurs	0
Q. 6	Government has facilitated which of the following to provide financial assistance to women entrepreneurs	M
Option 1	Financial schemes	CORRECT OPTION
Option 2	Industrial estates	0
Option 3	Training institutes	0
Option 4	Financial Advisors	0
Q. 7	The social entrepreneurship module differs from an NGO in this manner	M
Option 1	Create a social benefit	0
Option 2	Solve social issues	0
Option 3	Set up to bring some change in society	0

Option 4	Raise funds through charity	CORRECT OPTION
Q. 8	Which of the following is a pull factor for women entrepreneurs?	M
Option 1	Financial Problems	0
Option 2	Death of a breadwinner	0
Option 3	Unfortunate family circumstances	0
Option 4	Urge to establish identity and gain economic independence	CORRECT OPTION
Q. 9	What facilitates the development of entrepreneurial skills at college and institute level?	M
Option 1	ECell	CORRECT OPTION
Option 2	NIESBUD	0
Option 3	FIWE	0
Option 4	SIDBI	0
Q. 10	The objective of Entrepreneurship Development programme is not to	M
Option 1	To strengthen entrepreneurial quality/ motivation	0
Option 2	To develop entrepreneurial culture	0
Option 3	To provide loans to budding entrepreneurs	CORRECT OPTION
Option 4	To accelerate the process of industrial and economic development	0
Q. 11	What is e-NAM?	M
Option 1	Electronic registry for documents	0
Option 2	Pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.	CORRECT OPTION
Option 3	Ecommerce website for FMCG	0
Option 4	Election portal of India	0
Q. 12	ABC is an enterprise where investment in plant and machinery does not exceed Rs. 25 lakh. What will you classify into?	M
Option 1	micro	CORRECT OPTION
Option 2	medium	0
Option 3	small	0
Option 4	large	0
Q. 13	SIDBI stands for	M
Option 1	Small and Intermediate Development Bank of India	0
Option 2	Samarth Indian Debit bank for Industries	0
Option 3	Small International Development Bank of India	0
Option 4	Small Industries Development Bank of India	CORRECT OPTION
Q. 14	Reverse logistics is required because	M
Option 1	cash flow	0
Option 2	Goods are defective	CORRECT OPTION
Option 3	by law	0
Option 4	increase efficiency	0
Q. 15	Which of the following is not a key aspect for the facilitation of the MSME Sector as announced under the support and outreach programme, launched by the Prime Minister of India?	M
Option 1	access to credit	0
Option 2	technology upgradation	0
Option 3	access to market	0
Option 4	tax incentives	CORRECT OPTION

Q. 16	What is not a Function of National Board for Micro, Small and Medium Enterprises	M
Option 1	Providing techno-economic and managerial consultancy	0
Option 2	Developing human resources through training and skill up gradation	0
Option 3	Advising the Government in policy formulation	0
Option 4	Provide loans to the enterprise	CORRECT OPTION
Q. 17	In production sector, a small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed _____	M
Option 1	Rs 10 crore	0
Option 2	Rs 2 crore	0
Option 3	Rs 5 crore	CORRECT OPTION
Option 4	Rs 3 crore	0
Q. 18	A _____ encompasses all activities associated with the flow and transformation of goods from the raw material stage, through to the end user, as well as the associated information flows	M
Option 1	production line	0
Option 2	marketing channel	0
Option 3	supply chain	CORRECT OPTION
Option 4	warehouse	0
Q. 19	Activity of Indian Trade promotion organization	M
Option 1	Finance SMEs	0
Option 2	Arrange Raw material	0
Option 3	Single window for all permissions	0
Option 4	Establishing durable contacts between Indian suppliers and overseas buyers.	CORRECT OPTION
Q. 20	What do OAS stand for?	M
Option 1	outcomes, advantage, and scope	0
Option 2	objective, advantage, and success	0
Option 3	objective, adventure, and scope	0
Option 4	objective, advantage, and scope	CORRECT OPTION
Q. 21	_____ is used to plan a project by defining each necessary step in it and estimating how long each will take.	M
Option 1	critical path method	CORRECT OPTION
Option 2	critical progression method	0
Option 3	critical strategic plan	0
Option 4	key success indicators	0
Q. 22	What is the is the process of selling subsidiary assets, investments, or divisions of a company in order to maximize the value of the parent company called	M
Option 1	Divestment	CORRECT OPTION
Option 2	Harvest	0
Option 3	investment	0
Option 4	consolation	0
Q. 23	The process of transferring leadership to the next generation is known as:	M
Option 1	community property.	0
Option 2	power sharing.	0
Option 3	succession	CORRECT OPTION
Option 4	natural division of responsibility.	0
Q. 24	Who is wilfull defaulter	M

Option 1	if the company has not met repayment obligations despite having the capacity to do so	CORRECT OPTION
Option 2	if the company has no money to repay obligations	0
Option 3	if the company has borrowed money from market to repay banks	0
Option 4	if the company has declared that it has no money to repay obligations	0
Q. 25	identify the false statement	M
	A takeover occurs when one company makes a successful bid to assume control of or acquire another.	
Option 1	A takeover occurs when one company makes a successful bid to assume control of or acquire another.	0
Option 2	Takeovers are also commonly done through the merger and acquisition process.	0
Option 3	Takeover can be done through IPO	CORRECT OPTION
Option 4	Takeovers can be done by purchasing a majority stake in the target firm.	0