Railway Recruitment Cell		
Post Name : 06-Mechanical and allied Engineering	Exam Code : MASSYPMH	
Exam Date : 19-06-2024	Exam Time : 9:30AM	
Questio	on No. 1	
Which of the following laws states that equal volumes of all gases, at the same temperature and pressure, contain equal number of molecules?		
A) Charles' law	B) Boyle's law	
C) Gay-lussac law	D) Avogadro's law	
Answer Key: D		
Questic	on No. 2	
The melting point of mild steel is approximately-		

B) 800°C

D) 1450°C

B) Scavenging

D) Detonation

B) Carriers

D) Face plate

B) Poka-yoke

D) Kaizen

B) SiC

D) Diamond

Question No. 3

The process of removing the burnt gases in IC engines from the combustion chamber of the engine cylinder is known

Question No. 4

Question No. 5

Question No. 6

Which of the following devices is used for holding and rotating a hollow workpiece?

A) 600°C

C) 3000°C

as-

Answer Key: D

A) Supercharging

C) Polymerisation

Answer Key: B

A) Mandrel

C) Catch plate

Answer Key: A

A) Taguchi diagram

Answer Key: C

A) Fe_3O_4

C) CBN

C) Cause and effect diagram

A fishbone diagram is also known as-

Which of the following is the softest abrasive?

Answer Key: A		
Questio	n No. 7	
Which of the following is/are the objective(s) of Normalising	ŋ?	
A) To enhance the mechanical properties	B) To remove internal stresses	
C) To improve the machinability	D) All of the options	
Answer Key: D		
Questio	n No. 8	
The Hoop stress developed in thin cylinders is given by- (where P = Internal pressure, d = Internal diameter and t =\	wall thickness)	
A) Pd/t	B) Pd/2t	
C) Pd/3t	D) Pd/4t	
Answer Key: B		
Questio	n No. 9	
Glazing in grinding wheels can be decreased by-		
A) Using a harder wheel or by increasing the wheel speed	B) Using a softer wheel or by decreasing the wheel speed	
C) Using a harder wheel or by decreasing the wheel speed	D) Using a softer wheel or by increasing the wheel speed	
Answer Key: B		
Question	n No. 10	
The grinding of long, slender shafts or bars is usually done	by-	
A) In-feed grinding	B) Through-feed grinding	
C) End-feed grinding	D) All of the options	
Answer Key: B		
Question	n No. 11	
When soft materials are ground, metal particles getting clogged between abrasive particles is known as-		
A) Glazing	B) Loading	
C) Dressing	D) Truing	
Answer Key: B		
Question No. 12		
A simply supported beam carries a UDL over its whole span. The bending moment diagram would be made of-		
A) Straight lines	B) Parabolic curves	
C) Combination of straight lines and parabolic curves	D) None of the options	
Answer Key: B		
Question No. 13		
Which of the following processes is a constant-volume process?		

A) Isochoric process	B) Isentropic process	
C) Isobaric process	D) Isothermal process	
Answer Key: A		
Questio	<u>n No. 14</u>	
The torque required to produce a twist of one radian per un	nit length of the shaft is known as-	
A) Polar modulus	B) Torsional rigidity	
C) Flexural rigidity	D) Maximum twisting moment	
Answer Key: B		
Questio	n No. 15	
The property of a fluid by which molecules of different flu called-	ids are attracted to each other when they are in contact is	
A) Adhesion	B) Cohesion	
C) Viscosity	D) Compressibility	
Answer Key: A		
Questio	n No. 16	
A wound spring of the watch possesses-		
A) Heat energy	B) Kinetic energy	
C) Potential energy	D) Electric energy	
Answer Key: C		
Questio	n No. 17	
The amount of float on an activity, that does not affect float	t on preceding or succeeding activities is known as-	
A) Total float	B) Free float	
C) Interfering float	D) Independent float	
Answer Key: D		
Questio	n No. 18	
If two forces of 6 kN and 8 kN act at right angles to each other, then the resultant force will be-		
A) 10 kN	B) 28 kN	
C) 41 kN	D) 14 kN	
Answer Key: A		
Questio	n No. 19	
Darcy's friction factor in terms of the Reynolds number (Re	e) for laminar flow in circular pipes is-	
A) 16/Re	B) 32/Re	
C) 64/Re	D) 128/Re	
Answer Key: C		

Question	n No. 20	
Which of the following losses is NOT a minor loss for a flu	id flowing through a pipe?	
A) Loss due to sudden contraction	B) Loss due to sudden enlargement	
C) Loss due to obstruction in flow	D) Loss due to friction	
Answer Key: D		
Questio	n No. 21	
Varignon's theorem is also known as the principle of-		
A) Moments	B) Forces	
C) Stress	D) Strain	
Answer Key: A		
Questio	n No. 22	
When starting a centrifugal pump, the delivery valve is kep	ot-	
A) Fully open	B) Fully closed	
C) Half open	D) Less than half open	
Answer Key: B		
Questio	n No. 23	
The maximum deflection of a fixed beam of length (L) carr	ying a central point load (W) is-	
A) (WL ³)/(48 EI)	B) (WL ³)/(96 EI)	
C) (WL ³)/(192 EI)	D) (WL ³)/(384 EI)	
Answer Key: C		
Questio	<u>n No. 24</u>	
In a refrigeration system, the expansion device is connected between the-		
A) Compressor and condenser	B) Condenser and receiver	
C) Receiver and evaporator	D) Evaporator and compressor	
Answer Key: C		
Question No. 25		
is the operation for making threads in a hole, or producing internal threads in a drilled hole.		
A) Reaming	B) Boring	
C) Tapping	D) Counter-sinking	
Answer Key: C		
Question No. 26		
Which of the following electrodes is used in submerged arc welding?		
A) Bare electrode	B) Light coated electrode	

D) Heavily coated electrode

C) Medium coated electrode

Answer Key: A		
Question	No. 27	
Which of the following gases is NOT used as a shielding gas	s in arc welding?	
A) Carbon dioxide	B) Helium	
C) Argon	D) Carbon monoxide	
Answer Key: D		
Question	No. 28	
In reverse polarity welding, the electrode holder is-		
A) Earthed and work is connected to positive	B) Connected to negative and work connected to positive	
C) Connected to positive and work connected to negative	D) Earthed and work is connected to negative	
Answer Key: C		
Question	No. 29	
The ratio of oxygen to acetylene in the neutral flame is-		
A) 1:1	B) 2:1	
C) 1:3	D) 3:1	
Answer Key: A		
Question	No. 30	
E6010 is a tensile strength electrode.		
A) 60,000 psi	B) 10,000 psi	
C) 61,000 psi	D) 7,000 psi	
Answer Key: A		
Question	No. 31	
Which type of paint is manufactured by dissolving asphalt or	r vegetable bitumen in oil or petroleum?	
A) Enamel Paint	B) Cement paint	
C) Bituminous paint	D) Synthetic rubber paint	
Answer Key: C		
Question	No. 32	
In gas welding, the inclination of the blow pipe with respect	to the plate in Leftward welding is-	
A) 30° to 40°	B) 40° to 50°	
C) 60° to 70°	D) 90° to 100°	
Answer Key: C		
Question No. 33		
The distance from the joint root to the toe of the weld is-		
A) Leg of a fillet weld	B) Face of a fillet weld	

C) Actual throat	D) Effective throat	
Answer Key: A		
Question	n No. 34	
Which of the following tools is a multi-point cutting tool?		
A) Slotting tool	B) Boring tool	
C) Broaching tool	D) Both slotting and boring tools	
Answer Key: C		
Question	n No. 35	
The ignition quality of diesel oil is expressed by the-		
A) Cetane number	B) Octane number	
C) Calorific value	D) Both the octane number and calorific value	
Answer Key: A		
Question	n No. 36	
Which of the following is an example of an isolated system	?	
A) A thermos flask	B) A pressure cooker	
C) Boiling water without a lid	D) A cup of hot coffee	
Answer Key: A		
Question	n No. 37	
Stainless steel owes its corrosion resistance due to the pre	sence of-	
A) Silicon	B) Chromium	
C) Cobalt	D) Manganese	
Answer Key: B		
Question	n No. 38	
Grinding is used for-		
A) Enlarging the holes	B) Forming	
C) Surface finishing	D) Lancing	
Answer Key: C		
Question No. 39		
The G-ratio varies from in fine grinding.		
A) 10.0 to 20.0	B) 25.0 to 50.0	
C) 1.0 to 5.0	D) 0.1 to 0.5	
Answer Key: B		
Question No. 40		
Which of the following grain sizes is considered as very fine grain?		

C) 120	D) 400	
Answer Key: D		
Question	ı No. 41	
In PERT, the shortest possible time required for the comple	tion of activity is-	
A) Optimistic time	B) Most likely time	
C) Pessimistic time	D) Unlikely time	
Answer Key: A		
Question	ı No. 42	
Which of the following statements is TRUE about CPM and	PERT?	
A) PERT is not concerned about time	B) CPM is activity oriented	
C) CPM is not a deterministic model	D) PERT is not event oriented	
Answer Key: B		
Question	<u>1 No. 43</u>	
Which of the following states that, "If a body is in equilibrium, under the action of three concurrent forces, each force is proportional to the sine of the angle between the other two forces"?		
A) Parallelogram law of forces	B) Transmissibility of forces	
C) Lami's theorem	D) Varignon's theorem	
Answer Key: C		
Question	ı No. 44	
The force applied on a body of mass 236 kg to produce an	acceleration of 4 m/s ² is-	
A) 59 N	B) 118 N	
C) 472 N	D) 944 N	
Answer Key: D		
Question	ı No. 4 <u>5</u>	
Moment of inertia of a rectangular section having width (b) and depth (d) about an axis passing through its centre of gravity and parallel to the depth, is-		
A) $db^3/12$	B) bd ³ /12	
C) $db^3/36$	D) bd ³ /36	
Answer Key: A		
Question No. 46		
How long should a steel component be heat treated before nitriding?		
A) 5 – 20 hours	B) 21 – 100 hours	
C) 100 – 200 hours	D) 300 – 500 hours	

B) 54

A) 14

Answer Key: B		
Question	า No. 47	
Which annealing process is carried out in a heavy casting t	o make austenitic grains homogeneous?	
A) Diffusion annealing	B) Spherodise annealing	
C) Process annealing	D) Full annealing	
Answer Key: A		
Question	n No. 48	
Which of the following is a slow rise of plastic deformation material?	under the action of stresses below the yield strength of the	
A) Brittle fracture	B) Ductile fracture	
C) Creep	D) Fatigue	
Answer Key: C		
Question	า No. 49	
The area moment of inertia of a semi-circular region having	g a diameter 'd' about its diametric axis on the base is-	
A) $\pi d^2 / 36$	B) $\pi d^4 / 64$	
C) $\pi d^2 / 256$	D) $\pi d^4 / 128$	
Answer Key: D		
Question	n No. 50	
The Gantt chart is a type of chart which illustrates the-		
A) Project schedule	B) Assignable causes of variation in a process	
C) Common causes of variation in a process	D) Inventory status	
Answer Key: A		
Question	n No. 51	
Which of the following is used to check the diameters of ho	les?	
A) Plug gauge	B) Fillet gauge	
C) Slip gauge	D) Standard screw pitch gauge	
Answer Key: A		
Question No. 52		
What is the angle between the two surfaces of an angle plate?		
A) 45°	B) 120°	
C) 90°	D) 180°	
Answer Key: C		

Question No. 53

Stress at any point in a material is defined as-

C) Modulus of rigidity	D) Young's modulus of elasticity per unit strain	
Answer Key: B		
Questio	<u>n No. 54</u>	
The efficiency of a heat engine working on the Carnot's cy	cle between 900°C and 300°C will be-	
A) 80%	B) 45.6%	
C) 66.66%	D) 51.15%	
Answer Key: D		
Questio	n No. 55	
In a polytropic process, if the value of n = 1, then the proce	ess will be a/an-	
A) Reversible process	B) Irreversible process	
C) Adiabatic process	D) Isothermal process	
Answer Key: D		
Question No. 56		
Gas entrapment during the solidification of the weld bead is termed as-		
A) Spatter	B) Porosity	
C) Distortion	D) Overlapping	
Answer Key: B		
Questio	n No. 57	
Which of the following is the full form of PERT in network t	echniques?	
A) Program Evaluation and Review Technique	B) Program Examination and Revising Technique	
C) Program Examination and Review Technique	D) Program Evaluation and Revising Technique	
Answer Key: A		
Questio	n No. 58	
In a small engineering project, for an activity, the optimistic time is 2 minutes, the most likely time is 5 minutes and the pessimistic time is 8 minutes. What is the expected time of the activity?		
A) 1 minute	B) 5 minutes	
C) 8 minutes	D) 18 minutes	
Answer Key: B		
Questio	n No. 59	
Sherardising is a corrosion resistant coating of	on the surface of iron.	
A) Nickel	B) Zinc	
C) Copper	D) Aluminium	
Answer Key: B		

B) Resisting force per unit area

A) Load per unit time

Question No. 60			
The chemical for	ormula for cementite is-		
A) FeC		B)	Fe ₂ C ₃
C) Fe ₃ C		D)	FeC ₃
Answer Key:	C		
	Question	<u>ո N</u>	<u>o. 61</u>
If the zero of th	ne Vernier scale is on the right of the zero of	the	main scale, then the-
A) Zero error w	vill be negative	B)	Zero correction will be positive
C) Zero error positive	will be negative and zero correction will be	D)	Zero error will be positive
Answer Key:	D		
Note:	Translation error in Tamil and hence mark tamil.	is	awarded to candidates who have taken the exam in
	Question	<u>1 No</u>	o. 62
Pyrometer is a	device which is related to-		
A) Density mea	asurements	B)	Pressure measurements
C) Temperature	e measurements	D)	Volume measurements
Answer Key:	C		
	Question	1 No	o. 63
Which type of g	gear will be used for non-intersecting perper	dic	ular shafts?
A) Helical gear	rs .	B)	Spur gears
C) Hypoid gear	rs	D)	Herringbone gears
Answer Key:	C		
	Question	<u>1 N</u>	<u>o. 64</u>
The size of an abrasive particle is usually expressed in terms of-			
A) Sieve numb	per	B)	Grashof number
C) Prandtl num	nber	D)	Nusselt number
Answer Key:	A		
	Question	<u>1 N</u>	<u>o. 65</u>
In a fixed bear formula-	m having a uniformly distributed load over	the	e whole span, the moments will be calculated by the
A) WL ² / 12		B)	WL ³ / 8
C) WI 2 / 8		D)	WL ³ / 12

Answer Key: A

Question N	<u>o. 66</u>	
In a particular material, if the modulus of rigidity is equal to the	e bulk modulus, then the Poisson's ratio will be-	
A) 1/8	1/4	
C) 1/2 D)	1	
Answer Key: A		
Question No.	<u>o. 67</u>	
Which of the following generally does NOT make use of lead?		
A) Ammunition B)	Batteries	
C) Solder D)	GI sheet	
Answer Key: D		
Question N	o. 68	
The cutting tool moving in a vertical reciprocating motion in a machine tool is called the-		
A) Slotter B)	Lathe	
C) Planer D)	Shaper	
Answer Key: A		
Question No.	o. 69	
The variation in the volume of a liquid with the variation of pres	ssure is called its-	
A) Surface tension B)	Compressibility	
C) Capillarity D)	Viscosity	
Answer Key: B		
Question No.	o. 70	
Which of the following statements is FALSE with regard to sha	per?	
A) Job is held rigidly on a fixed bed B)	The cutting tool remains stationary	
C) The tool is mounted on the tool post fitted at the end of D) ram	The cutting stroke is slower than the idle stroke	
Answer Key: B		
Question No. 71		
Which of the following are constituents of phosphor-bronze?		
A) Nickel, copper and cobalt B)	Copper, zinc and manganese	
C) Copper, tin and phosphorus D)	Aluminium, copper and nickel	
Answer Key: C		
Question No. 72		
Which of the following conditions is related to Clearance fit?		
A) Hole > Shaft B)	Hole < Shaft	

C) Hole = Shaft	D) All of the options	
Answer Key: A		
Question	n No. 73	
Which of the following is known as the Hermaphrodite calip	er?	
A) Outside caliper	B) Inside caliper	
C) Transfer caliper	D) Odd-leg caliper	
Answer Key: D		
Question	n No. 74	
The least count of a metric Vernier calliper having 25 divisi the main scale (1 main scale division = 0.5 mm) is-	ons on the Vernier scale, matching with the 24 divisions of	
A) 0.005 mm	B) 0.01 mm	
C) 0.02 mm	D) 0.1 mm	
Answer Key: C		
Question	n No. 75	
What does the linear momentum of a body equal?		
A) Speed x time	B) Mass x Velocity	
C) Force x Distance	D) Displacement x Distance	
Answer Key: B		
Question	n No. 76	
The heat transfer in gases and liquids takes place by-		
A) Conduction	B) Radiation	
C) Convection	D) All of the options	
Answer Key: C		
Question	n No. 77	
What is the apparent weight of a man, if the acceleration of lift is zero?		
A) Apparent weight is equal to normal weight	B) Apparent weight is greater than normal weight	
C) Apparent weight is less than normal weight	D) Zero weight	
Answer Key: A		
Question No. 78		
The value of Poisson's ratio of lead lies in the range of-		
A) 0.12 – 0.20	B) 0.40 – 0.45	
C) 0.55 – 0.69	D) 0.75 – 0.82	

Question No. 79

Answer Key: B

If 10 \mbox{m}^{3} of mercury weighs 136 x 10 4 N, then calculate its	specific weight.	
A) 136000 N/m ³	B) 13.6 N/m ³	
C) 0.136 N/m ³	D) 1.36 N/m ³	
Answer Key: A		
Questio	n No. 80	
In actual machines, which of the following is CORRECT?		
A) Mechanical advantage is equal to velocity ratio	B) Mechanical advantage is greater than velocity ratio	
C) Mechanical advantage is less than velocity ratio	D) Mechanical advantage is unity	
Answer Key: C		
Questio	n No. 81	
Miter gears are a type of-		
A) Spur gears	B) Helical gears	
C) Herringbone gears	D) Bevel gears	
Answer Key: D		
Questio	n No. 82	
Which of the following is a type of solid state welding?		
A) Ultrasonic welding	B) Thermit welding	
C) Atomic hydrogen welding	D) Laser beam welding	
Answer Key: A		
Questio	n No. 83	
Which of the following electrodes falls into the flat and hori	zontal welding position category?	
A) E6010	B) E6011	
C) E6012	D) E7024	
Answer Key: D		
Questio	n No. 84	
In a centrifugal pump casing, the flow of water leaving the impeller is-		
A) Rectilinear flow	B) Centrifugal flow	
C) Radial flow	D) Free vortex flow	
Answer Key: D		
Question No. 85		
VED analysis refers to the classification of inventory items	as-	
A) Vast, Essential and Demand items	B) Vital, Efficient and Difficult items	
C) Valid, Easy and Difficult items	D) Vital, Essential and Desirable items	
Answer Key: D		

Questio	<u>III INO. 80</u>
A PERT activity has an optimistic time estimate of 3 day time estimate of 10 days. What is the expected time of this	s, a pessimistic time estimate of 8 days and a most likely activity?
A) 5 days	B) 7.5 days
C) 8 days	D) 8.5 days
Answer Key: D	
Questio	on No. 87
One watt is equal to-	
A) 0.1 joule/s	B) 1 joule/s
C) 10 joules/s	D) 100 joules/s
Answer Key: B	
Questio	n No. 88
The major application of an hydrometer is to determine-	
A) Relative humidity	B) Buoyancy force
C) Specific gravity of liquids	D) Viscosity of liquids
Answer Key: C	
Questio	on No. 89
The power transmitted through a pipe is the maximum when the loss of head due to friction is at the inlet of the pipe. (Total head is denoted by H)	
A) H/4	B) H/3
C) H/2	D) 2H/3
Answer Key: B	
Question No. 90	
Which of the following gauges is/are a GO-NO GO gauge?	
A) Plug gauge	B) Ring gauge
C) Snap gauge	D) All of the options
Answer Key: D	
Question No. 91	
Which of the following tools is used for straight line cutting of sheet metal?	
A) Snip	B) File
C) Punch	D) Stake
Answer Key: A	
Question No. 92	
The temperature which has the same value on both the Celsius and Fahrenheit scales is-	

B) -32°

A) -40°

C) -65°	D) -100°
Answer Key: A	
Que	estion No. 93
A is used to hold large, heavy and irreg between centres.	gular shaped workpieces which cannot be conveniently held
A) Driving plate	B) Face plate
C) Catch plate	D) Plain mandrel
Answer Key: B	
Que	estion No. 94
In ABC analysis, which of the following items have the	e lowest consumption value?
A) A items	B) B items
C) C items	D) Both A and B items
Answer Key: C	
Que	estion No. 95
Determine Young's modulus, when 2 N/m ² is applied to produce a strain of 0.5.	
A) 4 N/m ²	B) _{5 N/m²}
C) _{6 N/m²}	D) _{7 N/m²}
Answer Key: A	
Que	estion No. 96
Stick micrometers are used for measuring the-	
A) External diameter	B) Longer internal lengths
C) Longer external lengths	D) Shorter thickness
Answer Key: B	
Que	estion No. 97
Which of the following devices CANNOT be used to m	easure pressure?
A) Manometer	B) Piezometer
C) Bolometer	D) Bourdon gauge
Answer Key: C	
Que	estion No. 98
If the pressure below the nappe is negative, then the nappe is called-	
A) Free nappe	B) Depressed nappe
C) Clinging nappe	D) Fire nappe
Answer Key: B	
Question No. 99	

Ductile cast iron is produced by adding-	
A) Zirconium	B) Magnesium
C) Chromium	D) Manganese
Answer Key: B	
Question	No. 100
Which of the following metals has the highest melting point	?
A) Aluminium	B) Copper
C) Brass	D) Carbon steel
Answer Key: D	
Question	No. 101
How many languages are there in the Eighth Schedule of o	ur Constitution?
A) 12	B) 14
C) 16	D) 22
Answer Key: D	
Question	No. 102
Which of the following refers to memory in a computer?	
A) RAM	B) DSL
C) USB	D) LAN
Answer Key: A	
Question	No. 103
In which country's spacecraft did Rakesh Sharma travel int	o space?
A) Japan	B) Germany
C) Soviet Union	D) UK
Answer Key: C	
Question	No. 104
Which of the following is the unit of measurement of the "E	cological Footprint"?
A) Global hectare	B) Nanometer
C) Cubic ton	D) Hoppus cubic foot
Answer Key: A	
Question	No. 105
India's first hydro-engineering college is located in-	
A) Bilaspur	B) Kochi
C) Chandigarh	D) Visakhapatnam
Answer Key: A	

Question No. 100		
Identify the incorrectly matched pair.		
A) Rourkela - Odisha	B) Bhilai - Bihar	
C) Durgapur - West Bengal	D) Bhadravati - Karnataka	
Answer Key: B		
Questio	<u>n No. 107</u>	
Decomposition of domestic wastes under natural processe	es is called-	
A) Industrial pollution	B) Thermal pollution	
C) Biodegradable pollution	D) Non-biodegradable pollution	
Answer Key: C		
Questio	n No. 108	
What is the use of output devices?		
A) To store data	B) To scan data	
C) To view or print data	D) To input data	
Answer Key: C		
Questio	<u>n No. 109</u>	
Which of the following is/are the browser(s) developed and	d released by Apple Inc.?	
A) Internet Explorer	B) Mosaic	
C) Opera	D) Safari	
Answer Key: D		
Questio	n No. 110	
Microsoft PowerPoint is a-		
A) Database program	B) Spreadsheet program	
C) Word processing program	D) Presentation program	
Answer Key: D		
Question No. 111		
In water pollution, turbidity and water colour can be regard	ded as-	
A) Non-aesthetic pollutants	B) Aesthetic pollutants	
C) Both aesthetic and non-aesthetic pollutants	D) Non-visual pollution	
Answer Key: B		
Question No. 112		
What is the duration of seventh five-year plan?		
A) 1974–1978	B) 1985–1990	
C) 1992–1997	D) 1997–2002	

Answer Key: B		
Question N	No. 113	
Which of the following is a sedimentary bio-geo-chemical cyc	cle?	
A) Nitrogen cycle B) Carbon cycle	
C) Oxygen cycle) Phosphorus cycle	
Answer Key: D		
Question N	No. 114	
The world of non-living elements is called-		
A) Biotic B	a) Abiotic	
C) Biotic and Abiotic) None of the options	
Answer Key: B		
Question N	lo. 115	
Which type of malware infects your computer's hardware and firmware?		
A) Spider bot B	Rootkit	
C) Webkit) Keyloggers	
Answer Key: B		
Question N	No. 116	
Which of the following is a man-made cause of global warming	ng?	
A) Water vapour E	3) Volcanoes	
C) Chloroflurocarbons	0) Forest blazes	
Answer Key: C		
Question N	No. 117	
What is the result of the binary addition of the binary numbers (101001) ₂ and (010011) ₂ ?		
A) (111100) ₂ B	s) (010100) ₂	
C) (101110) ₂	0) (000111) ₂	
Answer Key: A		
Question N	No. 118	
Which of the following protocols is used to send messages through email?		
A) UDP B	s) SMTP	
C) SSH	D) DHCP	
Answer Key: B		
Question No. 119		
Which type of network enables communication between minuscule sensors and actuators?		
A) Storage Area Networks	s) Enterprise Private Networks	

C) Nanoscale Networks	D) Campus Area Networks	
Answer Key: C		
Question	No. 120	
Which of the following memory is implemented using the se	emiconductor chips?	
A) Secondary memory	B) Main memory	
C) Cache memory	D) Optical disks	
Answer Key: B		
Question	No. 121	
A is kind of a secret entry point into a program that allows anyone to gain access to any system without going through the usual security access procedures.		
A) Double door	B) Trap door	
C) Trojan horse	D) Logic bomb	
Answer Key: B		
Question	No. 122	
The Indian Government in 2024 introduced a new number calls, to help citizens easily identify legitimate calls	ing series for making service or transactional	
A) 260xxxxxxx	B) 160xxxxxxx	
C) 360xxxxxxx	D) 460xxxxxxx	
Answer Key: B		
Question	No. 123	
Which entity cracked down on gaming apps in May 202 prices in their games?	4 that mirrored virtual trading, simulating real-time stock	
A) Income Tax Department	B) RBI	
C) Ministry of Information Technology	D) SEBI	
Answer Key: D		
Question	No. 124	
Which of the following is NOT a natural source of air pollution?		
A) Pollen grains	B) Forest fires	
C) Vehicular emissions	D) Marshes	
Answer Key: C		
Question No. 125		
Where are Ozone holes predominantly found in the Earth?		
A) Poles	B) Equator	
C) Tropic of Cancer	D) Tropic of Capricorn	
Answer Key: A		

Questio	<u>11 NO. 120</u>	
Which of the following is NOT an air pollutant?		
A) Nitrogen	B) Hydrocarbons	
C) Chromium	D) Carbon dioxide	
Answer Key: A		
Questio	n No. 127	
What is the term for the process of using living organisms	to clean up or reduce environmental pollution?	
A) Over consumption	B) Soil erosion	
C) Green washing	D) Bioremediation	
Answer Key: D		
Questio	n No. 128	
Acid rain usually has a pH between-		
A) 11 and 14	B) 7 and 9	
C) 4.2 and 4.4	D) 8.8 and 12.3	
Answer Key: C		
Questio	n No. 129	
When was the Third Battle of Panipat fought?		
A) 1561	B) 1623	
C) 1671	D) 1761	
Answer Key: D		
Questio	n No. 130	
With which of the following dances is Rajendra Gangani a	ssociated?	
A) Bharatanatyam	B) Kuchipudi	
C) Kathak	D) Odissi	
Answer Key: C		
Question	n No. 131	
In which of the following years was the First Five-Year Pla	n launched?	
A) 1951	B) 1956	
C) 1961	D) 1965	
Answer Key: A		
Question No. 132		
With which of the following sports is Tiger Woods associated?		
A) Table tennis	B) Tennis	
C) Golf	D) Boxing	

Answer Key: C		
Question	No. 133	
Which of these is a hill station in Rajasthan?		
A) Kasauli	B) Mount Abu	
C) Panchgani	D) Nainital	
Answer Key: B		
Question	No. 134	
Which of the following industries is NOT covered in the Inde	ex of Eight Core Industries?	
A) Electricity	B) Crude Oil	
C) Natural Gas	D) Pharmaceuticals	
Answer Key: D		
Question	No. 135	
Ryder Cup is related to which sport?		
A) Polo	B) Golf	
C) Football	D) Tennis	
Answer Key: B		
Question	No. 136	
The common name of Sodium Hydrogen Carbonate is-		
A) Epsom salt	B) Milk of magnesia	
C) Baking soda	D) Common salt	
Answer Key: C		
Question No. 137		
Which element has the greatest tendency to attract electron	ns?	
A) Iron	B) Fluorine	
C) Boron	D) Sulphur	
Answer Key: B		
Question	No. 138	
The chemical formula of Perchloric acid is-		
A) HCIO	B) HCIO ₂	
C) HCIO ₃	D) HCIO ₄	
Answer Key: D		
Question No. 139		
Anodising is a process of forming a thick oxide layer of-		
A) Aluminium	B) Calcium	

C) Potassium	D) Iron
Answer Key: A	
Question	n No. 140
Which of the following acids is found in tomatoes?	
A) Malic acid	B) Tartaric acid
C) Hydrochloric acid	D) Acetic acid
Answer Key: A	
Question	n No. 141
The filament of electric bulb is made of-	
A) Tungsten	B) Nichrome
C) Stainless steel	D) Manganin
Answer Key: A	
Question	n No. 142
When two forces act on a body along the same direction, t	hen the net force is equal to-
A) A negative value	B) Zero
C) The sum of the individual forces	D) None of the options
Answer Key: C	
Question	n No. 143
The energy possessed by a body by virtue of its motion is	called-
A) Potential energy	B) Kinetic energy
C) Thermal energy	D) Heat energy
Answer Key: B	
Question No. 144	
Which rule helps to determine the direction of the magnetic	c field associated with a current-carrying conductor?
A) Ohm's law	B) Faraday's law
C) Maxwell's right-Hand Thumb Rule	D) Thermodynamics law
Answer Key: C	
Question No. 145	
How much time will be required to perform 520 J of work at the rate of 20 W?	
A) 24 seconds	B) 16 seconds
C) 20 seconds	D) 26 seconds
Answer Key: D	
Question No. 146	
The ratio of the intensity of magnetization to magnetizing fi	iold is called

C) Electro-magnetic induction	D) Reluctance	
Answer Key: B		
Question	ı No. 147	
How much work is done in moving a charge of 3 C across to	two points having a potential difference 13 V?	
A) 22 J	B) 46 J	
C) 39 J	D) 119 J	
Answer Key: C		
Question	ı No. 148	
If heating is employed for a decomposition reaction, then what type of reaction occurs?		
A) Thermal decomposition	B) Photo decomposition reaction	
C) Electrolytic decomposition reaction	D) Non-electrolytic decomposition reaction	
Answer Key: A		
Question	ı No. 149	
The second most abundant element in the earth's crust is-		
A) Calcium	B) Silicon	
C) Potassium	D) Sodium	
Answer Key: B		
Question	ı No. 150	
Which of the following elements has the lowest atomic mas	ss?	
A) Helium	B) Hydrogen	
C) Lithium	D) Nitrogen	
Answer Key: B		

B) Magnetic susceptibility

A) Reactance