उम्मीदवार इस पुस्तिका के सबसे ऊपरी सील को खोलकर पृष्ठ संख्या 2 और 3 के मध्य स्थापित OMR उत्तर शीट को निकाल लें। Candidates should open the top side of the seal of this Booklet and take out the OMR Answer Sheet placed at page no. 2 and 3.

पुरितका सं. : Test Booklet No. :

TR-01

Roll No. :

परीक्षा प्रश्न-पुरितका **EXAMINATION QUESTION BOOKLET** परीक्षा पुरितका शृंखला : Test Booklet Series :

अधिकतम अंक : 100 Maximum Marks: 100

उत्तर शीट सं.:	7	T
swer Sheet No. :		-

प्रश्नों के उत्तर देने से पहले निम्नलिखित अनुदेशों को ध्यान से पढ़ लें।/ Read the following instructions carefully before you begin to answer the questions.

उम्मीदवारों के लिए अनुदेश

Time Allowed: 120 Minutes

निर्धारित समय : 120 मिनट

- प्रश्नों के उत्तर लिखना आरंभ करने से पहले आप इस पुस्तिका की जाँच करके सुनिश्चित कर लें कि इसमें पूरे पृष्ठ (1-12) हैं तथा कोई पृष्ठ या उसका भाग कम या दुबारा तो नहीं आ गया है। उम्मीदवारों को यह भी जाँच करनी है कि उनको केवल उस पोस्ट की ही सही परीक्षा-पुस्तिका मिली है जिसके लिए उन्होंने आवेदन किया है। यदि आप इस पुरितका में कोई त्रुटि पाएं, तो तत्काल इसके बदले दूसरी पुस्तिका ले लें।
- ओएमआर उत्तर-शीट प्रश्न पुरितका में ही उपलब्ध रहेगी। कृपया सुनिश्चित करें कि ओएमआर शीट संख्या और परीक्षण पुरितका संख्या समान हैं। ओएमआर शीट पर जानकारी भरने से पहले ओएमआर शीट पर छपे निर्देशों को ध्यान से पढ़ें। आपको ओएमआर उत्तर-पत्रक पर सभी विवरणों को सही ढंग से पूरा और कोड करना होगा, ऐसा न करने पर आपकी उत्तर पुरितका का मूल्यांकन नहीं किया जा सकता है। प्रश्नों का उत्तर देना शुरू करने से पहले आपको ओएमआर उत्तर-पत्रक पर दिये गए निर्धारित स्थान पर अपने हस्ताक्षर करने होंगे। इन निर्देशों का पूर्ण रूप से पालन किया जाना चाहिए, ऐसा न करने पर आपकी ओएमआर उत्तर-पुरितका का मूल्यांकन नहीं किया जा सकता है।
- ओएमआर उत्तर-शीट तीन प्रतियों में होंगी (मुल तथा कार्बन की दो प्रतिलिपियाँ)। परीक्षा समाप्ति के बाद ओ.एम्.आर. की मूल शीट तथा एक कार्बन प्रतिलिपि निरीक्षक को सौंपने के पश्चात उम्मीदवार अपने साथ एक कार्बन प्रतिलिपि ले जा सकते/सकती हैं। यदि कोई भी उम्मीदवार ऐसा करने में असफल रहता/ रहती है तो उसकी उम्मीदवारी रद्द कर दी जायेगी। यदि कोई उम्मीदवार अपनी कार्बन प्रतिलिपि में किसी भी प्रकार का फेर-बदल कर उसका दावा करता/करती है तो इस स्थिति में भी उसका/उसकी उम्मीदवारी रद्द की जायेगी।
- इस प्रश्न-पुस्तिका में 100 बहुविकल्पीय प्रश्न हैं। प्रत्येक प्रश्न के 4 विकल्प दिए गए हैं, (A), (B), (C) और (D)। किसी भी रिथित में प्रत्येक प्रश्न का केवल एक विकल्प ही सही उत्तर है। यदि आपको एक से अधिक विकल्प सही लगें तो सबसे अधिक उचित एक विकल्प का चुनाव करें और उत्तर शीट में सम्बंधित प्रश्न के सामने वाले उपयुक्त गोले को काला करें।
- प्रत्येक सही उत्तर के लिए एक अंक दिया जाएगा और प्रत्येक गलत उत्तर के लिए 0.25 अंक काट लिए जाएंगे।
- गोले को काला करने के लिए केवल काले/नीले बॉल प्वाइंट पेन का प्रयोग करें। गोले को एक बार काला करने के बाद इसको मिटाने या बदलने की अनुमति नहीं है। यदि किसी प्रश्न के सामने एक से ज्यादा गोले काले किये गए हों तो मशीन द्वारा उसके लिए **शून्य अंक** दिया **जाए**गा।
- किसी भी स्थिति में उत्तर शीट को न मोड़ें।
- उत्तर-पुरितका पर कोई भी रफ कार्य नहीं करना है। रफ कार्य के लिए इस पुरितका में स्थान दिया गया है।
- परीक्षा हॉल/कमरों में मोबाइल फ़ोन तथा बेतार संचार साधन पूरी तरह निषिद्ध हैं। उम्मीदवारों को उनके अपने हित में सलाह दी जाती है कि मोबाइल फोन/ किसी अन्य बेतार संचार साधन को रिवच ऑफ करके भी अपने पास न रखें। इस प्रावधान का अनुपालन न करने को परीक्षा में अनुचित उपायों का प्रयोग माना जायेगा और उनके विरुद्ध कार्यवाही की जाएगी, जिसमें उनकी उम्मीदवारी रद्द करना भी शामिल है।
- 10. अभ्यर्थी अपनी उत्तर पुरितका पर्यवेशक को सौंपे बिना और अपने रोल नंबर के सामने उचित स्थान पर उपरिथति पत्रक पर हस्ताक्षर किए बिना परीक्षा हॉल/कक्ष से बाहर नहीं जा सकता। इसके अलावा अभ्यर्थी को उपरिथति पत्रक पर हस्ताक्षर करने से पहले यह भी सुनिश्चित करना चाहिए कि बुकलेट नंबर, बुकलेट सीरीज और ओएमआर उत्तर पुस्तिका संख्या सही ढंग से लिखी गई हो। ऐसा ना करने पर, ओएमआर उत्तर पुरितका को अमान्य माना जाएगा/मूल्यांकन नहीं किया जा सकता है।

Instructions to the Candidates

Ar

- Before you start to answer the questions you must check this booklet and ensure that it contains all the pages (1-12) and see that no page or portion thereof is missing or repeated. Candidates are also required to check that they have got the right question booklet strictly for the post candidate has applied for. If you find any defect in this Booklet, you must get it replaced
- OMR Answer-Sheet is within the Question Booklet. Please ensure OMR Answer-Sheet number and Test Booklet No. of Question Paper are same. Read the instructions printed on OMR Answer-Sheet carefully before filling the information on the OMR Answer-Sheet. You must complete and code all the details on the OMR answer sheet correctly failing which your answer sheet may not be evaluated. You must also put your signature on the OMR Answer-Sheet at the prescribed place before you actually start answering the questions. These instructions must be fully complied with, failing which, your OMR Answer-Sheet may not be evaluated.
- The OMR Answer-Sheet will be in triplicate (Original and two carbon copies). Candidate has to take one carbon copy (marked as 'candidate copy') with him/her after examination and handover the original OMR along with one carbon copy to invigilator. If candidate fails to handover the original OMR along with one carbon copy to invigilator, his /her candidature will be cancelled. Further, if the candidate tampers with candidate OMR carbon copy and claims for same, in that case also his/her candidature will be cancelled.
- This booklet consists of 100 Multiple Choice Questions. Each question has 4 (four) alternatives (A), (B), (C) and (D). In any case only one alternative will be the correct answer. In case if you find more than one correct answer, then choose the most appropriate single option and darken the appropriate circle in the answer sheet in front of the related question.
- For each correct answer One mark will be given and for each incorrect answer 0.25 marks will be deducted.
- Use Black/Blue ball point Pen to darken the circle. Answer once darkened is not allowed to be erased or altered. Against any question if more than one circle is darkened, machine will allot zero mark for that question.
- Do not fold answer sheet in any case.
- No rough work is to be done on the Answer-Sheet. Space for rough work has been provided in this booklet.
- Mobile phones and wireless communication devices are completely banned in the examination hall/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.
- Candidate should not leave the examination hall / room without handing over his/her Answer-Sheet to the invigilator and without signing on the attendance sheet at proper place against your roll number, further candidate should also ensure that booklet no., booklet series and OMR Answer-Sheet No. are correctly written on attendance sheet before signing on it, failing in doing so, may lead to disqualification / no evaluation of OMR Answer-Sheet.

जब तक आपसे कहा न जाए तब तक प्रश्न-पुस्तिका न खोलें / DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.

	PART - A	7.	GPS means:
1.	Which of the following operations cannot be	-	(A) Global Placing Satellites
	performed on a drilling machine?		(B) Global Positioning Satellites
	(A) tapping		(C) General Purpose System
	(B) lapping		(也) Global Positioning System
	(C) reaming		
	(D) all of them can be performed on a	8.	Work perform by gears is
	drilling machine		(A) to transmit power
	***		(B) to change the speed
2.	Unit of force is		(C) for positive drive
	(A) Joule (B) Joule-meter		(D) all the above
	(C) Newton (D) Newton-meter		
3.	Secondary coil voltage of ignition coil is of	9.	In a Drilling Machine,
0.	the order of		(A) Drill is stationary and workpiece rotates
	(A) 3-12 volts		(B) Drill and workpiece rotate in opposite
	(B) 200-250 volts		directions
	(C) 1000-2000 volts		(C) Drill rotates and workpiece is stationary
	(D) 10000-20000 volts		(D) Drill rotates and workpiece moves
_		10	Culting Quide in muting a counting of
4.	The acid used in a lead-acid battery is	10.	Cutting fluids in cutting operation are used
	(A) Nitric acid		(A) to remove heat
	(B) Sulphuric acid		(B) to increase the life of tool
	(C) Hydrochloric acid		(C) to increase the surface finish
	(D) Carbonic acid		(D) all the above
5.	In series connection of resistors, current	11.	Ammeter is connected in to
	through each resistor is		measure current.
	(A) same (B) highest in highest resistance		(A) series
	(C) lowest in highest resistance		(B) parallel
	(D) incomplete information		(C) anywhere
	(-)		(D) series and parallel
6.	Resistors are joined in series when we	12.	A wire of 40 ohm resistance is cut into 2 equal
	require:		pieces and these pieces are then joined in
	(A) higher resistance		series. What is the resistance of the new
	(B) lower resistance		setup?
	(C) higher conductance(D) none of these		(A) 5 ohm (B) 10 ohm
	(D) none of these		(C) 20 ohm (D) 40 ohm

13.	Air conditioner compressor gets power from the engine through: (A) Gear (B) Chain (C) Belt (D) Clutch	20.	External threads are also called (A) female threads (B) male threads (C) right hand thread (D) left hand thread
14.	Which among the following is the finest emery paper ?		
	(A) 100 (B) 200 (C) 1000 (D) 2000	21.	With the combination of set square, which of the following angles cannot be drawn? (A) 15° (B) 25° (C) 45° (D) 105°
15.	Ammeters have		(C) 45 (D) 105
	(A) low resistance(B) high resistance(C) high voltage(D) high capacitance	22.	Starting motor of automobiles is (A) series - parallel wound direct current electric motor (B) shunt motor (C) compound motor
16.	The most probable cause of horn sounding continuously without pressing the switch is: (A) stuck relay contacts		(D) parallel
	(B) blown fuse	23.	Which file type is used for non-metals such as wood, leather etc. ?
	(C) low battery voltage(D) low voltage at horn terminals	5)	(A) single cut (B) double cut (C) rasp cut (D) curved cut
17.	Value of (5/6) – (3/4) is : (A) 1/24 (B) 2/24 (C) 3/24 (D) 5/12	24.	Drawing instrument set usually contains all of the following, except (A) compass (B) scale
18.	Which of the following is independent	1 1 1	(C) divider (D) extra leads
	suspension system ? (A) Wishbone Arm System	25.	An undesirable property of a refrigerant is
	(B) Trailing Link System(C) Sliding Pillar System(D) All of these		(A) Non-toxic(B) Non-flammable(C) Non-explosive
19.	Summer air conditioning requires:		(D) High boiling point
	(A) cooling(B) cooling and humidification(C) cooling and dehumidification(D) increase in enthalpy	26.	Bendix drive is used in IC engine for (A) braking system (B) steering system (C) starting system (D) ignition system

27.	LCM	I of 2 or more numbers is :	32.	Uni	t of electrical ener	gy is	:
	(A)	always less than or equal to the smallest		(A)	Watt	(B)	Watt meter
		number		(e)	Watt-second	(D)	Volt second
	(B)	always less than or equal to the largest number					
	(C)	always more than or equal to the smallest number	33.	Mat (A)	erial of V block is Mild steel	s	•
,	(D)	always more than or equal to the largest number		(B)	High carbon ste	el	
				(C) ₋			
28.	Con	npression ratio of a CI engine is than SI engine.		(D)	None of these	_	
	(A)	less	34.	In se	econd cut file nui	mber	of teeth per incl
	(B)	more		is:	\sim C) `	
	(C)	equal		(A)	20	(B)	40
	(D)	depends upon the design		(C)	100 - 120	(D)	50 - 60
29.	cutt	chining process in which an abrasive ing tool is used to produce a very fine ace is	35.		^t angle projection,		
	(A)	drilling (B) honing	1		plane of projection r two ?	ı, whic	ch is between the
	(C)	cutting (D) all the above	\bigcirc	(A)	observer		
30.	In a	n electromagnet :		(B)	object		
	(A)	electric current and magnet combine to		(C) (D)/	plane of projection		e de la companione de l
	(D)	produce required force	-		different in front	and t	op views
	(B)	magnet is used to produce electric current	36.	Pig	iron is produce	d fro	m iron ore in
	S	electric current is used to produce	Carrottoens.			u 110	ii iion ole iii
	(D)	magnetic field none of these		(A)	Electric furnace		
(*)	(D)	none of these		(B)	Cupola furnace		
31.	₩/hi	ich of the following bulbs in a car has the		(C)	Both (A) and (B)		
31.		t wattage?		(D)	Blast furnace		
	(A)	Indicator light bulb					
	(B)	Brake light bulb	37.	Tacho	ometer is used to	meası	ıre
	(C)	Parking light bulb		(A)	length ((B) t	orque
	(D)	Ignition warning bulb		(C)	power \((D) r	pm
$\overline{\mathbf{B}/\mathbf{B}}$	Page 4	SPACE FOR R	OUGI	I WO	RK		TR-01

(A) observer (B) object (C) plane of projection (D) different in front and top views 39. In an air conditioning system, heat absorbed in comparison to heat rejected is: (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) Headless bolt with threads on both sides (C) solid nut (D) hollow nut (D) hollow nut (D) Work done = power x time (E) Energy = power x time (E) Work done = energy x time (D) Work and energy have same unit (D) Work and energy have same unit (E) Electromagnetic induction (D) None of these (E) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (A) Series (B) parallel (C) anywhere (D) which tool can be used to draw a 90 degree angle? (A) Which tool can be used to draw a 90 degree angle? (A) Aldydraulic (C) mini drafter (D) all of the above (A) hydraulic (B) pneumatic (C) mechanical (D) electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should not be used as a dimension line. (C) Centre line should not be used as a dimension line. (A) Aluminum (B) Iron (C) Copper (D) None of above	38.	and plane of projection, which is between the			mea	tmeter is connected in to sure voltage.
(C) plane of projection (D) different in front and top views 39. In an air conditioning system, heat absorbed in comparison to heat rejected is: (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (E) Which state in vehicles are (A) hydraulic (B) pneumatic (C) mechanical (B) pneumatic (C) mechanical (D) electromagnetic (C) mini drafter (D) all of the above 46. Parking brakes in vehicles are (A) hydraulic (B) pneumatic (C) mechanical (D) electromagnetic (C) mini drafter (D) all of the above 47. Vacuum for power brakes is produced by (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design 48. Which is the wrong statement regarding dimensions? (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line.				,	(A)	series
(C) plane of projection (D) different in front and top views 45. Which tool can be used to draw a 90 degree angle? (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (E) Hollow nut (D) hollow nut (E) Hollow nut (D) hollow nut (E) Hollow nut (E) Hollow nut (D) Work and energy time (D) Work and energy have same unit (E) Hollow nut (D) Work and energy have same unit (E) Hollow nut (D) Hollow nut (E) Series and parallel (F) Which tool can be used to draw a 90 degree angle? (A) 30/60 triangle (B) protractor (C) mini drafter (D) all of the above (A) Hydraulic (B) pneumatic (C) mechanical (D) electromagnetic (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (B) Hollow nut (C) mechanical (D) electromagnetic (E) Hollow nut (D) hollow nut (D) hollow nut (E) Hollow nut (D) Hollow nut (D) Hollow nut (E) Hollow nu					(B)	parallel
45. Which tool can be used to draw a 90 degree angle? (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high cap		(B)	object		(C)	anywhere
45. Which tool can be used to draw a 90 degree angle? (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for high capacity (D) More for high capacity and less for high capacity (D) More for high capacity and less for small capacity (C) More for high capacity and less for high capacity (D) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for high capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) More for high capacity and less for migh capacity (E) Parking brakes in vehicles are (A) hydraulic (B) preumatic (C) mechanical (D) electromagnetic (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be written to the left side of the drawing. (C) Dimensions should be used as a dimension line.		(C)	plane of projection		(D)	series and parallel
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in comparison to heat rejected is: (A) Always less (B) Always more (C) More for small capacity and less for high capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (D) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity and less for small capacity (E) More for high capacity (E) More for high capacity and less for small capacity (E) Parking brakes in vehicles are (A) hydraulic (B) pneumatic (C) mechanical (D) electromagnetic (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (A) Aluminum (B) Provide the above				45.	Whi	ch tool can be used to draw a 90 degree
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(C) mechanical (D) electromagnetic 47. Vacuum for power brakes is produced by (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (A) Work done = power × time (B) Energy = power × time (C) Work and energy have same unit (D) Work and energy have same unit (E) Electromagnetic induction (D) None of these (C) mechanical (D) electromagnetic (D) electromagnetic (E) electromagnetic (D) electromagnetic (E) electromagnetic (E) electromagnetic (F) vacuum for power brakes is produced by (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (E) Every dimension must be given, but none should be given more than once. (E) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (C) Dimensions should not be used as a dimension line. (A) Aluminum (B) Iron		(D)			(B)	pneumatic
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(B) headless bolt with threads on both sides (C) solid nut (D) hollow nut (D) hollow nut (E) Which statement is false? (A) Work done = power × time (B) Energy = power × time (B) Energy = power × time (C) Work and energy have same unit (D) Work and energy have same unit (E) Work and energy have same unit (E) Electromagnetic induction (D) None of these (E) Vacuum for power brakes is produced by (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (E) Hematite is ore of (A) Aluminum (B) Iron	ŧU.					$\mathcal{L}_{\mathcal{L}}}}}}}}}}$
(C) solid nut (D) hollow nut (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (A) Work done = power × time (B) Energy = power × time (C) Work and energy have same unit (D) Work and energy have same unit (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) None of these (B) Electromagnetic induction (D) None of these (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (A) engine (B) electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (B) Electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line.	,			47.	Vacu	ium for power brakes is produced by
(D) hollow nut (B) electric motor (C) hydraulic pump (D) depends upon design (A) Work done = power × time (B) Energy = power × time (C) Work done = energy × time (D) Work and energy have same unit (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) None of these (A) Leaf springs absorb shocks by (A) bending (B) twisting (B) electric motor (C) hydraulic pump (D) depends upon design (A) Every dimension must be given, but none should be given more than once. (B) Every dimensions should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron						<u> </u>
(b) Check the hold (c) hydraulic pump (D) depends upon design (D) work done = power × time (E) Energy = power × time (D) Work and energy have same unit (E) Hall (E)			N 1-2			9
 (A) Work done = power × time (B) Energy = power × time (C) Work done = energy × time (D) Work and energy have same unit (E) Alternator works on the principle of: (A) Ohm's law (B) Lenz's law (C) Dimensions should be given more than once. (D) Dimensions should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (E) Leaf springs absorb shocks by		(D)	hollow nut		(B)	electric motor
 (A) Work done = power × time (B) Energy = power × time (C) Work done = energy × time (D) Work and energy have same unit (E) Which is the wrong statement regarding dimensions? (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. 43. Leaf springs absorb shocks by	4.4	TA71 •	1		(C)	hydraulic pump
 (B) Energy = power × time (C) Work done = energy × time (D) Work and energy have same unit (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) None of these (D) Centre line should not be used as a dimension line. (E) Hematite is ore of	¥1.				(D)	depends upon design
Work done = energy × time (D) Work and energy have same unit (A) Every dimension must be given, but none should be given more than once. (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) None of these (A) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (A) Hematite is ore of (A) Aluminum (B) Iron						
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none should be given more than once. (A) Ohm's law (B) Lenz's law (C) Electromagnetic induction (D) None of these (A) Dending (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron				21		
 (A) Ohm's law (B) Lenz's law (C) Electromagnetic induction (D) None of these (A) bending (B) Every dimension should be written to the left side of the drawing. (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron 		(D)	Work and energy have same unit		(A)	
the left side of the drawing. (A) Ohm's law (B) Lenz's law (C) Electromagnetic induction (D) None of these (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (B) Lenz's law (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. (B) Leaf springs absorb shocks by (A) bending (B) Tron	4.6	4.14			(B)	
(A) Onm's law (B) Lenz's law (C) Electromagnetic induction (D) None of these (C) Dimensions should be placed outside the views. (D) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron	12.				(-)	
the views. (D) None of these the views. (D) Centre line should not be used as a dimension line. 43. Leaf springs absorb shocks by (A) bending (B) twisting the views. (D) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron			250,053740349301401 254074, 10		(C)	
(D) None of these (D) Centre line should not be used as a dimension line. 43. Leaf springs absorb shocks by (A) bending (B) Centre line should not be used as a dimension line. 49. Hematite is ore of (A) Aluminum (B) Iron		' /				
43. Leaf springs absorb shocks by (A) bending (B) twisting (A) Aluminum (B) Iron					(D)	
(A) bending (B) twisting (A) Aluminum (B) Iron		(D)	None of these			dimension line.
(A) bending (B) twisting (A) Aluminum (B) Iron	4.2	I ook	enrings absorb shocks by	49	Hom	atito in a second
	ŧ٥.			4 7.		
(C) compression (D) None of above						
		(C) ———	compression (D) tension		(-)	(D) None of above

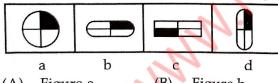
50.	Whic other	h type of line types of lines	e has pred	cedence over all	56.	56. In an air conditioner compressor, diameter of suction pipe is than discharge			
	(A)	hidden line				pipe.			
	(B)	center line				(A)	equal		
1	(C)	visible line		, , , , , , , , , , , , , , , , , , ,		(B)	more		
	(D)	none of the a	above			(C)	less		
						(D)	depends upon design		
51.	The calle	operation of 1	making in 	iternal threads is	57.	Artif	icial abrasive is		
	(A)	drilling	(B)	lapping		(A)	silicon carbide		
	(C)	reaming	(D)	tapping		(B)	aluminum carbide		
				1	l p	(C)	both (A) and (B)		
52.	Leas	t count of mi	crometer	is		(D)	none of above		
	(A)	1 mm	√(B)	0.1 mm	10.7		4.		
	(C)	0.01 mm	(D)	0.01 cm	58.	HCF	of 2 or more numbers is:		
53.	Stee	ring ratio of	a vehicl	e is the ratio of		(A)	always less than or equal to the smallest number		
•		·			. ((B)	always less than or equal to the largest		
	(A)	power app delivered at		driver to power			number		
	(B)			wheels to power		(C)	always more than or equal to the smallest number		
	(D)	applied by		wheels to power	7	(D)	always more than or equal to the largest		
	(C)	angle turned turned by r		ing wheel to angle ls		()	number		
	(D)	angle turne turned by s	ed by road teering w	d wheels to angle heel	59.	CI e syst	engines use type of ignition em.		
				3		(A)	battery		
54.	Wh	ich of the foll		"A3" size ?		(B)	magneto		
	(A)					(C)	electromagnetic coil		
	(B)	594 mm×8				(D)	none of these		
	(C)								
	(D)	210 mm×2	297 mm		60.	A b	olt having size 13 means :		
	D	المحدد عام المحدد	rith c			(A)	bolt length is 13 mm		
55		nch is used w		file.		(B)	bolt shank diameter is 13 mm		
) saw) hammer	(B)			(C)	bolt requires a torque of 13 N-m		
-	(C)) Hammer	(D)	any of these		(D)	bolt head is 13 mm across		

	SPACE FOR R	OLIC	HWO	RK TR-01
(C)	14 psi (D) 16 psi		V(D)	all of the above
(A)	10 psi (B) 12 psi		(C)	construction lines
Pres	ssure of 1 kg per square cm is coximately equal to		(A) (B)	visible lines center lines
(D)	IOM Antrage of Hottl returning	70.	Whic	h line type is thick and dark?
(C)	low battery voltage low voltage at horn terminals			
(B)	blown fuse		(C)	taper gauge (D) radius gauge
(A)	stuck relay contacts		(A)	ring gauge (B) filler gauge
prod	most probable cause of horn not lucing any sound is	69.		neasure the clearance between two parts are used.
(D)	X and Y axes are true lengths and Z axis is inclined at 45 degrees.	Y	(D)	BHP=IHP-FHP
(C)	X and Y axes are true lengths and Z axis is inclined at 30 degrees.		(C)	BHP=IHP+FHP
(C)	each other.		(B)	BHP=IHP×FHP
(B)	the three axes are equally inclined to		(A)	BHP=IHP/FHP
(A)	the three axes are mutually perpendicular.	68.	Whic	ch statement is correct?
In is	ometric projection:		(D)	cylindrical
	(<i>D</i>) Spinic		(C)	conical
(C)	rivet (B) nail		(B)	hexagonal prism
(A)			(A)	hexagonal pyramid
Whic	ch among the following is a temporary ner?	07.		nmonly used shape of bolt head is
(D)	for general purpose fastening	67.	Com	amonly used share of 1.1, 1.
	high axial thrust or power transmission in one direction		, (D)	all of the above
(C)	for fine work such as micrometers		(C)	construction lines
(B)	disengagement are required		1 (B)	hidden lines
(21)	where frequent engagement and		(A)	visible lines
(A)			(1)	- ' - '1 1 - 1'

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	а			_	- 13

	PART - B	76.	The sm	nallest number which is 16 leaves remainder 6 :	divided by 438 in each case is
71.	Re-write the sentence in indirect speech: "I will win the competition," she confidently exclaimed, "and prove my capabilities". (A) She confidently stated that she will win		()	4242	4248
	the competition and prove her capabilities. (B) She confidently exclaimed that she would win the competition and prove her capabilities.	.77.	and bl	state is known as 'Lai ue hills' ? Karnataka	nd of red river
	(C) She confidently exclaimed that she would win the competition and prove her capability.(D) She confidently expressed that she would win the competition and be able		(C) I	Andhra Pradesh Punjab Assam	
	to prove her capabilities.	78.	Identi idiom	fy the meaning of th	ne underlined
72.	You will see three words and a blank; fill the blank from the four answer choices. Choose the answer that best completes the analogy posed by the three words. hangar: airplane: garage:	. (Additi	onal initiatives aimed a erly population in the na	
	(A) steak (B) runway (C) oil (D) automobile			Being contemplated Under scrutiny	y
73.	Arjit is 10% less efficient than Aadyaa. If Arjit can finish the work in 22 days then Aadyaa can finish it in			With the officials Likely to happen soon	
	(A) 10 days (B) 20 days (C) 15 days (D) None of these	79.	Which the Tr	a battle saw the defeat of avancore King in the ye	of the Dutch by ear 1741 ?
74.	The term "Tee" is used commonly in which among the following sports? (A) Tennis (B) Polo		(A) (B)	The Battle of Porto Nov The Battle of Pollilore	О
	(C) Swimming (D) Golf			The Battle of Changana The Battle of Colachel	ssery
75.	2498 so that sum is exactly divisible by 5, 6, 4 and 3 is	80.	What	is the capital city of Hu	ingary ?
	(A) 24 (B) 23 (C) 22 (D) None of these	,		Tolaro	akarta Vairobi
B/	Page 8 SPACE FOR	ROUG	H WOI		TR-01

- 81. Given below are six sentences, out of which sentences I and VI are in the correct position. Sentences II, III, IV and V are in a jumbled order. Select the option that gives the correct order.
 - I. The hiking trail led us through a dense forest, providing breathtaking views.
 - II. As we reached the summit, the sun was beginning to set, casting a warm, golden glow over the landscape.
 - III. Along the way, we encountered a variety of wildlife, including deer and songbirds.
 - IV. The crisp mountain air invigorated us as we made our way up.
 - V. Our journey was filled with moments of awe and serenity.
 - After a long day of hiking, we set up VI. our campsite and enjoyed a welldeserved meal.
 - (A) I, IV, III, V, II, VI
 - I, IV, V, II, III, VI
 - (C) I, IV, V, III, II, VI
 - (D) I, V, III, IV, II, VI
 - In this problem, out of the four figures marked a, b, c and d, three are similar in a certain manner. However, one figure is not like the others. Choose the figure which is different from the rest.



- (A) Figure a
- (B) Figure b
- (C) Figure c
- Figure d (D)
- 83. Choose the correct spelling:
 - (A) sacrilegious
- sacreligeous (B)
- sacriligeous
- (D) sacreligous
- 84. On selling of a headphone on Rs. 1140 a shopkeeper loses 5%. What percent shall he gain by selling it for Rs. 1260?
 - (A) 4%
- (B) 6%
- °5%
- (D) None of these

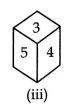
- Which is the official currency of Malaysia? 85.
 - (A) Rial
- Shekel
- Tenge
- (D) Ringgit
- 86. The compound interest on some principal amount at 10% per annum for 24 months is Rs. 1260. The principal amount is
 - (A) Rs. 5000
- Rs. 6000
- Rs. 4000 (C)
- None of these
- Pointing to a woman in the Photograph, Arun 87. said "She is the wife of the only child of my father". How is the woman in the Photograph related to Arun?
 - Wife (A)
- (B) Mother
- (C) Niece
- Daughter
- 88. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

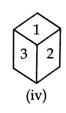
FAK, IEM, LIO, ____?

- (A) MNO
- **NOP** (B)
- (C) OPO
- AD) OMQ
- 89. A dice is thrown four times and its four different positions are shown below. Find the number on the face opposite the face showing 2.









- (D)
- 90. a% of b is b% of:
 - (A) b^2/a
- b/a^2 (B)
- a
- None of these (D)

91. Choose the correct **antonym** for the underlined word in the given sentence :

His <u>indefatigable</u> pursuit of esoteric knowledge often left others bemused, yet he remained resolute in his intellectual endeavors.

- (A) Stability
- (B) Inscrutable
- (C) Lethargic
- (D) Enervated
- **92.** What is the capital city of New Zealand?
 - (A) Auckland
- (B) Queenstown
- (C) Wellington
- (D) Napier
- 93. The 86th Amendment Act of the Indian Constitution, which paved the way for the Right to Education (RTE) Act, was enacted in:
 - (A) 2005
- (B) 2008
- (C) 2002
- (D) 2010
- **94.** Re-write the sentence in passive voice: After decades of scholarly inquiry, linguists acknowledge that deciphering the ancient script remains an enigmatic challenge.
 - (A) It is acknowledged by linguists, after decades of scholarly inquiry, that the ancient script remains an enigmatic challenge to decipher.
 - (B) Acknowledging the ancient script as an enigmatic challenge, linguists have engaged in decades of scholarly inquiry.
 - (C) In spite of decades of scholarly inquiry, linguists acknowledge that deciphering the ancient script remains an enigmatic challenge.
 - (D) After decades of scholarly inquiry, it is acknowledged by linguists that the deciphering of the ancient script remains an enigmatic challenge.
- 95. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. 1001, 1004, 1012, 1027, ___?
 - (A) 1036
- (B) 1050
- (C) 1051
- (D) 1048

96. Choose the correct **synonym** for the underlined word in the given sentence :

The professor was incredibly <u>loquacious</u> during the lecture, elaborating on every intricate detail of the subject matter.

- (A) Taciturn
- (B) Garrulous
- (C) Reticent
- (D) Laconic
- **97.** Find the odd number from the given alternatives :
 - (A) 67626
- (B) 84129
- (C) 32418
- (D) 47632
- 98. Where is Satish Dhawan Space Centre (SDSC-SHAR) located?
 - (A) Bengaluru, Karnataka
 - (B) New Delhi
 - (C) Sriharikota, Andhra Pradesh
 - (D) Chandigarh, Haryana
- 99. The cost of painting the four walls of a room at Rs. 4 per square meter is Rs. 252. The height of the room is 4.5 m. Find the length and breadth of the room if they are in the ratio 4:3.
 - (A) Length = 8 m, Breadth = 6 m
 - (B) Length = 4 m, Breadth = 3 m
 - (C) Length = 12 m, Breadth = 9 m
 - (D) Length = 2 m, Breadth = 1.52 m
- 100. The greatest four digit number which is exactly divisible by 18, 24 and 36 is
 - (A) 9916
- (B) 9936
- (C) 9956
- (D) 9938