Subject Code : $108 \sim$

| Subject Code | Exam Date | $\begin{aligned} & \mathbf{Q} \\ & \text { Id } \end{aligned}$ | Questions | Answer Key |
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| 108 | 30-03-2021 | 631 | The Battle of Belonging is the book authored by <br> (A) Shashi Tharoor <br> (B) Nawab Pataudi <br> (C) M. Venkaiah Naidu <br> (D) Prakash Javadekar | (A) |
| 108 | 30-03-2021 | 632 | Where is the headquarter of National Bank for Agriculture and Rural Development(NABARD)? <br> (A) Kolkata <br> (B) Chennai <br> (C) New Delhi <br> (D) Mumbai | (D) |
| 108 | 30-03-2021 | 633 | Who among the following was conferred with Eminent Engineer Award for the Year 2020 by Institution of Engineering and Technology? <br> (A) Dr. G. Satheesh Reddy <br> (B) V K Yadav <br> (C) Piyush Goyal <br> (D) Harish Salve | (B) |
| 108 | 30-03-2021 | 634 | The Indian government signed a memorandum of understanding ( MoU ) with $\qquad$ in 2019 to boost sales of products made by women self-help groups, formed under the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission | (A) |


|  |  |  | (DAY-NULM). <br> (A) Flipkart <br> (B) Amazon <br> (C) Facebook <br> (D) Google |  |
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| 108 | 30-03-2021 | 635 | India has been placed at 139th position out of 149 countries in the UN World Happiness Report 2021 released. The 2021 report is the ninth World Happiness Report and focuses on the effects of COVID-19 and how people all over the world have fared. The World Happiness Report 2021 has been topped by $\qquad$ for the fourth consecutive year. <br> (A) New Zealand <br> (B) Finland <br> (C) Norway <br> (D) Netherlands | (B) |
| 108 | 30-03-2021 | 636 | In question below, the passage consists of six sentences. The first and sixth sentences are given in the begining. The middle sentences in each have been removed and jumbled up. These are labelled as P, Q, R and S. Find out the proper order for the four sentences. <br> S1: Throughout history man has used energy from the sun. <br> P : Today, when we burn wood or use electric current we are drawing an energy. <br> $Q$ : However we now have a new supply of energy. <br> R : All our ordinary life depends on sun. <br> S : This has come from the sun. <br> S6: This energy comes from inside atoms. <br> (A) PSRQ <br> (B) RSPQ <br> (C) RPQS | (A) |


|  |  |  | (D) RQPS |  |
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| 108 | 30-03-2021 | 637 | In question given below, a part of the sentence is italicised and underlined. Below are given alternatives to the underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is needed, option ' No improvement' may be chosen as the answer. <br> He sent a word to me that he would be coming late. <br> (A) No improvement <br> (B) sent word <br> (C) had sent a word <br> (D) sent words | (B) |
| 108 | 30-03-2021 | 638 | Replace the underlined part of sentence with the most appropriate meaning. <br> The cricket match proved to be abig draw. <br> (A) a keen contest <br> (B) a game without any result <br> (C) a lovely spectacle <br> (D) a huge attraction | (D) |
| 108 | 30-03-2021 | 639 | Give synonym for the word 'bane' <br> (A) ruin <br> (B) boon <br> (C) bonus <br> (D) blessing | (A) |
| 108 | 30-03-2021 | 640 | Fill up with most appropriate option: | (B) |


|  |  |  | Tourists always enjoyed $\qquad$ the setting Sun in the sea. <br> (A) to watch <br> (B) watching <br> (C) to seeing <br> (D) in seeing |  |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 641 | Look at this series: $2,7,10,22,18,37,26, \ldots . .$ <br> What number should fill the blank? <br> (A) 52 <br> (B) 42 <br> (C) 62 <br> (D) 46 | (A) |
| 108 | 30-03-2021 | 642 | In the following question, a word is followed by four choices. Choose the word which is the most essential part of the given word. <br> Knowledge <br> (A) Wisdom <br> (B) Learning <br> (C) Power <br> (D) Teacher | (B) |
| 108 | 30-03-2021 | 643 | A woman walking with a boy meets another woman and on being asked about her relationship with the boy, she says, "My maternal uncle and his maternal uncle's maternal uncle are brothers. " How is the boy related to the woman? <br> (A) Nephew. <br> (B) Grandson. | (D) |


|  |  |  | (C) Brother-in-law. <br> (D) Son. |  |
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| 108 | 30-03-2021 | 644 | In a certain code, COMPUTER is written as RFUVQNPC. How is MEDICINE written in the same code? <br> (A) EOJDJEFM <br> (B) EOJDEJFM <br> (C) MFEJDJOE <br> (D) MFEDJJOE | (A) |
| 108 | 30-03-2021 | 645 | $\mathrm{J}, \mathrm{K}, \mathrm{H}, \mathrm{R}, \mathrm{F}, \mathrm{N} \& \mathrm{Q}$ are sitting around a circular table facing the center. H is third to the left of $L$, who is at the immediate right of K. R is third to the left of N , but not the neighbour of H or L . J is second to the right of Q. As per the sitting arrangement, four of the following five are alike in a certain way \& so, they form their group. Which one is not included in this group? <br> (A) LK <br> (B) RQ <br> (C) FQ <br> (D) JR | (C) |
| 108 | 30-03-2021 | 646 | The difference between a two-digit number and the number obtained by interchanging the positions of its digits is 36 . What is the difference between the two digits of that number? <br> (A) 3 <br> (B) 4 <br> (C) 6 <br> (D) 9 | (B) |


| 108 | 30-03-2021 | 647 | If the diameters of a circle is increased by $100 \%$, its area is increased by? <br> (A) $100 \%$ <br> (B) $200 \%$ <br> (C) $300 \%$ <br> (D) $400 \%$ | (C) |
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| 108 | 30-03-2021 | 648 | A and B take the responsibility of doing a work for Rs 250 . A can do that work alone in 5 days and B alone in 15 days. They complete the work in 3 days with the help of C. If everyone gets paid in proportion to the work, then how much amount will C get? <br> (A) Rs. 50 <br> (B) Rs. 100 <br> (C) Rs. 150 <br> (D) Rs. 200 | (A) |
| 108 | 30-03-2021 | 649 | One year ago, ratio of Harry's age and Peter's age was $5: 6$ respectively. After 4 years, this ratio becomes $6: 7$. How old is Peter? <br> (A) 25 years <br> (B) 26 years <br> (C) 31 years <br> (D) 35 years | (C) |
| 108 | 30-03-2021 | 650 | Two buses start at the same time, one from P to Q and the other from Q to P . If both buses reach after 4 hours and 16 hours at Q and P respectively after they cross each other, what would be the ratio of speeds of the bus starting from P and that of the one starting from point Q? | (A) |


|  |  |  | (A) $2: 1$ <br> (B) $3: 1$ <br> (C) $2: 2$ <br> (D) $1: 4$ |  |
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| 108 | 30-03-2021 | 651 | The air-fuel ratio of the petrol engine is controlled by <br> (A) carburettor <br> (B) injector <br> (C) governor <br> (D) None of the options | (A) |
| 108 | 30-03-2021 | 652 | Francis turbine is <br> (A) an impulse turbine <br> (B) a friction turbine <br> (C) a reaction turbine <br> (D) both a friction and impulse turbine | (C) |
| 108 | 30-03-2021 | 653 | In a shell and tube surface condenser <br> (A) steam passes through the tubes and cooling water surrounds them <br> (B) cooling water passes through the tubes and steam surrounds them <br> (C) steam and water mix to give condensate <br> (D) None of the options | (B) |
| 108 | 30-03-2021 | 654 | A point ' P ' is above Horizontal Plane (HP) and in front of Vertical Plane (VP). The point is in <br> (A) First quadrant | (A) |


|  |  |  | (B) Second quadrant <br> (C) Third quadrant <br> (D) Fourth quadrant |  |
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| 108 | 30-03-2021 | 655 | The development of cylinder is a <br> (A) Ellipse <br> (B) Circle <br> (C) Triangle <br> (D) Rectangle | (D) |
| 108 | 30-03-2021 | 656 | The property which enables metals to be drawn into wire is known as <br> (A) Malleability <br> (B) Ductility <br> (C) Straining <br> (D) Plastic deformation | (B) |
| 108 | 30-03-2021 | 657 | The refrigerant widely used in domestic refrigerators is <br> (A) Ammonia <br> (B) Carbon dioxide <br> (C) Sulphur dioxide <br> (D) R-12 | (D) |
| 108 | 30-03-2021 | 658 | In a carnot cycle, what is the working fluid? <br> (A) a real gas <br> (B) an ideal gas <br> (C) a natural gas <br> (D) None of the options | (B) |


| 108 | 30-03-2021 | 659 | If the spring is compressed completely and the adjacent coils touch each other,then the length of spring is called as? <br> (A) Compressed length <br> (B) Solid length <br> (C) Free length <br> (D) None of the options | (B) |
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| 108 | 30-03-2021 | 660 | The fluid coming into the centrifugal pump is accelerated by $\qquad$ <br> (A) Impeller <br> (B) Throttle <br> (C) Nozzle <br> (D) Governor | (A) |
| 108 | 30-03-2021 | 661 | Darcy- Weisbach equation gives relation between $\qquad$ <br> (A) Pressure and temperature <br> (B) Mass, volume and pressure <br> (C) Head loss and pressure loss <br> (D) Pressure loss and mass | (C) |
| 108 | 30-03-2021 | 662 | According to the system international, unit of torque is $\qquad$ <br> (A) newton meter <br> (B) newton per meter <br> (C) newton per meter square <br> (D) per newton meter | (A) |
| 108 | 30-03-2021 | 663 | What is the bending moment at end supports of a simply supported beam? | (C) |


|  |  |  | (A) Maximum <br> (B) Minimum <br> (C) Zero <br> (D) Uniform |  |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 664 | What is the full form of NPSH in a pump <br> (A) Net pressure suction head <br> (B) Net positive suction head <br> (C) Net pressure super head <br> (D) Non-pressure suction head | (B) |
| 108 | 30-03-2021 | 665 | Which of the following instruments is used to measure flow on the application of Bernoulli's equation? <br> (A) venturi meter <br> (B) orifice plate <br> (C) pitot tube <br> (D) all of the options | (D) |
| 108 | 30-03-2021 | 666 | Mixture formation in a carburettor is based on <br> (A) Buoyancy Principle <br> (B) Venturi Principle <br> (C) Pascal's Law <br> (D) Capillary action | (B) |
| 108 | 30-03-2021 | 667 | Theoretically correct air-petrol ratio is <br> (A) $1: 15$ <br> (B) $8: 1$ <br> (C) $15: 1$ | (C) |

(D) $1: 8$

| 108 | 30-03-2021 | 668 | Which element of hydroelectric power plant prevents the penstock from water hammer phenomenon? <br> (A) Valves and Gates <br> (B) Spillway <br> (C) Draft tubes <br> (D) Surge Tank | (D) |
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| 108 | 30-03-2021 | 669 | The side view of an object is drawn in <br> (A) Vertical plane <br> (B) Horizontal plane <br> (C) Profile plane <br> (D) Any of the options | (C) |


| 108 | 30-03-2021 | 670 | Projection of an object shown by three views is known as <br> (A) Perspective <br> (B) Oblique <br> (C) Orthographic <br> (D) Isometric | (C) |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 671 | The true length of edge of cube is 15 cm . what will be the isometric length? <br> (A) 17.78 cm <br> (B) 14.48 cm <br> (C) 12.99 cm <br> (D) 12.22 cm | (D) |


| 108 | 30-03-2021 | 672 | The temperature at which the new grains are formed in the metal is called <br> (A) Lower critical temperature <br> (B) Upper critical temperature <br> (C) Eutectic temperature <br> (D) Recrystallisation temperature | (D) |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 673 | A3 paper size dimension in mm <br> (A) $297 \times 420$ <br> (B) $297 \times 210$ <br> (C) $594 \times 420$ <br> (D) $594 \times 841$ | (A) |
| 108 | 30-03-2021 | 674 | What is the advantage of mechanical comparator over others? <br> (A) Less moving parts <br> (B) No need of external supply <br> (C) Better range and accuracy <br> (D) No error due to parallax | (B) |
| 108 | 30-03-2021 | 675 | In clearance fit <br> (A) Tolerance zones of hole and shaft overlap <br> (B) Tolerance zone of hole is completely below that of shaft <br> (C) Tolerance zone of hole is entirely above that of shaft <br> (D) None of the options | (C) |
| 108 | 30-03-2021 | 676 | Discharge of a centrifugal pump is proportional to $\ldots$. where D is the Impeller diameter. | (B) |


|  |  |  | (A) D <br> (B) $D^{2}$ <br> (C) $D^{3}$ <br> (D) $1 / D^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 677 | A nominal metric pipe size of DN50 means <br> (A) Outer diameter 50 mm <br> (B) Outer diameter 48.7 mm <br> (C) Outer diameter 60.3 mm <br> (D) Inner diameter 50 mm | (C) |
| 108 | 30-03-2021 | 678 | The modulus of rigidity and Poisson's ratio of the wire are $2.87 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$ and 0.379 respectively. What is the value of young's modulus of the material of the wire. <br> (A) $1.08773 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$ <br> (B) $7.915 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$ <br> (C) $7.5725 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$ <br> (D) $0.1403 \times 10^{10} \mathrm{~N} / \mathrm{m}^{2}$ | (B) |
| 108 | 30-03-2021 | 679 | If diameter of a shaft is doubled the power transmitted capacity will be <br> (A) Either twice or half <br> (B) Four times <br> (C) Eight times <br> (D) Same | (C) |
| 108 | 30-03-2021 | 680 | A stone weighs 650 N in air and 275 N in water. What is its specific gravity? | (A) |

\(\left.$$
\begin{array}{|l||l|l|l|l|} & & \begin{array}{l}\text { (A) } 1.73 \\
\text { (B) } 2.45\end{array}
$$ \\
(C) 3.46 \\

(D) 0.865\end{array}\right]\)| In Autocad, how many grip points does a |
| :--- |
| circle have? |$\quad$| (A) 4 |
| :--- |


|  |  |  | loads <br> (B) Supplying the intake of an engine with air at a density greater than the density of the surrounding atmosphere <br> (C) Supplying compressed air to remove combustion products fully <br> (D) Providing forced cooling air |  |
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| 108 | 30-03-2021 | 685 | The overall efficiency of thermal power plant is equal to <br> (A) Regenerative cycle efficiency <br> (B) Rankine cycle efficiency <br> (C) Helical efficiency <br> (D) Carnot cycle efficiency | (A) |
| 108 | 30-03-2021 | 686 | Economiser is used to heat <br> (A) Flue gases <br> (B) Air <br> (C) All of the options <br> (D) Feed water | (D) |
| 108 | 30-03-2021 | 687 | The command used in Auto CAD to equally arrange objects in a outer periphery of a circle is <br> (A) Mirror <br> (B) Move <br> (C) Copy <br> (D) Array | (D) |
| 108 | 30-03-2021 | 688 | Dimensioning doesn't represent <br> (A) Depth | (C) |


|  |  |  | (B) Length <br> (C) Material <br> (D) Height |  |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 689 | In first angle projection method, object is assumed to be placed in <br> (A) Third Quadrant <br> (B) First quadrant <br> (C) Fourth quadrant <br> (D) Second quadrant | (B) |
| 108 | 30-03-2021 | 690 | The dotted lines represents <br> (A) Centre line <br> (B) Hidden edges <br> (C) Hatching line <br> (D) Projection line | (B) |
| 108 | 30-03-2021 | 691 | Using XLINE command the line to be drawn is called $\qquad$ <br> (A) Vertical line <br> (B) Construction line <br> (C) Horizontal line <br> (D) Inclined line | (B) |
| 108 | 30-03-2021 | 692 | Production drawing is also called as <br> (A) Isometric Drawing <br> (B) Machine Drawing <br> (C) None of the options <br> (D) Working Drawing | (D) |


| 108 | 30-03-2021 | 693 | Exploded assembly drawing represents <br> (A) Orthographic drawing <br> (B) Position of parts in the sequence of assembly <br> (C) None of the options <br> (D) Assembly drawing | (B) |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 694 | Which of the following is not included in forming and shaping process? <br> (A) Sheet forming <br> (B) Rolling <br> (C) Broaching <br> (D) Forging | (C) |
| 108 | 30-03-2021 | 695 | Which of the following is included in machining process? <br> (A) Drilling <br> (B) Extrusion <br> (C) Coating <br> (D) Soldering | (A) |
| 108 | 30-03-2021 | 696 | Drawing showing the position of each part with respect to each other is called $\qquad$ <br> (A) Machine drawing <br> (B) Assembly drawing <br> (C) Installation drawing <br> (D) Part drawing | (B) |
| 108 | 30-03-2021 | 697 | Yield stress of Grade A steel <br> (A) 365 MPa | (D) |


|  |  |  | (B) 315 MPa <br> (C) 490 MPa <br> (D) 235 MPa |  |
| :---: | :---: | :---: | :---: | :---: |
| 108 | 30-03-2021 | 698 | During the opening of a valve in a pipe line, the flow is <br> (A) Uniform <br> (B) Steady <br> (C) Laminar <br> (D) Unsteady | (D) |
| 108 | 30-03-2021 | 699 | A manometer is used to measure <br> (A) Pressure in Venturimeter <br> (B) Atmospheric pressure <br> (C) Difference of pressures between two points in a pipe <br> (D) Pressure in pipes and channels | Question Withdrawn |
| 108 | 30-03-2021 | 700 | Property of a fluid by which molecules of different kinds of fluids are attracted to each other is called <br> (A) Viscosity <br> (B) Adhesion <br> (C) Compressibility <br> (D) Cohesion | (B) |

