Subject Code : $104 \vee$

| Subject Code | Exam Date | $\begin{aligned} & \mathbf{Q} \\ & \text { Id } \end{aligned}$ | Questions | Answer Key |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 201 | Who among following players has won highest number of titles at one particular Grand Slam singles event? <br> (A) Rafael Nadal <br> (B) Pete Sampras <br> (C) Roger Federer <br> (D) Novak Djokovic | (A) |
| 104 | 03-12-2020 | 202 | Which of the following Indian actor was conferred with UNDP's SDG Special Humanitarian Action Award? <br> (A) Amitabh Bachchan <br> (B) Deepika Padukone <br> (C) Shah Rukh Khan <br> (D) Sonu Sood | (D) |
| 104 | 03-12-2020 | 203 | PRAGATI scheme launched by GoI in 2015 is a multi-modal and multi-purpose platform that aims to address the grievances of a common man. Full form of PRAGATI is <br> (A) Pro-Active Governance and Timely Implementation <br> (B) Pro-Active Grievance and Timely Implementation <br> (C) Pro-Active Governance and Timely Action <br> (D) Pro-Active Governance and Truthful Action | (A) |
| 104 | 03-12-2020 | 204 | Which of the following books is written by Rabindranath Tagore? <br> (A) RaktaKarabi | (A) |


|  |  |  | (B) Chidambara <br> (C) Anand Math <br> (D) Durgesh Nandini |  |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 205 | The call sign of the aircraft with the President, Vice President or Prime Minister of India on board. <br> (A) Presidential aircraft <br> (B) Air India One <br> (C) Air India <br> (D) Air Force One | (B) |
| 104 | 03-12-2020 | 206 | Replace the following with a suitable single word. <br> To cause troops, etc. to spread out in readiness for battle <br> (A) Disperse <br> (B) Deploy <br> (C) Collocate <br> (D) Align | (B) |
| 104 | 03-12-2020 | 207 | In question below, the passage consists of six sentences. The first and sixth sentences are given in the beginning. 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: A noise started above their heads. <br> P : But people did not take it seriously. <br> Q: That was to show everyone that there was something wrong. <br> R : It was a dangerous thing to do. <br> S : For, within minutes the ship began to sink. <br> S6: Nearly 200 lives were lost on the fateful day. <br> (A) QPRS <br> (B) PQSR | (A) |

(C) PRQS
(D) QPSR

Give synonym for the word
‘ industrious'
(A) indolent
(D)
(B) prompt
(C) loafing
(D) diligent

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.

I took the cycle which he bought yesterday.
(A) No improvement
(B) that he bought yesterday
(C) that which he had bought yesterday
(D) that he had bought yesterday

Candid is to indirect as honest is to
(A) frank
(B) wicked
(C) untruthful
(D) truthful
(C)
(D)
(A) tongue
(B) slang
(C) writing
(D) words

Read the definition and all four choices carefully, and find the answer that provides the best example of the given definition.

Violating an Apartment Lease occurs when a tenant does something prohibited by the legally binding document that he or she has signed with a landlord. Which situation below is the best example of Violating an Apartment Lease?
(A) Tom has decided to move to another city, so he calls his landlord to tell him that he is not interested in renewing his lease when it expires next month.
(B) Mary recently lost her job and, for the last three months, has neglected to pay her landlord the monthly rent they agreed upon in writing when she moved into her apartment eight months ago.
(C) Mark writes a letter to his landlord that lists numerous complaints about the apartment he has agreed to rent for two years.
(D) Leslie thinks that her landlord is neglecting the building in which she rents an apartment. She calls her attorney to ask for advice.

Look at this series:
V, VIII, XI, XIV, _, XX
What number should fill the blank?
(A) IX
(B) XXIII
(C) XV
(D) XVII

| 104 | 03-12-2020 | 214 | 8 persons E, F, G, H, I, J, K and L are seated around a square table - two on each side. There are 3 ladies who are not seated next to each other. $J$ is between $L$ and $F$. G is between $I$ and F. H, a lady member is second to the left of J. F, a male member is seated opposite to E , a lady member. There is a lady member between F and I. What is true about J and K ? <br> (A) J is male, K is female <br> (B) Both are male <br> (C) J is female, K is male <br> (D) Both are female | (B) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 215 | If $\mathrm{M} \times \mathrm{N}$ means M is the daughter of N ; $\mathrm{M}+\mathrm{N}$ means M is the father of N ; $\mathrm{M} \% \mathrm{~N}$ means M is the mother of N and $\mathrm{M}-\mathrm{N}$ means M is the brother of N then $\mathrm{P} \% \mathrm{Q}+\mathrm{R}-\mathrm{T} \times \mathrm{K}$ indicates which relation of P to K ? <br> (A) Daughter-in-law <br> (B) Mother-in-law <br> (C) Sister-in-law <br> (D) Aunt | (B) |


| 104 | 03-12-2020 | 216 | A sum of money is to be distributed among A, B, C , D in the proportion of $5: 2: 4: 3$. If C gets Rs. 1000 more than D , what is B 's share? <br> (A) Rs. 500 <br> (B) Rs. 1500 <br> (C) Rs. 2000 <br> (D) Rs. 2500 | (C) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 217 | Ayesha's father was 38 years of age when she was born while her mother was 36 years old when her brother four years younger to her was born. What is the difference between the ages of her parents? <br> (A) 6 years <br> (B) 4 years | (A) |

(C) 2 years
(D) 8 years

A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is
(A) 250
(B) 276
(C) 280
(D) 285
(D)
D)

\author{

}
(

> 10 (D)

The price of 2 sarees and 4 shirts is Rs. 1600. With the same money one can buy 1 saree and 6 shirts. If one wants to buy 12 shirts, how much shall he have to pay?
(A) Rs. 4800
(B)
(B) Rs. 2400
(C) Rs. 1200
(D) Rs. 2800

A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?
(A) 2.91 m
(B) 5.82 m
(C) 3 m
(D) 6 m

221 An ideal flow of any fluid must fulfill the following
(A) Newton's law of motion
(B) Newton's law of viscosity
(C) Pascal's law
(D) Continuity equation

According to the principle of buoyancy a body totally or partially immersed in a fluid will be lifted up by a force equal to
(A) The weight of the body
(B) More than the weight of the body
(C) Weight of the fluid displaced by the body
(D) Less than the weight of the body

Poise is the unit of
(A) surface tension
(B) viscosity
(B)
(C) capillarity
(D) buoyancy

The working cycle in case of four stroke engine is completed in following number of revolutions of crankshaft
(A) $1 / 2$
(B) 1
(C) 2
(D) 4

The maximum temperature in the I.C. engine cylinder is of the order of
(A) $2000-2500^{\circ} \mathrm{C}$
(B) $1000-1500^{\circ} \mathrm{C}$
(C) $1500-2000^{\circ} \mathrm{C}$
(D) $500-1000^{\circ} \mathrm{C}$

| 104 | 03-12-2020 | 226 | For a reciprocating pump, the indicator diagram is the graph between the <br> (A) Discharge and overall efficiency <br> (B) Volume swept by piston for one complete revolution and the pressure in the cylinder <br> (C) Angle swept by the crank pin at any instant and the discharge <br> (D) None of the options | (B) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 227 | Centre of gravity of a solid cone lies on the axis at the height <br> (A) One fourth of the total height above base <br> (B) One third of the total height above base <br> (C) One half of the total height above base <br> (D) Three eighth of the total height above base | (A) |
| 104 | 03-12-2020 | 228 | Deformation per unit length in the direction of force is known as <br> (A) Strain <br> (B) Lateral Strain <br> (C) Linear Strain <br> (D) Linear Stress | (C) |
| 104 | 03-12-2020 | 229 | Weld decay is the phenomenon found with <br> (A) Cast iron <br> (B) mild steel <br> (C) non ferrous materials <br> (D) stainless steel | (D) |
| 104 | 03-12-2020 | 230 | The hardness of steel increases if it contains <br> (A) Austenite | (B) |

(B) Martensite
(C) Pearlite
(D) Cementite

An automobile steering gear is an example of
(A) Sliding pair
(B) Rolling pair
(C)
(C) Lower pair
(D) Higher pair

The Scott-Russell mechanism consists of
(A) Sliding and turning pairs
(B) Sliding and rotary pairs
(C) Turning and rotary pairs
(D) Sliding pairs only

Angle of descent of cam is defined as the angle
(A) During which the follower returns to its initial position
(B) Of rotation of the cam for a definite displacement of the follower
(C) Through which the cam rotates during the period in which the follower remains in the highest position
(D) Moved by the cam from the instant the follower begins to rise, till it reaches its highest position
(A) position

A porter governor could be classified as
(A) dead weight type governor
(B) centrifugal type governor
(C) inertia type governor

Question Withdrawn
(D) pendulum type governor

The critical speed of a shaft depends upon its
(A) mass
(B) stiffness
(C)
(C) mass and stiffness
(D) stiffness and eccentricity

For welding mild steel, the following arc welding is most suitable
(A) AC, straight polarity
(B) DC, straight polarity
(C) AC, reverse polarity
(D) DC, reverse polarity

Forge welding is best suited for
(A) Stainless steel
(B) High carbon steel
(D)
(C) Cast iron
(D) Wrought iron

Low hydrogen electrodes are baked prior to use in order that
(A) Proper strength is obtained
(B) Welding is free from arc blow
(C) Welding is free from moisture pick up
(D) Current required is minimum

Which of the following process would produce strongest components
(A) Die casting
(B) Hot rolling
(C) Forging
(D) Cold rolling

| 104 | 03-12-2020 | 240 | In micro-motion study, therblig is described by <br> (A) A symbol <br> (B) An event <br> (C) Standard symbol and colour <br> (D) An activity | (D) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 241 | A computer program that translates one program instructions at a time into machine language is called a/an <br> (A) Interpreter <br> (B) CPU <br> (C) Compiler <br> (D) Simulator | (A) |
| 104 | 03-12-2020 | 242 | In which operation on a work piece on lathe, the spindle speed will be least? <br> (A) Finishing <br> (B) Thread cutting <br> (C) Parting off <br> (D) Taper turning | (B) |

The clearance in blanking operation is provided on
(A) die
(B) punch
(B)
(C) half on die and half on punch
(D) die or punch depending on material and thickness of sheet

| 104 | 03-12-2020 | 244 | Cope in foundry practice refers to <br> (A) bottom half of moulding box <br> (B) top half of moulding box <br> (C) middle portion of the moulding box <br> (D) coating on the mould face | (B) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 245 | Coining is the operation of <br> (A) cold forging <br> (B) hot forging <br> (C) cold extrusion <br> (D) piercing | (A) |
| 104 | 03-12-2020 | 246 | The main criteria for the selection of electrode diameter in arc welding is <br> (A) material to be welded <br> (B) type of welding process <br> (C) thickness of material <br> (D) voltage used | (C) |
| 104 | 03-12-2020 | 247 | The welding of stainless steel is generally difficult because of the following reason <br> (A) rust formation takes place <br> (B) high melting temperature of stainless steel <br> (C) formation of oxide film <br> (D) formation of chromium carbide | (C) |
| 104 | 03-12-2020 | 248 | In automobiles, power is transmitted from gearbox to differential through <br> (A) universal joint <br> (B) Hooke's joint | (B) |

(C) knuckle joint
(D) Oldham's coupling

If a more stiff spring is used in a Hartnell governor, then the governor will be
(A) more sensitive
(B) less sensitive
(B)
(C) sensitivity remains unaffected
(D) None of the options

The behaviour of gas laws can be fully determined by
(A) 1 law
(B) 2 laws
(C) 3 laws
(D) 4 laws
(D)

The centre of gravity of a right angled solid cone of height $h$ lies at the following distance from the base
(A) $h / 2$
(B) $h / 3$
(C) h/4
(D) $3 \mathrm{~h} / 5$
(C)
(C)
(D)


| 104 | 03-12-2020 | 258 | Which of the following refers to a small, singlesite network? <br> (A) LAN <br> (B) DSL <br> (C) RAM <br> (D) USB | (A) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 259 | Critical Path Method (CPM) is <br> (A) time oriented technique <br> (B) activity oriented technique <br> (C) event oriented technique <br> (D) target oriented technique | (B) |
| 104 | 03-12-2020 | 260 | Precision of measuring equipment is <br> (A) The closeness with which a measurement can be read directly from a measuring instrument <br> (B) A measure of how close the reading is to the true size <br> (C) The difference between measured value and actual value <br> (D) The smallest change in measurand that can be measured | (A) |
| 104 | 03-12-2020 | 261 | The surface roughness on a drawing is represented by <br> (A) circles <br> (B) squares <br> (C) zig-zag lines <br> (D) triangles | (D) |
| 104 | 03-12-2020 | 262 | Indicator diagram of a reciprocating pump is a graph between | (B) |



| 104 | 03-12-2020 | 267 | Resilience of a material is considered when it is subjected to <br> (A) frequent heat treatment <br> (B) fatigue <br> (C) creep <br> (D) shock loading | (D) |
| :---: | :---: | :---: | :---: | :---: |
| 104 | 03-12-2020 | 268 | Rivets are made of following type of material <br> (A) tough <br> (B) hard <br> (C) resilient <br> (D) ductile | (D) |
| 104 | 03-12-2020 | 269 | The melting point of filler material in brazing should be above <br> (A) $420^{\circ} \mathrm{C}$ <br> (B) $600^{\circ} \mathrm{C}$ <br> (C) $820^{\circ} \mathrm{C}$ <br> (D) $900^{\circ} \mathrm{C}$ | (A) |
| 104 | 03-12-2020 | 270 | Compressed air coming out of punctured football <br> (A) becomes hotter <br> (B) becomes cooler <br> (C) remains at same temperature <br> (D) may becomes hotter or cooler depending upon the humidity of surrounding air | (B) |

