Subject Code : 109 V

| Subject Code | Exam Date | $\begin{aligned} & Q \\ & \text { Id } \end{aligned}$ | Questions | Answer Key |
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| 109 | 31-03-2021 | 1 | In which of India's neighbouring countries, military has taken control recently? <br> (A) Pakistan <br> (B) Myanmar <br> (C) Sri Lanka <br> (D) Bangladesh | (B) |
| 109 | 31-03-2021 | 2 | Which Indian monument was lit on January 30, 2021 to observe the Neglected Tropical Diseases (NTD) Day? <br> (A) India Gate <br> (B) Golden Temple <br> (C) Taj Mahal <br> (D) Qutub Minar | (D) |
| 109 | 31-03-2021 | 3 | Patanjali is well known for the compilation of - <br> (A) Yoga Sutra <br> (B) Panchatantra <br> (C) Brahma Sutra <br> (D) Ayurveda | (A) |
| 109 | 31-03-2021 | 4 | The metal whose salts are sensitive to light is <br> (A) Zinc <br> (B) Silver <br> (C) Copper <br> (D) Aluminum | (B) |


| 109 | 31-03-2021 | 5 | FRS stands for <br> (A) Federation of Regulation Society <br> (B) Fellow Research System <br> (C) Fellow of Royal Society <br> (D) None of the options | (C) |
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| 109 | 31-03-2021 | 6 | Replace the following with most appropriate meaning. <br> Study of languages <br> (A) Philology <br> (B) Theology <br> (C) Astrology <br> (D) Graphology | (A) |
| 109 | 31-03-2021 | 7 | 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: Innovation is work. <br> P: There are people who are clearly more talented innovators than the rest of us. <br> Q : It requires knowledge. <br> R : It also requires great ingenuity. <br> S : But that alone is not enough. <br> S6: And this is because they are able to imagine and conceive what we do not even consider possible. <br> (A) QSRP <br> (B) PQSR <br> (C) PRQS <br> (D) QPSR | (A) |
| 109 | 31-03-2021 | 8 | Give antonym for the word <br> 'CAMOUFLAGE' <br> (A) diligent | (D) |


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|  |  |  | (B) rest <br> (C) natural <br> (D) reveal |  |
| 109 | 31-03-2021 | 9 | 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 is resembling his father. <br> (A) No improvement <br> (B) resembles <br> (C) was resembling <br> (D) has resembled | (B) |
| 109 | 31-03-2021 | 10 | ..... many times every winter in Frankfurt. <br> (A) It snows <br> (B) It snowed <br> (C) It is snowing <br> (D) It is snow | (A) |
| 109 | 31-03-2021 | 11 | Dog : Rabies :: Mosquito : ? <br> (A) Plague <br> (B) Death <br> (C) Malaria <br> (D) Sting | (C) |
| 109 | 31-03-2021 | 12 | How many times in a day, are the hands of a clock in straight line but opposite in direction? <br> (A) 20 <br> (B) 22 | (B) |


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|  |  |  | (C) 24 <br> (D) 48 |  |
| 109 | 31-03-2021 | 13 | Look at this series: $\mathbf{E}, \mathbf{J}, \mathbf{O}, \mathbf{T}, \mathbf{Y},$ $\qquad$ <br> What should fill the blank? <br> (A) D <br> (B) Z <br> (C) C <br> (D) E | (A) |
| 109 | 31-03-2021 | 14 | A man walks 5 km toward South and then turns to the right. After walking 3 km he turns to the left and walks 5 km . Now in which direction is he from the starting place? <br> (A) East <br> (B) South-West <br> (C) North-West <br> (D) West | (B) |
| 109 | 31-03-2021 | 15 | Rita told Mani, "The girl I met yesterday at the beach was the youngest daughter of the brother-in-law of my friend's mother". How is the girl related to Rita's friend? <br> (A) Daughter-in-law <br> (B) Mother <br> (C) Sister-in-law <br> (D) Cousin | (D) |
| 109 | 31-03-2021 | 16 | The least perfect square, which is divisible by each of 21,36 and 66 is: <br> (A) 213444 | (A) |


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|  |  |  | (B) 214344 <br> (C) 214434 <br> (D) 231444 |  |
| 109 | 31-03-2021 | 17 | In a certain school, $20 \%$ of students are below 8 years of age. The number of students above 8 years of age is $2 / 3$ of the number of students of 8 years of age which is 48 . What is the total number of students in the school? <br> (A) 80 <br> (B) 90 <br> (C) 120 <br> (D) 100 | (D) |
| 109 | 31-03-2021 | 18 | Which of the following numbers should be added to 11158 to make it exactly divisible by 77 ? <br> (A) 9 <br> (B) 8 <br> (C) 7 <br> (D) 5 | (C) |
| 109 | 31-03-2021 | 19 | If $10 \%$ of an electricity bill is deducted, Rs 45 is still to be paid. How much was the bill? <br> (A) 50 <br> (B) 40 <br> (C) 35 <br> (D) 54 | (A) |
| 109 | 31-03-2021 | 20 | The price of rice falls by $20 \%$. How much rice can be bought now with the money that was sufficient to buy 20 kg of rice previously? <br> (A) 5 <br> (B) 15 | (C) |



|  |  |  | (B) increase <br> (C) remains same <br> (D) becomes equal to ultimate tensile strength |  |
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| 109 | 31-03-2021 | 26 | The component that supplies air-fuel mixture to engine is: <br> (A) pump <br> (B) carburettor <br> (C) injector <br> (D) filter | (B) |
| 109 | 31-03-2021 | 27 | Open circuit voltage for arc welding is of the order of <br> (A) 18-40 VOLTS <br> (B) 40-95 VOLTS <br> (C) 100-125 VOLTS <br> (D) 130-170 VOLTS | (B) |
| 109 | 31-03-2021 | 28 | Which of the following is a copper free alloy? <br> (A) brass <br> (B) Phosphor bronze <br> (C) invar <br> (D) muntz metal | (C) |
| 109 | 31-03-2021 | 29 | The size of lathe is specified by <br> (A) height of centres <br> (B) length between centres <br> (C) swing diameter over the bed <br> (D) All of the options | (D) |
| 109 | 31-03-2021 | 30 | The primary memory of a personal computer consists <br> (A) RAM only | (C) |


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|  |  |  | (B) ROM only <br> (C) RAM and ROM <br> (D) Memory module |  |
| 109 | 31-03-2021 | 31 | In turning operation, with decrease in diameter of work, the spindle speed must <br> (A) increase <br> (B) decrease <br> (C) remains same <br> (D) None of the options | (A) |
| 109 | 31-03-2021 | 32 | A 15 mm drilling machine means, it can drill holes <br> (A) of maximum 15 mm diameter <br> (B) in 15 thick plates <br> (C) of 15 mm cross-sectional area <br> (D) None of the options | (A) |
| 109 | 31-03-2021 | 33 | Grinding ratio varies in the range <br> (A) 10 to 20 <br> (B) 30 to 60 <br> (C) 60 to 75 <br> (D) 75 to 125 | (D) |
| 109 | 31-03-2021 | 34 | A single V and single U-butt welds are for sheets of approximate thickness <br> (A) 1 to 5 mm <br> (B) 5 to 15 mm <br> (C) 15 to 25 mm <br> (D) more than 25 mm | (B) |
| 109 | 31-03-2021 | 35 | The material of a rubber balloon has a poisson's ratio | (D) |


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|  |  |  | of 0.5 . If uniform pressure is applied to blow the balloon, the volumetric strain of the material will be <br> (A) 0.5 <br> (B) 0.25 <br> (C) 0.2 <br> (D) Zero |  |
| 109 | 31-03-2021 | 36 | Which of the following is not considered as a risk in project management? <br> (A) Specification delays <br> (B) Force Majeure <br> (C) Testing <br> (D) Staff turnover | (C) |
| 109 | 31-03-2021 | 37 | The average percentage of carbon in petrol is roughly <br> (A) 85 percent <br> (B) 65 percent <br> (C) 50 percent <br> (D) 35 percent | (A) |
| 109 | 31-03-2021 | 38 | The tool material for faster machining should have <br> (A) wear resistance <br> (B) red hardness <br> (C) toughness <br> (D) All of the options | (D) |
| 109 | 31-03-2021 | 39 | Humidity ratio is also called <br> (A) relativity humidity <br> (B) specific humidity <br> (C) absolute humidity | (B) |



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|  |  |  | (B) earth <br> (C) phase <br> (D) Any of the options |  |
| 109 | 31-03-2021 | 45 | A transformer transforms <br> (A) only current <br> (B) only voltage <br> (C) power <br> (D) frequency | (C) |
| 109 | 31-03-2021 | 46 | Specific heat of a certain ideal gas is $0.98 \mathrm{~kJ} / \mathrm{kg}$.k at constant pressure. If 2 kg of this gas is heated at constant pressure from 25 degree celsius to 225 degree celsius estimate the charge in enthalpy. <br> (A) 392 KJ <br> (B) 232 KJ <br> (C) 10 KJ <br> (D) 543 KJ | (A) |
| 109 | 31-03-2021 | 47 | Lathe bed is made of <br> (A) mild steel <br> (B) cast iron <br> (C) close grain cast iron <br> (D) pig iron | (C) |
| 109 | 31-03-2021 | 48 | Weld decay is the phenomenon found with <br> (A) Cast iron <br> (B) Mild steel <br> (C) Wrought iron <br> (D) Stainless steel | (D) |
| 109 | 31-03-2021 | 49 | A test commonly applied to steel of unknown quality | (B) |


(B) 900 degree Celsius
(C) 627 degree Celsius
(D) 927 degree Celsius

Octane number is determined by comparing the performance of the petrol with the following hydrocarbon.
(A) Iso-octane
(B) Mixture of normal heptane and iso-octane
(C) Alpha methyl naphthalene
(D) Mixture of methane and ethane

Indicator diagram of a reciprocating pump is a graph between:
(A) Flow vs swept volume
(B) Pressure in cylinder vs swept volume
(C) Flow vs speed
(D) Pressure vs speed

If pump NPSH requirements are not satisfied,
(A) It will not develop head
(B) It will be cavitated
(C) Efficiency will be low
(D) It will consume excessive power

57 Runaway speed of a hydraulic turbine corresponds to the condition of
(A) Runner revolving freely without load and with the gates wide open
(B) Critical speed
(C) Breakage of runner

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|  |  |  | (D) Speed obtained when load is suddenly disconnected |  |
| 109 | 31-03-2021 | 58 | Which of the following layout is suited to job production? <br> (A) Process layout <br> (B) Product layout <br> (C) Fixed position layout <br> (D) Plant layout | (A) |
| 109 | 31-03-2021 | 59 | Bin card is used in <br> (A) Administrative wing <br> (B) Workshop <br> (C) Foundry shop <br> (D) Stores | (D) |
| 109 | 31-03-2021 | 60 | Which of the following instrument is most accurate? <br> (A) Vernier Calliper <br> (B) Manometric screw gauge <br> (C) Optical projector <br> (D) Mechanical comparator | (C) |
| 109 | 31-03-2021 | 61 | A sine bar is specified by <br> (A) its total length <br> (B) Centre distance between the two rollers <br> (C) Size of the rollers <br> (D) Distance between rollers and upper surface | (B) |
| 109 | 31-03-2021 | 62 | If the intake air temperature of IC engine increases, its efficiency will <br> (A) increase <br> (B) decrease | (B) |

(C) remains same
(D) depend on other factors

| 109 | 31-03-2021 | 63 | A 75 cc engine has following parameter as 75 cc <br> (A) Fuel tank capacity <br> (B) Swept volume <br> (C) Cylinder volume <br> (D) Clearance volume | (B) |
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| 109 | 31-03-2021 | 64 | Lancashire boiler is a <br> (A) Stationary fire tube boiler <br> (B) Stationary water tube boiler <br> (C) water tube boiler with natural / forced circulation <br> (D) Mobile fire tube boiler | (A) |


| 109 | 31-03-2021 | 65 | Which of the following is fastest form of memory? <br> (A) Hard disc <br> (B) Registers <br> (C) Main memory <br> (D) Cache memory | (B) |
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| 109 | 31-03-2021 | 66 | Which of the following error will be handled by the operating system? <br> (A) Power failure <br> (B) Connection failure in the network <br> (C) Lack of paper in the printer <br> (D) All of the options | (D) |
| 109 | 31-03-2021 | 67 | The process of diffusion of one liquid into the other through a semi-permeable membrane is called <br> (A) Viscosity | (B) |



