Subject Code : 106

| Subject <br> Code | Exam Date | Q <br> Id | Questions |
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|  |  |  | Who among following was declared by the <br> UN as "the most famous teenager in the <br> world" in its 'Decade in Review' report in Dec <br> 2019? |
| Key |  |  |  |


|  |  |  | inaugurated by PM Modi? <br> (A) Oil and Natural Gas Corporation <br> (B) GAIL India Ltd <br> (C) Bharat Heavy Electricals Limited <br> (D) Petronet LNG |  |
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| 106 | 30-03-2021 | 425 | In Jan 2021, Union Cabinet approved the MoU with which country to send Indian Specified Skilled Workforce to work in 14 professional sectors of that country? <br> (A) Japan <br> (B) Malaysia <br> (C) Singapore <br> (D) South Korea | (A) |
| 106 | 30-03-2021 | 426 | Replace the underlined part with an appropriate meaning. <br> He sold his house for a song. <br> (A) very cheaply <br> (B) at a discount <br> (C) at a premium <br> (D) at a reasonable price | (A) |
| 106 | 30-03-2021 | 427 | 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: She said on the phone that she would report for duty next day. <br> P : We waited for few days then we decided to go to her place. <br> Q : But she did not. | (A) |


|  |  |  | R: We found it locked. <br> S : Even after that we waited for her quite a few days. <br> S6: Eventually we reported to the police. <br> (A) QPRS <br> (B) PQSR <br> (C) PRQS <br> (D) QPSR |  |
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| 106 | 30-03-2021 | 428 | Give antonym for the word 'ZENITH' <br> (A) acme <br> (B) nadir <br> (C) climax <br> (D) pinnacle | (B) |
| 106 | 30-03-2021 | 429 | 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> The record for the biggest tiger hunt has not been met since 1911 when Lord Hardinge, then Viceroy of India, shot a tiger that measured 11 feet and 6 inches. <br> (A) No improvement <br> (B) improved <br> (C) broken <br> (D) better | (C) |
| 106 | 30-03-2021 | 430 | Fill up with most appropriate option: | (C) |


|  |  |  | It took the child a long time to recover $\qquad$ the shock. <br> (A) over <br> (B) under <br> (C) from <br> (D) about |  |
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| 106 | 30-03-2021 | 431 | 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> Writing <br> (A) Author <br> (B) Novel <br> (C) Skills <br> (D) Pen | (D) |
| 106 | 30-03-2021 | 432 | Choose the word which is least like the others in a group? <br> (A) Mason <br> (B) Engineer <br> (C) Blacksmith <br> (D) Mechanic | (D) |
| 106 | 30-03-2021 | 433 | Look at this series: $12,38,116,350,1052, ?$ <br> What number should be the last? <br> (A) 2200 <br> (B) 3158 <br> (C) 1800 <br> (D) 2800 | (B) |


| 106 | 30-03-2021 | 434 | $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}, \& \mathrm{H}$ are eight friends. They are sitting on the circumference of a circular ground. Some of them are facing the center \& some are facing outside. The person facing the center, who is second to the left of B is A \& is third to the left of H. H, F, G \& E are not facing the center. D is at the left of H \& second to the right of $\mathrm{C} . \mathrm{G}$ is not the neighbour of $B \& F$. $E$ is second to the left of $G$, who is second to the left of $F$. Who is fourth to the left of D? <br> (A) B <br> (B) C <br> (C) F <br> (D) A | (A) |
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| 106 | 30-03-2021 | 435 | E is the sister of $\mathrm{B} . \mathrm{A}$ is the father of $\mathrm{C} . \mathrm{B}$ is the son of C. So how is A related to E ? <br> (A) Grandfather <br> (B) Brother <br> (C) Father <br> (D) Grandson | (A) |
| 106 | 30-03-2021 | 436 | Two girls move in opposite directions, one from $A$ to $B$ and other from $B$ to $A$. The girl from A reaches the destination in 16 hrs and girl from B reaches her destination in 25 hrs , after having met. If former's speed is $25 \mathrm{~km} / \mathrm{hr}$, what will be the speed of latter? <br> (A) $10 \mathrm{~km} / \mathrm{hr}$ <br> (B) $20 \mathrm{~km} / \mathrm{hr}$ <br> (C) $12 \mathrm{~km} / \mathrm{hr}$ <br> (D) $16 \mathrm{~km} / \mathrm{hr}$ | (B) |
| 106 | 30-03-2021 | 437 | The ratio of Rohan's age 4 years ago and Rahul's age after 4 years is $1: 1$. If at present, | (B) |


|  |  |  | the ratio of their ages is $5: 3$, then find the ratio between Rohan's age 4 years hence and Rahul's age 4 years ago. <br> (A) $1: 3$ <br> (B) $3: 1$ <br> (C) $4: 3$ <br> (D) $3: 4$ |  |
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| 106 | 30-03-2021 | 438 | Gopal and Ravi contracted a work for Rs 480. If Gopal can do that work in 15 days and Ravi can complete that same work in 10 days. He completed this work with Mahesh in 5 days, then how much money Mahesh got. <br> (A) Rs. 80 <br> (B) Rs. 120 <br> (C) Rs. 160 <br> (D) Rs. 40 | Question Withdrawn |
| 106 | 30-03-2021 | 439 | The price of 10 chairs is equal to that of 4 tables. The price of 15 chairs and 2 tables together is Rs. 4000 . The total price of 12 chairs and 3 tables is: <br> (A) Rs. 3800 <br> (B) Rs. 3400 <br> (C) Rs. 3900 <br> (D) Rs. 3500 | (C) |
| 106 | 30-03-2021 | 440 | The length of a rectangle is twice its breadth. If its length is decreased by 5 cm and the breadth is increased by 5 cm , the area of the rectangle is increased by $75 \mathrm{~cm}^{2}$. Therefore, the length of the rectangle in cm is ? <br> (A) 20 <br> (B) 30 | (C) |


|  |  |  | (C) 40 <br> (D) 50 |  |
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| 106 | 30-03-2021 | 441 | The current passing through a circuit is 7.2 A and the power at the terminals is 27 watts. Resistance is $\qquad$ ohms. <br> (A) 0.5402 <br> (B) 0.5208 <br> (C) 0.5972 <br> (D) 0.5792 | (B) |
| 106 | 30-03-2021 | 442 | $\mathrm{R} 1=1 \Omega, \mathrm{R} 2=3 \Omega, \mathrm{R} 3=5 \Omega$ and $\mathrm{R} 4=7 \Omega$ are connected in series. Total voltage $=20 \mathrm{~V}$. Calculate Current I, and voltage V2 across resistance R2. <br> (A) $\mathrm{I}=1.23, \mathrm{~V} 2=3.75$ <br> (B) $\mathrm{I}=1.25, \mathrm{~V} 2=3.75$ <br> (C) $\mathrm{I}=1.15, \mathrm{~V} 2=3.73$ <br> (D) $\mathrm{I}=1.16, \mathrm{~V} 2=3.72$ | (B) |
| 106 | 30-03-2021 | 443 | The base of a transistor is $\qquad$ doped <br> (A) heavily <br> (B) moderately <br> (C) lightly <br> (D) None of the options | (C) |
| 106 | 30-03-2021 | 444 | A series resistance is connected in the zener circuit to $\qquad$ <br> (A) properly reverse bias the zener <br> (B) protect the zener <br> (C) properly forward bias the zener | (B) |


|  |  |  | (D) None of the options |  |
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| 106 | 30-03-2021 | 445 | The equivalent area when multiplied by the instant power density which leads to free radiation of power at antenna is called as <br> (A) Loss area <br> (B) Scattering area <br> (C) Captured area <br> (D) Effective area | (B) |
| 106 | 30-03-2021 | 446 | The radiation efficiency for antenna having radiation resistance $36.15 \Omega$ and loss resistance $0.85 \Omega$ is given by $\qquad$ <br> (A) 0.977 <br> (B) 0.799 <br> (C) 0.997 <br> (D) 0.779 | (A) |
| 106 | 30-03-2021 | 447 | Damper windings are made of $\qquad$ <br> (A) Copper <br> (B) Iron <br> (C) Silicon <br> (D) Cast Iron | (A) |


| 106 | 30-03-2021 | 448 | Which of the following is not a valid C variable name? <br> (A) int number; <br> (B) float rate; <br> (C) int variable_count; <br> (D) int \$main; | (D) |
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| 106 | 30-03-2021 | 449 | In an ideal op-amp, which is not true? <br> (A) Open loop voltage gain is infinite <br> (B) Input resistance is infinite <br> (C) Slew rate is infinite <br> (D) CMRR is zero | (D) |
| 106 | 30-03-2021 | 450 | Which of the following class of amplifier has the poorest linearity? <br> (A) Class A <br> (B) Class B <br> (C) Class C <br> (D) Class AB | (C) |
| 106 | 30-03-2021 | 451 | Negative resistance are incorporated in oscillator for $\qquad$ <br> (A) Sustained oscillation <br> (B) Damped oscillation <br> (C) Biasing the oscillator <br> (D) Increasing amplitude of oscillation | (A) |
| 106 | 30-03-2021 | 452 | Which type of oscillators is used in timing elements? <br> (A) RC oscillator | (C) |


|  |  |  | (B) LC oscillator <br> (C) Crystal oscillator <br> (D) Weinbridge oscillator |  |
| :---: | :---: | :---: | :---: | :---: |
| 106 | 30-03-2021 | 453 | $\qquad$ provides only sinusoidal signal at the output. <br> (A) Oscillator <br> (B) signal generator <br> (C) DC Tachometer generator <br> (D) None of the options | (A) |
| 106 | 30-03-2021 | 454 | $\qquad$ oscillator is used in the AF sine \& square wave generator. <br> (A) Phase shift oscillator <br> (B) crystal oscillator <br> (C) Wein bridge oscillator <br> (D) Hartley oscillator | (C) |
| 106 | 30-03-2021 | 455 | What is the principle of fibre optical communication? <br> (A) Frequency modulation <br> (B) Population inversion <br> (C) Total internal reflection <br> (D) Doppler Effect | (C) |
| 106 | 30-03-2021 | 456 | $\qquad$ is an instrument which provides different types of waveforms whose frequency values can be varied and adjusted over a wide range ( 1 HZ to several hundred KHZ) <br> (A) Function generator <br> (B) signal generator | (A) |

(C) Oscillator
(D) DC Tachometer generator

Duty cycle of a square wave generator is
(A) $10 \%$
(B) $25 \%$
(D)
(C) $30 \%$
(D) $50 \%$

The principle views associated with orthographic projection are
(A) Front View
(B) Right side view
(D)
(C) Top view
(D) All of the options

Hatching lines are drawn at $\qquad$ degree to reference line
(A) 30
(B) 45
(C) 60
(D) 90
(B)

The isometric projection of a sphere is a
(A) Circle
(B) Ellipse
(C) Hyperbola

| 106 | 30-03-2021 | 461 | There are two main types of projection in drawings <br> (A) Parallel and Orthographic <br> (B) Station-point and Perspective <br> (C) Parallel and Convergent <br> (D) Perspective and Parallel | (D) |
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| 106 | 30-03-2021 | 462 | Which of the following pairs are correctly matched. <br> A. SYNCHRO PAIR : WIND VANE <br> B. MAGNETRON : RADAR <br> C. KLYSTRON : GYRO <br> (A) Only A is correctly matched <br> (B) Only B is correctly matched <br> (C) A and B but not C <br> (D) B and C but not A | (C) |
| 106 | 30-03-2021 | 463 | The $\qquad$ is an analog component that has two inputs, one inverting and the other noninverting, and a single output terminal. <br> (A) counter <br> (B) op amp <br> (C) register <br> (D) flip-flop | (B) |
| 106 | 30-03-2021 | 464 | What do you call an electronic component that is a non linear resistor and its resistance is function of voltage across it? <br> (A) Triac <br> (B) IC | (C) |


|  |  |  | (C) Varistor <br> (D) Thyristor |  |
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| 106 | 30-03-2021 | 465 | In a Wien-bridge oscillator for obtaining 160 Hz frequency output what will be the capacitor value if resistance is selected as $1 K \Omega$ ? <br> (A) $10 \mu \mathrm{~F}$ <br> (B) $1 \mu \mathrm{~F}$ <br> (C) 1 nF <br> (D) 10 nF | (B) |
| 106 | 30-03-2021 | 466 | Skin effect occurs when a conductor carries current at $\qquad$ frequencies <br> (A) Very low <br> (B) Low <br> (C) Medium <br> (D) High | (D) |
| 106 | 30-03-2021 | 467 | A queue is also known as <br> (A) Flash memory <br> (B) FILO memory <br> (C) FIFO memory <br> (D) None of the options | (C) |


| 106 | 30-03-2021 | 468 | If we say microcontroller is 8 -bit then here 8-bit denotes size of: <br> (A) Data Bus <br> (B) ALU <br> (C) Control Bus <br> (D) Address Bus | (B) |
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| 106 | 30-03-2021 | 469 | A capacitor and coil in parallel is called <br> (A) A tuned circuit <br> (B) A timing circuit <br> (C) A delay circuit <br> (D) A schmitt circuit | (A) |
| 106 | 30-03-2021 | 470 | Hartely oscillator is commonly used in <br> (A) Radio receivers <br> (B) Radio transmitters <br> (C) TV receivers <br> (D) None of the options | (A) |
| 106 | 30-03-2021 | 471 | A $415 \mathrm{~V}, 50 \mathrm{~Hz}$ induction motor with 1000 rpm speed will have <br> (A) 2 poles <br> (B) 6 poles <br> (C) 4 poles <br> (D) 8 poles | (B) |
| 106 | 30-03-2021 | 472 | A large AC motor has a maximum ambient temperature rating of 40 deg C . Which one of the following will occur, if the motor is continuously operated at rated load with an ambient temperature of 50 deg C . | (A) |


|  |  |  | (A) Accelerated breakdown of the motor winding insulation, leading to a short circuit within the motor windings. <br> (B) Accelerated embrittlement of motor windings, leading to a open circuit within the motor windings. <br> (C) Accelerated breakdown of the motor winding insulation, leading to a open circuit within the motor windings. <br> (D) Accelerated embrittlement of motor windings, leading to a short circuit within the motor windings. |  |
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| 106 | 30-03-2021 | 473 | What is a Balun? <br> (A) A twisted wire <br> (B) It unbalances the balanced systems <br> (C) It is used to balance the unbalanced systems <br> (D) Main beam of antenna with large beam width | (C) |
| 106 | 30-03-2021 | 474 | Arrange the following communication systems in increasing order of their available commercial bandwidth. <br> 1. Satellite Communication System <br> 2. Amplitude Modulated System <br> 3. Frequency Modulated System <br> 4. Two- line transmission system <br> (A) 4, 2, 3, 1 <br> (B) 1, 2, 3, 4 <br> (C) $4,3,2,1$ <br> (D) 1, 3, 2, 4 | (A) |
| 106 | 30-03-2021 | 475 | The number system for the machine code of the microprocessor 8085 is | (D) |


|  |  |  | (A) BCD <br> (B) Octal <br> (C) Binary <br> (D) Hexadecimal |  |
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| 106 | 30-03-2021 | 476 | In the statement "COUT << "javatpoint" $\ll$ end1;", end1 is a -. $\qquad$ <br> (A) Extractor <br> (B) Inserter <br> (C) Terminator <br> (D) Manipulator | (D) |
| 106 | 30-03-2021 | 477 | A basic S-R flip-flop can be constructed by cross-coupling of which basic logic gates? <br> (A) AND or OR gates <br> (B) XOR or XNOR gates <br> (C) NOR or NAND gates <br> (D) AND or NOR gates | (C) |
| 106 | 30-03-2021 | 478 | Any signal present in a circuit other than the desired signal is known as <br> (A) Noise <br> (B) Distortion <br> (C) interference <br> (D) All of the options | (A) |
| 106 | 30-03-2021 | 479 | Choose the correct statement regarding the term 'Attenuation'. <br> (A) Conversion of one form of energy to another form. <br> (B) Low frequency message signal is | (C) |


|  |  |  | superimposed on a high frequency carrier wave. <br> (C) The loss of strength of a signal while propagating through a medium. <br> (D) Process of increasing strength of a signal. |  |
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| 106 | 30-03-2021 | 480 | If the peak transmitted power in a radar system is increased by a factor of 16 , the maximum range will be increased by a factor <br> (A) 2 <br> (B) 4 <br> (C) 8 <br> (D) 16 | (A) |
| 106 | 30-03-2021 | 481 | A galvanometer in series with high resistance is called <br> (A) Ammeter <br> (B) Voltmeter <br> (C) Wattmeter <br> (D) None of the options | (B) |
| 106 | 30-03-2021 | 482 | In DOL, fuses are provided to protect against <br> (A) Short circuit <br> (B) Over voltage <br> (C) Over current <br> (D) Over load | (A) |
| 106 | 30-03-2021 | 483 | Which of the following is used for amplification of microwave energy? <br> (A) Travelling Wave Tube <br> (B) Magnetron | (A) |


|  |  |  | (C) Reflex Klystron <br> (D) Gunn Diode |  |
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| 106 | 30-03-2021 | 484 | The method of adding external resistance on rotor side for controlling the speed of induction motors is not applicable for: <br> (A) Slip ring induction motor <br> (B) Squirrel cage induction motor <br> (C) Both Slip ring \& Squirrel cage induction motor <br> (D) None of the options | (B) |
| 106 | 30-03-2021 | 485 | Parity bits are used in digital systems for the purpose of: <br> (A) Error detection <br> (B) Error correction <br> (C) Decoding <br> (D) None of the options | (A) |
| 106 | 30-03-2021 | 486 | From the following transducers which one is used for position feedback in servomechanisms: <br> (A) Capacitive transducers <br> (B) Inductive transducers <br> (C) Photo electric transducer <br> (D) Differential transformer transducer | (D) |
| 106 | 30-03-2021 | 487 | Choose the advantages of Electronic voltmeter over conventional voltmeter: <br> I. Able to detect very weak signals <br> II. Low input impedance <br> III. Low power consumption <br> (A) (I) and (II) only | (C) |

(B) (III) only
(C) (I) and (III) only
(D) (I), (II) and (III)

| 106 | 30-03-2021 | 488 | The type of control system incorporated with one or more feedback paths are called as: <br> (A) Closed loop control system <br> (B) Open loop control system <br> (C) Both closed and open loop control systems <br> (D) None of the options | (A) |
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| 106 | 30-03-2021 | 489 | The maximum torque in an induction motor depends on <br> (A) Frequency <br> (B) Rotor inductive Reactance <br> (C) Square of supply voltage <br> (D) All of the options | (D) |
| 106 | 30-03-2021 | 490 | In an AM wave, the majority of the power is in <br> (A) Lower sideband <br> (B) Upper sideband <br> (C) Carrier <br> (D) None of the options | (C) |

