Andhra Pradesh State Council of Higher Education

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	Computer Science and Engineering 20th June 2023 Shift 1
Duration :	180
Total Marks :	200
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No

Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Mathematics

Section Id :	418099368
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	50
Section Marks :	50
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 41809918403 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\Delta = \begin{vmatrix} 1 & 1 & 1 \\ 1 & 1+x & 1 \\ 1 & 1 & 1+y \end{vmatrix}$ for $x \neq 0$ and $y \neq 0$, then Δ is

Options :

1. ✖ Divisible by x but not y

2. ✖ Divisible by y but not x

3. ✔

Divisible by both x & y

Divisible by neither x nor y

4. ✖

Question Number : 2 Question Id : 41809918404 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $x^a y^b = e^m$ and $x^c y^d = e^n$, $\Delta_1 = \begin{vmatrix} m & b \\ n & d \end{vmatrix}$, $\Delta_2 = \begin{vmatrix} a & m \\ c & n \end{vmatrix}$ and $\Delta_3 = \begin{vmatrix} a & b \\ c & d \end{vmatrix}$

Then the values of x *and* y *are*

Options :

1. ✖ $\frac{\Delta_1}{\Delta_3}$ *and* $\frac{\Delta_2}{\Delta_3}$

2. ✖ $\frac{\Delta_2}{\Delta_1}$ *and* $\frac{\Delta_3}{\Delta_1}$

3. ✖ $\log\left(\frac{\Delta_1}{\Delta_3}\right)$ *and* $\log\left(\frac{\Delta_2}{\Delta_3}\right)$

4. ✔ $e^{\left(\frac{\Delta_1}{\Delta_3}\right)}$ *and* $e^{\left(\frac{\Delta_2}{\Delta_3}\right)}$

Question Number : 3 Question Id : 41809918405 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

If $A=\begin{bmatrix}0 & 1 & 2\\ 1 & 2 & 3\\ 3 & a & 1\end{bmatrix}$ and $A^{-1}=\begin{bmatrix}1/2 & 1/2 & 1/2\\ -4 & 3 & c\\ 5/2 & -3/2 & 1/2\end{bmatrix}$ then the values of

a *and* c are equal to

Options :

1. ✖ 1 and 1

2. ✔ 1 and -1

3. ✖ 1 and 2

4. ✖ -1 and 1

Question Number : 4 Question Id : 41809918406 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $adj\ B = A$, $|P| = |Q| = 1$ *then* $adj\left(Q^{-1}BP^{-1}\right)$ is

Options :

1. ✖ PQ

2. ✖ QAP

3. ✔ PAQ

4. ✖ $PA^{-1}Q$

Question Number : 5 Question Id : 41809918407 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The value of x if the matrix $A=\begin{bmatrix} 0 & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix}$ satisfies the equation

$A^TA=I$

Options :

1. ✔ $\pm\frac{1}{\sqrt{2}}$

2. ✖ $\pm\frac{1}{\sqrt{3}}$

3. ✖ $\pm\frac{1}{\sqrt{6}}$

4. ✖ $\pm\frac{1}{2\sqrt{2}}$

Question Number : 6 Question Id : 41809918408 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\frac{(x+1)}{(x-a)(x-3)}=\frac{2}{x-a}+\frac{b}{x-3}$ then $(a\,,b\,)=$

Options :

1. ✖ $(-4\,,1\,)$

2. ✔ $(7\,,-1\,)$

3. ✖ $(4\,,1\,)$

4. ✖ $(-4\,,-1\,)$

Question Number : 7 Question Id : 41809918409 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\frac{(x+1)^2}{x^3+x}=\frac{A}{x}+\frac{Bx+C}{x^2+1}$, then $\sin^{-1}\left(\frac{A}{C}\right)=$

Options :

1. ✖ $\frac{\pi}{2}$

2. ✖ $\frac{\pi}{3}$

3. ✖ $\frac{\pi}{4}$

4. ✔ $\frac{\pi}{6}$

Question Number : 8 Question Id : 41809918410 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $4n\alpha = \pi$, then $\cot\alpha \cot 2\alpha \cot 3\alpha \ldots \cot(2n-1)\alpha$ *is equal to*

Options :

1. ✔ 1

2. ✖ -1

3. ✖ ∞

4. ✖ π

Question Number : 9 Question Id : 41809918411 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\frac{\tan 3A}{\tan A} = k$, *then* $\frac{\sin 3A}{\sin A}$ *is equal to*

Options :

1. ✖ $\frac{2k}{k-1}, k \in R$

2. ✖ $\frac{2k}{k-1}, k \in [1/3, 3]$

3. ✔ $\frac{2k}{k-1}, k \notin [1/3, 3]$

4. ✖ $\frac{k-1}{2k}, k \notin [1/3, 3]$

Question Number : 10 Question Id : 41809918412 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If two angles of a ΔABC are $45°$ and $60°$ then the ratio of smallest to greatest sides are

Options :

1. ✔ $(\sqrt{3}-1) : 1$

2. ✖ $\sqrt{3} : \sqrt{2}$

3. ✖ $1 : \sqrt{3}$

4. ✖ $\sqrt{3} : 1$

Question Number : 11 Question Id : 41809918413 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

If $\sin^{-1}x + \sin^{-1}y = \frac{2\pi}{3}$ then $\cos^{-1}x + \cos^{-1}y =$

Options :

1. ✖ $\frac{2\pi}{3}$

2. ✔ $\frac{\pi}{3}$

3. ✖ $\frac{\pi}{6}$

4. ✖ π

Question Number : 12 Question Id : 41809918414 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The value of $\tan\left\{\sin^{-1}\left(\cos\left(\sin^{-1}x\right)\right)\right\}\tan\left\{\cos^{-1}\left(\sin\left(\cos^{-1}x\right)\right)\right\}$, where

$0 < x < \pi/2$, *is equal to*

Options :

1. ✖ 0

2. ✔ 1

3. ✖ -1

4. ✖ 2

Question Number : 13 Question Id : 41809918415 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$If\ 0 \le x, y \le 2\pi\ and\ \sin x + \sin y = 2,\ then\ x + y =$

Options :

1. ✔ π

2. ✖ $\frac{\pi}{2}$

3. ✖ $\frac{\pi}{4}$

4. ✖ 3π

Question Number : 14 Question Id : 41809918416 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$\text{If} \sec\alpha\ and\ \text{cosec}\,\alpha$ are the roots of $x^2 - px + q = 0, then$

Options :

1. ✖ $p^2 = q(q-2)$

2. ✔ $p^2 = q(q+2)$

3. ✖ $p^2 + q^2 = 2q$

4. ✖ $p^2 + q^2 = q$

Question Number : 15 Question Id : 41809918417 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The value of $\cos\left(\frac{1}{2}\cos^{-1}\frac{1}{8}\right)$ is

Options :

1. ✔ $\frac{3}{4}$

2. ✖ $\frac{3}{8}$

3. ✖ $\frac{1}{16}$

4. ✖ $\frac{1}{4}$

Question Number : 16 Question Id : 41809918418 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If in ΔABC, sides a, b, c are in A.P. , then

Options :

1. ✖ $B > 60°$

2. ✔ $B \leq 60°$

3. ✖ $B = |A - C|$

4. ✖ $B = 90°$

Question Number : 17 Question Id : 41809918419 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In ΔABC if $b^2 + c^2 = 2a^2$, then the value of $\dfrac{\cot A}{\cot B + \cot C}$ is

Options :

1. ✔ $\frac{1}{2}$

2. ✖ $\frac{3}{2}$

3. ✖

$\frac{5}{2}$

4. ✖ $\frac{5}{3}$

Question Number : 18 Question Id : 41809918420 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Given that $z=(1+i\sqrt{3})^{100}$, *then* $\left(\frac{\text{Re}(z)}{\text{Im}(z)}\right)=$

Options :

1. ✖ 2^{100}

2. ✖ 2^{50}

3. ✔ $\frac{1}{\sqrt{3}}$

4. ✖ $\sqrt{3}$

Question Number : 19 Question Id : 41809918421 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Sum of the common roots of the equations

$z^3+2z^2+2z+1=0$ *and* $z^{1985}+z^{100}+1=0$ is

Options :

1. ✔ -1

2. ✖ 1

3. ✖ 0

4. ✖ 2

Question Number : 20 Question Id : 41809918422 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Equation of the circle which passes through $(1,0)$ *and* $(0,1)$ and has its

radius as small as possible is

Options :

1. ✔ $x^2+y^2-x-y=0$

2. ✖ $x^2+y^2=1$

3. ✖ $2x^2+2y^2-3x-3y+1=0$

4. ✖ $x^2+y^2-4x-4y+3=0$

Question Number : 21 Question Id : 41809918423 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The focal distance of the point (x, y) on the parabola $x^2-8x+16y=0$ is

Options :

1. ✖ $|x-5|$

2. ✖ $|y-5|$

3. ✖ $|x+5|$

4. ✔ $|y+5|$

Question Number : 22 Question Id : 41809918424 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The area of the greatest rectangle that can be inscribed in the ellipse

$\frac{x^2}{9}+\frac{y^2}{4}=1$ is

Options :

1. ✔ 12 sq. units

2. ✖ 8 sq. units

3. ✖ 15 sq. units

4. ✖ 4 sq.units

Question Number : 23 Question Id : 41809918425 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The eccentricity of the ellipse $16x^2 + 25y^2 = 400$ is

Options :

1. ✖ 2/3

2. ✔ 3/5

3. ✖ 4/3

4. ✖ 1/5

Question Number : 24 Question Id : 41809918426 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The axes of an ellipse are coordinate axes, distance between directrices is 32.

Then the equation of the ellipse , if the distance between the foci is 8 is

Options :

1. ✖ $\frac{x^2}{64}+\frac{y^2}{32}=1$

2. ✖ $\frac{x^2}{64}+\frac{y^2}{16}=1$

3. ✔ $\frac{x^2}{64}+\frac{y^2}{48}=1$

4. ✖ $\frac{x^2}{64}+\frac{y^2}{8}=1$

Question Number : 25 Question Id : 41809918427 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The length of the transverse axis of the hyperbola $4x^2-9y^2+8x+40=0$ is

Options :

1. ✖ 8

2. ✖ 6

3. ✔ 4

4. ✖ 5

Question Number : 26 Question Id : 41809918428 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $f(x)=\frac{1}{3}\left(f(x+1)+\frac{5}{f(x+2)}\right)$ and $f(x)>0$ then for all $x\in R$, then for $\lim_{x\to\infty} f(x) =$

Options :

1. ✖ 0

2. ✖ $\sqrt{\frac{2}{5}}$

3. ✔ $\sqrt{\frac{5}{2}}$

4. ✖ ∞

Question Number : 27 Question Id : 41809918429 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If α *and* β are the roots of $ax^2+bx+c=0$ then $\lim_{x\to\alpha}(1+ax^2+bx+c)^{1/(x-\alpha)}$ is

Options :

1. ✖ $a(\alpha-\beta)$

2. ✖ $\ln|a(\alpha-\beta)|$

3. ✔ $e^{a(\alpha-\beta)}$

4. ✖ $e^{|a(\alpha-\beta)|}$

Question Number : 28 Question Id : 41809918430 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The derivative of $\sin^{-1}\left(\frac{2x}{1+x^2}\right)$ with respect to $\tan^{-1}\left(\frac{2x}{1-x^2}\right)$

Options :

1. ✖ 0

2. ✔ 1

3. ✖ $\frac{1}{1-x^2}$

4. ✖ $\frac{1}{1+x^2}$

Question Number : 29 Question Id : 41809918431 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $x^y \cdot y^x = 16$ then $\frac{dy}{dx}$ at $(2,2)$ is

Options :

1. ✔ -1

2. ✖ 0

3. ✖ 1

4. ✖ -2

Question Number : 30 Question Id : 41809918432 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The area if the triangle formed by positive x – axis , and the normal and tangent to the circle $x^2 + y^2 = 4$ at $\left(1 , \sqrt{3}\right)$ is

Options :

1. ✖

$\sqrt{3}$ sq. units

2. ✔ $2\sqrt{3}$ sq. units

3. ✖ $4\sqrt{3}$ sq. units

4. ✖ $\sqrt{3}/2$ sq. units

Question Number : 31 Question Id : 41809918433 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $y = \log_{\sin x}(\tan x)$ then $\left(\frac{dy}{dx}\right)_{\pi/4} =$

Options :

1. ✖ $\frac{4}{\log 2}$

2. ✖ $-4 \log 2$

3. ✔ $\frac{-4}{\log 2}$

4. ✖ $2 \log 4$

Question Number : 32 Question Id : 41809918434 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If there is an error of 0.05 cm in the side of a cube 10 cm, then the error in its surface area is

Options :

1. ✔ $6\ cm^2$

2. ✖ $5\ cm^2$

3. ✖ $12\ cm^2$

4. ✖ $3\ cm^2$

Question Number : 33 Question Id : 41809918435 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The curves $4x^2+9y^2=72$ *and* $x^2-y^2=5$ *at* $(3,2)$

Options :

1. ✖ Touch each other

2. ✔ Cut orthogonally

3.

Intersect at 45°

4. Intersect at 60 °

Question Number : 34 Question Id : 41809918436 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $u = x^y$ then $\frac{\partial^2 u}{\partial x \partial y} =$

Options :

1. $x^{y-1}(1 + y \log x)$

2. $y^{x-1}(1 + y \log x)$

3. $y^{x-1}(1 - x \log y)$

4. $x^{y-1}(1 - y \log x)$

Question Number : 35 Question Id : 41809918437 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $u = \tan^{-1}(y/x)$ *then* $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y} =$

Options :

1. ✔ 0

2. ✖ $\sin 2u$

3. ✖ $\cos u$

4. ✖ $2\tan^{-1}u$

Question Number : 36 Question Id : 41809918438 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$If \int f(x)\cos x\ dx = \frac{1}{2}[f(x)]^2 + c \quad then\ f(x) =$$

Options :

1. ✖ x

2. ✔ $\sin x$

3. ✖ $\cos x$

4. ✖ $\tan x$

Question Number : 37 Question Id : 41809918439 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The value of $\int_0^{11} [x]^3 \, dx$, *where* $[\bullet]$ denotes the greatest integer function, is

Options :

1. ✖ 0

2. ✖ 14400

3. ✖ 2200

4. ✔ 3025

Question Number : 38 Question Id : 41809918440 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The triangle formed by tangent to the curve $f(x) = x^2 + bx - b$ at the point $(1,1)$ and the coordinate axes lies in the first quadrant. If its area is 2 sq.units then the value of b is

Options :

1. ✔ -3

2. ✖ -2

3.

-1

0

4.

Question Number : 39 Question Id : 41809918441 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $y=\int \frac{dx}{(1+x^2)^{\frac{3}{2}}}$ and $y=0$ *when* $x=0$ then the value of y when $x=1$ is

Options :

1. $\frac{1}{\sqrt{2}}$

2. $\sqrt{2}$

3. $2\sqrt{2}$

4. $3\sqrt{2}$

Question Number : 40 Question Id : 41809918442 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $\int \frac{dx}{\cos^3 x \sqrt{\sin 2x}} = a(\tan^2 x + b)\sqrt{\tan x} + c$, then

Options :

1. ✖ $a = \frac{\sqrt{2}}{5}, b = \frac{1}{\sqrt{5}}$

2. ✔ $a = \frac{\sqrt{2}}{5}, b = 5$

3. ✖ $a = \frac{\sqrt{2}}{5}, b = -\frac{1}{\sqrt{5}}$

4. ✖ $a = \frac{\sqrt{2}}{5}, b = \sqrt{5}$

Question Number : 41 Question Id : 41809918443 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The value of $\int_{-1}^{1} tan^{-1} x \, dx$ *is*

Options :

1. ✔ 0

2. ✖ $\frac{\pi}{4}$

3. ✖ $-\frac{\pi}{4}$

4. ✖ $\frac{\pi}{2}$

Question Number : 42 Question Id : 41809918444 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $S_n = \left[\frac{1}{1+\sqrt{n}} + \frac{1}{2+\sqrt{2n}} + \frac{1}{3+\sqrt{3n}} + \ldots + \frac{1}{n+\sqrt{n^2}}\right]$ then $\underset{n\to\infty}{lt} S_n =$

Options :

1. ✖ $\log\ 2$

2. ✔ $\log\ 4$

3. ✖ $\log\ 6$

4. ✖ $\log\ 8$

Question Number : 43 Question Id : 41809918445 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The volume of the solid generated by revolving the ellipse $\frac{x^2}{9}+\frac{y^2}{16}=1$ about the minor axis is_____ cubic units.

Options :

1. ✖ $128\ \pi$

2. ✖ $64\ \pi$

3. ✔ $48\ \pi$

4. ✖ $16\ \pi$

Question Number : 44 Question Id : 41809918446 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The differential equation of all parabolas whose axis are parallel to y-axis is

Options :

1. ✔ $\frac{d^3y}{dx^3}=0$

2. ✖ $\frac{d^2y}{dx^2}=C$

3. ✖ $\frac{d^3y}{dx^3}+\frac{d^2y}{dx^2}=0$

4. ✖ $\frac{d^2y}{dx^2}+2\frac{dy}{dx}=C$

Question Number : 45 Question Id : 41809918447 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Integrating factor of the differential equation $\cos x\frac{dy}{dx}+y\sin x=1$ is

Options :

1. ✖ $\cos x$

2. ✖ $\tan\ x$

3. ✔ $\sec\ x$

4. ✖ $\sin\ x$

Question Number : 46 Question Id : 41809918448 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The differential equation associated with the primitive $ax^2+by^2=1$ is

Options :

1. ✖ $x = y\frac{dy}{dx}$

2. ✖ $x + y\frac{dy}{dx} = 0$

3. ✔ $x\left(\frac{dy}{dx}\right)^2 + xy\frac{d^2y}{dx^2} = y\frac{dy}{dx}$

4. ✖ $x = y\frac{d^2y}{dx^2}$

Question Number : 47 Question Id : 41809918449 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The primitive for the differential equation $x\,dy - (y - x)dx = 0$ is

Options :

1. ✖ $\frac{x}{y} + \log|x| = C$

2. ✔ $\frac{y}{x} + \log|x| = C$

3. ✖ $\frac{x}{y}\log|x| = C$

$x^2 + y^2 = C$

4. ✖

Question Number : 48 Question Id : 41809918450 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The degree of the differential equation $y = x\frac{dy}{dx} + \sqrt{1+\left(\frac{dy}{dx}\right)^2}$

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 4

4. ✖ 3

Question Number : 49 Question Id : 41809918451 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The order of the differential equation corresponding to the primitive

$y = ae^x + be^{2x} + ce^{3x}$ where a, b and c are arbitrary constants

Options :

1. ✖

1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 50 Question Id : 41809918452 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The complimentary function of the differential equation

$$\frac{d^2y}{dx^2}+4\frac{dy}{dx}+4y=4\cos x \text{ is}$$

Options :

1. ✖ $y=c_1\cos 2x+c_2\sin 2x$

2. ✔ $y=(c_1+c_2\,x)e^{-2x}$

3. ✖ $y=c_1^{\,2}+4c_2+4c_3$

4. ✖ $y=4\cos c_1x$

Physics

Section Id :	418099369
Section Number :	2
Mandatory or Optional :	Mandatory
Number of Questions :	25
Section Marks :	25
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 51 Question Id : 41809918453 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The dimension of the ratio of angular momentum and linear momentum is

Options :

1. ✖ L^0

2. ✔ L^1

3. ✖ L^2

L^{-1}

4. ✖

Question Number : 52 Question Id : 41809918454 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

One Fermi is equivalent to

Options :

10^{-12} meter

1. ✖

10^{12} meter

2. ✖

10^{-15} meter

3. ✔

10^{15} meter

4. ✖

Question Number : 53 Question Id : 41809918455 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A cat is situated at point A (0,3,4) and a rat is situated at point B (5,3,-8).

The cat is free to move but the rat is always at rest. Find the minimum

distance travelled by cat to catch the rat

Options :

5 units

1. ✖

12 units

2. ✖

13 units

3. ✔

17 units

4. ✖

Question Number : 54 Question Id : 41809918456 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Find the values of x and y for which vectors $\vec{A} = (6\hat{i} + x\hat{j} - 2\hat{k})$ and $\vec{B} = (5\hat{i} - 6\hat{j} - y\hat{k})$ may be parallel

Options :

$x=0, y=\frac{2}{3}$

1. ✖

$x=-\frac{36}{5}, y=\frac{5}{3}$

2. ✔

$x=-\frac{15}{3}, y=\frac{23}{5}$

3. ✖

$x = \frac{36}{5}, y = \frac{15}{4}$

4. ✖

Question Number : 55 Question Id : 41809918457 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The velocity of a body moving along a straight line with uniform deceleration 'a' reduces by ¾ of its initial velocity. The total time of motion of the body is

Options :

1. ✔ $\frac{3u}{4a}$

2. ✖ $\frac{4a}{3u}$

3. ✖ 3u x 4a

4. ✖ zero

Question Number : 56 Question Id : 41809918458 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A stone thrown vertically upwards with a speed of 'u' m/s attains a height 'h_1'. Another stone thrown vertically upwards from the same point with a speed of $\frac{u}{3}$ m/s attains a height 'h_2'. Choose the correct relation

Options :

1. ✔ $h_2=\frac{h_1}{9}$

2. ✖ $h_2=\frac{h_1}{19}$

3. ✖ $h_2=\frac{h_1}{3}$

4. ✖ $h_2=3h_1$

Question Number : 57 Question Id : 41809918459 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The horizontal range of a projectile is $4\sqrt{3}$ times of its maximum height. Its angle of projection will be

Options :

1. ✔ 30^0

2. ✖ 60^0

3. ✖ 90^0

4. ✖ 45^0

Question Number : 58 Question Id : 41809918460 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The range of a projectile fired at an angle of 15° is 30m. If it is fired with the same speed at an angle of 45°, its range will be

Options :

1. ✖ 50m

2. ✖ 30m

3. ✔ 60m

4. ✖ 100m

Question Number : 59 Question Id : 41809918461 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When a body slides down an inclined plane with coefficient of friction as μ,

then its acceleration is given by

Options :

1. ✖ $g(\mu \sin\theta + \cos\theta)$

2. ✖ $g(\mu \sin\theta - \cos\theta)$

3. ✖ $g(\sin\theta + \mu \cos\theta)$

4. ✔ $g(\sin\theta - \mu \cos\theta)$

Question Number : 60 Question Id : 41809918462 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A body is in equilibrium on a rough inclined plane under its own weight. If

the angle of inclination of the inclined plane is 'α' and the angle of friction

is 'λ',then

Options :

1. ✖ $\alpha > \lambda$

2. ✖ $\alpha > \lambda/2$

3. ✔ $\alpha = \lambda$

4. ✖ $\alpha \geq \lambda$

Question Number : 61 Question Id : 41809918463 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A ball of mass 1 kg collides with a wall with speed 8 ms^{-1} and rebounds on the same line with the same speed. If mass of the wall is taken as infinite, the work done by the ball on the wall is

Options :

1. ✖ 6 J

2. ✖ 8 J

3. ✖ 9 J

4. ✔ zero

Question Number : 62 Question Id : 41809918464 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A pump motor is used to deliver water at a certain rate from a given pipe.

To obtain thrice as much water from the same pipe in the same time, power

of the motor has to be increased

Options :

1. ✖ 3 times

2. ✖ 9 times

3. ✔ 27 times

4. ✖ 81 times

Question Number : 63 Question Id : 41809918465 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The energy required to accelerate a car from rest to 10 ms^{-1} is E. What

energy will be required to accelerate the car from 10 ms^{-1} to 20 ms^{-1}?

Options :

1. ✖ E

2. ✔ 3E

3. ✖ 5E

4. ✖ 7E

Question Number : 64 Question Id : 41809918466 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The time period of a simple pendulum of infinite length is (R_e = radius of earth)

Options :

1. ✔ $T = 2\pi\sqrt{\frac{R_e}{g}}$

2. ✖ $T = 2\pi\sqrt{\frac{2R_e}{g}}$

3. ✖ $T = 2\pi\sqrt{\frac{R_e}{2g}}$

4. ✖ $T = \infty$

Question Number : 65 Question Id : 41809918467 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A particle executes SHM of amplitude 5 cm and period 3 s. The velocity of the particle at a distance 4 cm from the mean position (take $\pi = 3$) is

Options :

1. ✖ $8\ cm\ s^{-1}$

2. ✖ $12\ cm\ s^{-1}$

3. ✖ $4\ cm\ s^{-1}$

4. ✔ $6\ cm\ s^{-1}$

Question Number : 66 Question Id : 41809918468 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A particle is executing SHM with amplitude α and has maximum velocity 'v'. Its speed at displacement $\alpha/2$ will be

Options :

1. ✔ 0.866 v

2. ✖ v/2

3. ✖ v

4. ✖ v/4

Question Number : 67 Question Id : 41809918469 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A whistle of frequency 1000 Hz is sounded on a car travelling towards a cliff with velocity of 18 m s^{-1} normal to the cliff. If velocity of sound = 330 m s^{-1}, then the apparent frequency of the echo as heard by the car driver is nearly

Options :

1. ✔ 1115 Hz

2. ✖ 115 Hz

3. ✖ 67 Hz

4. ✖ 47.2 Hz

Question Number : 68 Question Id : 41809918470 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An open window is a perfect

Options :

1. ✖ Reflector of sound

2. ✔ Absorber of sound

3. ✖ Scatterer

4. ✖ Refractor

Question Number : 69 Question Id : 41809918471 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A gas is found to obey P^2V = constant. The initial temperature and volume are T_0& V_0. If the gas expands to volume $2V_0$, then the final temperature is

Options :

1. ✔ $\sqrt{2}\,T_0$

2To

2. ✖

$\frac{T_0}{2}$

3. ✖

$\frac{T_0}{\sqrt{2}}$

4. ✖

Question Number : 70 Question Id : 41809918472 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The constant in ideal gas equation is known as

Options :

Universal gas constant

1. ✔

Pressure constant

2. ✖

Temperature constant

3. ✖

Boltzmann constant

4. ✖

Question Number : 71 Question Id : 41809918473 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ratio of specific heats for a mono atomic gas is given by

Options :

1. ✖ $\frac{7}{5}$

2. ✖ $\frac{5}{2}$

3. ✔ $\frac{5}{3}$

4. ✖ $\frac{9}{5}$

Question Number : 72 Question Id : 41809918474 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Two identical samples of a gas are allowed to expand (i) isothermally (ii) adiabatically. Work done is

Options :

1. ✖ More in the adiabatic process

More in the isothermal process

2. ✔

Equal in both processes

3. ✖

No Work done in any process

4. ✖

Question Number : 73 Question Id : 41809918475 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The heat required to raise 0.5 Kg of sand from 30°C to 90 °C is given by

(Specific Heat of sand = 830 J/Kg °C)

Options :

23450J

1. ✖

54560J

2. ✖

4578J

3. ✖

24900J

4. ✔

Question Number : 74 Question Id : 41809918476 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A ray of light will undergo total internal reflection if it

Options :

1. ✔ Travels from denser medium to rarer medium & angle of incidence should be greater than critical angle

2. ✖ Travels from rarer medium to denser medium & angle of incidence should be greater than critical angle

3. ✖ Travels from denser medium to rarer medium & angle of incidence should be less than critical angle

4. ✖ Travels from rarer medium to denser medium& angle of incidence should be less than critical angle

Question Number : 75 Question Id : 41809918477 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The expulsion of a magnetic field from the interior of a superconductor , a phenomenon is known as

Options :

1. ✖ Isotopic effect

2. ✖ BCS theory

3. ✔ Meissner effect

4. ✖ London theory

Chemistry

Section Id :	418099370
Section Number :	3
Mandatory or Optional :	Mandatory
Number of Questions :	25
Section Marks :	25
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 76 Question Id : 41809918478 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many electrons in an atom may have the quantum numbers, n=4,

m= -½ ?

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 16

4. ✖ 32

Question Number : 77 Question Id : 41809918479 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Balmer series of Hydrogen atom corresponds to which spectral region?

Options :

1. ✖ X-ray region

2. ✖ Ultraviolet region

3. ✖ Infrared region

4. ✔ Visible region

Question Number : 78 Question Id : 41809918480 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The electronic configuration of the Cu atom violates which principle?

Options :

1. ✖ Hund's rule

2. ✖ Pauli Exclusion Principle

3. ✔ Aufbau Principle

4. ✖ Heisenberg's Uncertainty Principle

Question Number : 79 Question Id : 41809918481 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As compared to covalent compounds, ionic compounds generally have:

Options :

1. ✖ low melting points and low boiling points

2. ✔ high melting points and high boiling points

3. ✖ low melting points and high boiling points

4. ✖ high melting points and low boiling points

Question Number : 80 Question Id : 41809918482 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The octet rule is not valid for the molecule:

Options :

1. ✖ CO_2

2. ✖ H_2O

3. ✖ O_2

4. ✔ CO

Question Number : 81 Question Id : 41809918483 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Two solutions of a substance (non-electrolyte) are mixed in the following manner: 480 mL of 1.5 M first solution, 520 mL of 1.2 M second solution. What is the molarity of the final mixture?

Options :

1. ✖ 1.20 M

2. ✖ 1.50 M

3. ✖ 2.70 M

4. ✔ 1.344 M

Question Number : 82 Question Id : 41809918484 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The equivalent mass of H_3PO_4 in the following equation (let M be the mass of H_3PO_4):

$$H_3PO_4 + Ca(OH)_2 \rightarrow CaHPO_4 + 2H_2O$$

Options :

1. ✖ M

2. ✔ M/2

3. ✖ M/3

4. ✖ 2M

Question Number : 83 Question Id : 41809918485 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The normality of 4% (mass/volume) NaOH solution is

Options :

1. ✖ 0.1 N

2. ✔ 1.0 N

3. ✖ 0.5 N

4. ✖ 0.01 N

Question Number : 84 Question Id : 41809918486 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following cannot function as both Bronsted acid and base?

Options :

1. ✔ HCl

2. ✖ NH_3

3. ✖ HSO_4^-

HCO_3^-

4. ✖

Question Number : 85 Question Id : 41809918487 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following will make a basic buffer?

Options :

1. ✔ 100 mL of 0.1 M HCl + 200 mL of 0.1 M NH_4OH

2. ✖ 100 mL of 0.1 M HCl + 100 mL of 0.1 M NH_4OH

3. ✖ 50 mL of 0.1 M NaOH +25 mL of 0.1 M CH_3COOH

4. ✖ 100 mL of 0.1 M CH_3COOH + 100 mL of 0.1 M NaOH

Question Number : 86 Question Id : 41809918488 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Hydrogen gas is not liberated when the following metal is added to dil. HCl.

Options :

1. ✔ Mg

2.

Zn

3. Ag

4. Cu

Question Number : 87 Question Id : 41809918489 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The reduction potential of hydrogen half-cell will be negative if:

Options :

1. $p(H_2) = 1$ atm and $[H^+] = 1$ M

2. $p(H_2) = 2$ atm and $[H^+] = 2$ M

3. $p(H_2) = 1$ atm and $[H^+] = 2$ M

4. $p(H_2) = 2$ atm and $[H^+] = 1$ M

Question Number : 88 Question Id : 41809918490 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

3 faraday of electricity are passed through molten Al_2O_3, aqueous solution of $CuSO_4$ and molten NaCl taken in three different electrolytic cells. The amount of Al, Cu and Na deposited at the cathodes will be in the ratio of:

Options :

1. ✖ 1 mole : 2 mole : 3mole

2. ✖ 3 mole : 2 mole : 1 mole

3. ✖ 1.5 mole : 2 mole : 3 mole

4. ✔ 1 mole : 1.5 mole : 3 mole

Question Number : 89 Question Id : 41809918491 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the EMF of cell represented as $Zn(s) / Zn^{2+}(Aq) \| H^{+}(1M) /H_2(1atm)$ if $E^0_{Zn2+/Zn} = -0.7618$ V

Options :

1. ✔ + 0.7618 V

2. ✖ 0.0 V

3. ✖ -0.7618 V

4. ✖ +0.540 V

Question Number : 90 Question Id : 41809918492 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In Ion-exchanger, the exhausted cation exchange resin can be regenerated by washing with:

Options :

1. ✖ dil. NaOH

2. ✔ dil. HCl

3. ✖ Distilled water

4. ✖ Brakish water

Question Number : 91 Question Id : 41809918493 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is powerful disinfectant?

Options :

1. ✖ O_2

2.

✔ Cl_2

3. ✖ N_2

4. ✖ $CaOCl_2$

Question Number : 92 Question Id : 41809918494 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A sample of water contain temporary hardness of 56.8 mg/L. Express the temporary hardness in terms of e (Clark degrees)

Options :

1. ✖ 56.8 e

2. ✔ 3.976 e

3. ✖ 5.68 e

4. ✖ 811.43 e

Question Number : 93 Question Id : 41809918495 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Tinning is done by:

Options :

1. ✖ Electroplating

2. ✖ Spraying

3. ✔ Hot dipping

4. ✖ Cementation

Question Number : 94 Question Id : 41809918496 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the oxygen supply is limited during the rusting of iron, corrosion product is:

Options :

1. ✖ Fe_2O_3

2. ✖ $Fe_2O_3. xH_2O$

3. ✖ $Fe_2O_3. 2H_2O$

4. ✔ Fe_3O_4

Question Number : 95 Question Id : 41809918497 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Buna-N rubber is made from:

Options :

1. ✖ Butadiene and formaldehyde

2. ✖ Isoprene and Phenol

3. ✔ Butadiene and acrylonitrile

4. ✖ Phenol and styrene

Question Number : 96 Question Id : 41809918498 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A good example of condensation polymer is:

Options :

1. ✖ Teflon

2. ✖ Polythene

3. ✔ Bakelite

4. ✖ Polypropylene

Question Number : 97 Question Id : 41809918499 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Vulcanisation of rubber is mainly by the addition of:

Options :

1. ✖ Oxygen gas

2. ✖ Magnesium oxide

3. ✔ Sulphur

4. ✖ Zinc oxide

Question Number : 98 Question Id : 41809918500 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

During the refining of petroleum, which of the following is used to remove sulphur impurity:

Options :

1. ✔ Copper Oxide

2. ✖ Copper Sulphide

3. ✖ Magnesium chloride

4. ✖ Magnesium sulphate

Question Number : 99 Question Id : 41809918501 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the oxide of nitrogen is not a common pollutant?

Options :

1. ✔ N_2O_5

2. ✖ N_2O

3. ✖ NO

4. ✖ NO_2

Question Number : 100 Question Id : 41809918502 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

DDT is:

Options :

1. ✖ Nitrogen containing insecticide

2. ✖ Biodegradable pollutant

3. ✔ Non-Biodegradable pollutant

4. ✖ An antibiotic

Computer Science and Engineering

Section Id :	418099371
Section Number :	4
Mandatory or Optional :	Mandatory
Number of Questions :	100
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 101 Question Id : 41809918503 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assume that all the numbers are represented in 2's complement, then which of the following is divisible by 11111011?

Options :

1. ✖ 11100100

2. ✔ 11100111

3. ✖ 11010111

4. ✖ 11011011

Question Number : 102 Question Id : 41809918504 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $(73)_x = (54)_y$ in a number system then the possible values of x and y are

Options :

1. ✔ 8,11

2. ✖ 8,16

3. ✖ 10,12

9.13

4. ✖

Question Number : 103 Question Id : 41809918505 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Number of states ring counter with 5 flipflops will have?

Options :

10

1. ✖

15

2. ✖

5

3. ✔

32

4. ✖

Question Number : 104 Question Id : 41809918506 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

n-bit 2's complement number system range for integers is

Options :

-2^{n-1} to $(2^{n-1}-1)$

1. ✔

$-(2^{n-1}-1)$ to $(2^{n-1}-1)$

2. ✖

$-(2^{n-1})$ to (2^{n-1})

3. ✖

$-(2^{n-1}+1)$ to $(2^{n-1}-1)$

4. ✖

Question Number : 105 Question Id : 41809918507 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following are Universal Gates

Options :

1. ✔ NAND, NOR

X-OR, X-NOR

2. ✖

NAND, X-OR

3. ✖

AND, OR

4. ✖

Question Number : 106 Question Id : 41809918508 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Fastest Logic Family Gate is

Options :

1. ✔ ECL

CMOS

2. ✖

TTL

3. ✖

ETL

4. ✖

Question Number : 107 Question Id : 41809918509 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many 4 x 1 multiplexers are required to design 8 x 1 multiplexer?

Options :

2

1. ✔

3

2. ✖

5

3. ✖

8

4. ✖

Question Number : 108 Question Id : 41809918510 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which Flip Flop is free from race around problem

Options :

RS Flip Flop

1. ✖

SR Flip Flop

2. ✖

JK Flip Flop

3. ✖

Master Slave JK Flip Flop

4. ✔

Question Number : 109 Question Id : 41809918511 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In _____ subnet each packet is routed independently to reach the destination address.

Options :

Circuit

1. ✖

Datagram

2. ✔

Virtual Circuit

3. ✖

Static

4. ✖

Question Number : 110 Question Id : 41809918512 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____File lock is a reader lock in which several processes can acquire the lock concurrently.

Options :

1. ✔ Shared

2. ✖ Mandatory

3. ✖ Exclusive

4. ✖ Access Rights

Question Number : 111 Question Id : 41809918513 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Increasing the RAM of a Computer typically improves performance, because

Options :

1. ✖ Virtual Memory increases

2. ✔

Fewer page faults occur

Larger RAM are faster

3. ✖

Fewer Segmentation faults occur

4. ✖

Question Number : 112 Question Id : 41809918514 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Address generated by the CPU is

Options :

Physical Address

1. ✖

Logical Address

2. ✔

Absolute Address

3. ✖

4. ✖

Virtual address

Question Number : 113 Question Id : 41809918515 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A Time Sharing System has _____

Options :

More than one processor in the system

1. ✖

More than one memory in the system

2. ✖

More than one program in system

3. ✖

More than one task at a time, each task getting same amount of time to execute

4. ✔

Question Number : 114 Question Id : 41809918516 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Cache Memory works on the principle of

Options :

1. ✖ Heuristic 90:10 rule

2. ✔ Locality of Reference

3. ✖ Thrashing

4. ✖ Bhorg's Law

Question Number : 115 Question Id : 41809918517 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Von-Neuman Architecture is

Options :

1. ✔ SISD

2. ✖ SIMD

MISD

3. ✖

MIMD

4. ✖

Question Number : 116 Question Id : 41809918518 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A stack-Organized computer uses instruction of

Options :

Indirect Addressing

1. ✖

Two Addressing

2. ✖

One Addressing

3. ✖

Zero Addressing

4. ✔

Question Number : 117 Question Id : 41809918519 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following Interrupt is Non-Maskable in 8085?

Options :

1. INTR ✖

2. RST 6.5 ✖

3. RST 7.5 ✖

4. TRAP ✔

Question Number : 118 Question Id : 41809918520 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Pipelining increases _____ of the Processor

Options :

1. Storage ✖

2. Productivity ✖

Throughput

3. ✔

Latency

4. ✖

Question Number : 119 Question Id : 41809918521 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

8085 micro-processor has _____ bit ALU

Options :

4

1. ✖

8

2. ✔

16

3. ✖

32

4. ✖

Question Number : 120 Question Id : 41809918522 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not an 8086 general purpose register?

Options :

AX: Accumulator

1. ✖

BX: Base Register

2. ✖

SP: Stack Pointer

3. ✖

AS: Address Segment

4. ✔

Question Number : 121 Question Id : 41809918523 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Phase chooses the Data Structure Suitable for the application

Options :

Procedural Design

1. ✖

2. ✔

Data Design

Architectural Design

3. ✖

Module Design

4. ✖

Question Number : 122 Question Id : 41809918524 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Design Phase usually follows

Options :

Top-Down

1. ✔

Bottom-Up

2. ✖

Random

3. ✖

End-End

4. ✖

Question Number : 123 Question Id : 41809918525 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the major drawback of the Spiral Model?

Options :

1. ✖ Higher amount of risk analysis

2. ✖ Strong approval and documentation control

3. ✔ Doesn't work well for smaller projects

4. ✖ Additional functionalities are added later on

Question Number : 124 Question Id : 41809918526 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In Software Engineering, " Are we building the product right?" statement refers to

Options :

1. ✖

Validation

Verification

2. ✔

Confirmation

3. ✖

Justification

4. ✖

Question Number : 125 Question Id : 41809918527 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Software Design objective should be

Options :

Maximize module Cohesion and Minimize the module Coupling

1. ✔

Minimize module Cohesion and Maximize the module Coupling

2. ✖

Maximize module Cohesion and Maximize the module Coupling

3. ✖

Minimize module Cohesion and Minimize the module Coupling

4. ✖

Question Number : 126 Question Id : 41809918528 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In Capability Maturity Model, which one of the following is not a maturity level?

Options :

Initial

1. ✖

Measurable

2. ✔

Repeatable

3. ✖

Optimized

4. ✖

Question Number : 127 Question Id : 41809918529 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Alpha and Beta testing refers to

Options :

White Box Testing

1. ✖

Black Box Testing

2. ✖

System Testing

3. ✖

Acceptance Testing

4. ✔

Question Number : 128 Question Id : 41809918530 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Modules A and B Operate on the same input and Output then the Cohesion

is

Options :

Linear Cohesion

1. ✖

Communicational Cohesion

2. ✔

Temporal Cohesion

3. ✖

Random Cohesion

4. ✖

Question Number : 129 Question Id : 41809918531 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Regression Testing is mainly associated to

Options :

Functional Testing

1. ✔

Development Testing

2. ✖

Dataflow Testing

3. ✖

Maintenance Testing

4. ✖

Question Number : 130 Question Id : 41809918532 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Basis Path Testing is related to

Options :

System Testing

1. ✖

White Box Testing

2. ✔

Black Box Testing

3. ✖

Unit Testing

4. ✖

Question Number : 131 Question Id : 41809918533 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Evaluating expressions consisting of operands and operators is an application of _____ data structure.

Options :

Stack

1. ✔

Queue

2. ✖

Tree

3. ✖

Graph

4. ✖

Question Number : 132 Question Id : 41809918534 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Example for Non linear Data structure is _____

Options :

Stack

1. ✖

Trees

2. ✔

Queue

3. ✖

Linked List

4. ✖

Question Number : 133 Question Id : 41809918535 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The best case time complexity of quick sort is _____

Options :

1. ✖ $O(\log n)$

2. ✔ $O(n \log n)$

3. ✖ $O(n^2)$

4. ✖ $O(1)$

Question Number : 134 Question Id : 41809918536 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In _____ queue, the elements can be inserted or removed from both the ends of the queue.

Options :

1. ✔ Dequeue

2. ✖

Priority Queue

Circular Queue

3. ✖

Linear Queue

4. ✖

Question Number : 135 Question Id : 41809918537 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Implementation of Depth First search is done using _____

Options :

Circular queue

1. ✖

Linear queue

2. ✖

Stack

3. ✔

4. ✖

Double ended queue

Question Number : 136 Question Id : 41809918538 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ tree traversal technique prints the elements of binary search tree in ascending order

Options :

1. ✖ Pre order

2. ✖ Post order

3. ✖ Inverse order

4. ✔ In order

Question Number : 137 Question Id : 41809918539 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

One of the applications of Queue is _____

Options :

Evaluation post fix expression

1. ✖

Recursion

2. ✖

Post order implementation

3. ✖

Memory management

4. ✔

Question Number : 138 Question Id : 41809918540 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ sorting technique gives best performance with irrespective data distribution.

Options :

Merge sort

1. ✔

2. ✖

Quick sort

Insertion sort

3. ✖

Bubble sort

4. ✖

Question Number : 139 Question Id : 41809918541 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Polynomial manipulations are one of the application of _____ data structure

Options :

Stack

1. ✖

Tree

2. ✖

Linked list

3. ✔

Graph

4. ✖

Question Number : 140 Question Id : 41809918542 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ data structure requires multiple runs of traversals.

Options :

1. ✖ Linear

2. ✖ Array

3. ✔ Non Linear

4. ✖ Differential

Question Number : 141 Question Id : 41809918543 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ program loads the operating system and initializes all aspects of system

Options :

1. ✔ Boot strap loader

Init

2. ✖

Kernal

3. ✖

Micro kernel

4. ✖

Question Number : 142 Question Id : 41809918544 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Software may trigger an interrupt by executing a special operation called

_____

Options :

Event Handling

1. ✖

Interrupt Servicing

2. ✖

System call

3. ✔

4. ✖

Loader

Question Number : 143 Question Id : 41809918545 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is not the state of a process?

Options :

1. ✖ Running

2. ✖ Waiting

3. ✔ Killed

4. ✖ Ready

Question Number : 144 Question Id : 41809918546 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ time is the interval from the time of submission of a process to the time of completion.

Options :

1. ✔ Turn around

2. ✖ Waiting

3. ✖ Execution

4. ✖ Running

Question Number : 145 Question Id : 41809918547 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ CPU scheduling algorithm suffers from starvation.

Options :

1. ✖ FCFS

2. ✔ Priority

3. ✖

Time sharing

Round robin

4. ✖

Question Number : 146 Question Id : 41809918548 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Operations of semaphore are _____

Options :

Add and sub

1. ✖

Push and pull

2. ✖

Wait and signal

3. ✔

Hold and wait

4. ✖

Question Number : 147 Question Id : 41809918549 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of banker's algorithm is _____

Options :

Deadlock Recovery

1. ✖

Deadlock Prevention

2. ✖

Deadlock Avoidance

3. ✔

No preemption

4. ✖

Question Number : 148 Question Id : 41809918550 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the memory allocation scheme is fastest?

Options :

Best fit

1. ✖

Worst fit

2. ✖

Paging

3. ✖

First fit

4. ✔

Question Number : 149 Question Id : 41809918551 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Paging suffers from _____

Options :

External fragmentation

1. ✔

Internal fragmentation

2. ✖

Starvation

3. ✖

Beladoy's Anomaly

4. ✖

Question Number : 150 Question Id : 41809918552 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ RAID level refers to disk mirroring.

Options :

1. ✖ Level 0

2. ✔ Level 1

3. ✖ Level 2

4. ✖ Level 3

Question Number : 151 Question Id : 41809918553 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following method is invoked by garbage collector implicitly?

Options :

1. ✔ Destructor

2. ✖ Constructor

3. ✖ Finally

4. ✖ Finalize

Question Number : 152 Question Id : 41809918554 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following are not keywords in Java?

Options :

1. ✖ Int

2. ✖ Static

3. ✖ Final

4. ✔ Virtual

Question Number : 153 Question Id : 41809918555 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ keyword signifies the property that the value of the variable cannot be changed

Options :

1. ✖ Static

2. ✔ Final

3. ✖ Public

4. ✖ volatile

Question Number : 154 Question Id : 41809918556 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following does not have super class?

Options :

1. ✖ System

2. ✔ Object

3. ✖

Integer

Exception

4. ✖

Question Number : 155 Question Id : 41809918557 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ event will be notified when the scroll bar is manipulated

Options :

Action event

1. ✖

Item event

2. ✖

Window event

3. ✖

Adjustment event

4. ✔

Question Number : 156 Question Id : 41809918558 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Scanner class is available in _____ package

Options :

1. ✖ Java.io

2. ✖ Java.net

3. ✖ Java.lang

4. ✔ Java.util

Question Number : 157 Question Id : 41809918559 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ method used to initialize a thread execution

Options :

1. ✖ Resume

2. ✖ Run

Start

3. ✔

Init

4. ✖

Question Number : 158 Question Id : 41809918560 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following is not access modifiers in Java?

Options :

Protected

1. ✖

Void

2. ✔

Public

3. ✖

Private

4. ✖

Question Number : 159 Question Id : 41809918561 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ method compares the string objects in Java.

Options :

compare

1. ✖

compareTo

2. ✔

equalsTo

3. ✖

Similar

4. ✖

Question Number : 160 Question Id : 41809918562 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is serializable?

Options :

Interface

1. ✔

Class

2. ✖

3. ✖ object

4. ✖ Exception

Question Number : 161 Question Id : 41809918563 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Full form of NIC

Options :

1. ✔ Network Interface Card

2. ✖ Network Internet Card

3. ✖ Networking Internal Card

4. ✖ Network Information Card

Question Number : 162 Question Id : 41809918564 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ device is used to transmit the signal to every port except the incoming port.

Options :

1. ✖ Switch

2. ✖ Bridge

3. ✔ Hub

4. ✖ Router

Question Number : 163 Question Id : 41809918565 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ device operates on Data link layer with point-to-point communication.

Options :

1. ✔ Switch

2. ✖ Bridge

3. ✖ Hub

Router

4. ✖

Question Number : 164 Question Id : 41809918566 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A device which is used to convert analog to digital signal.

Options :

Switch

1. ✖

repeater

2. ✖

booster

3. ✖

Modem

4. ✔

Question Number : 165 Question Id : 41809918567 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ network topology makes use of token system for managing the network.

Options :

Mesh

1. ✖

Ring

2. ✔

Star

3. ✖

tree

4. ✖

Question Number : 166 Question Id : 41809918568 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ addressing allows an autonomous system made up of multiple networks to share same Internet address.

Options :

MAC

1. ✖

Subnetting

2. ✔

Full duplex

3. ✖

4. ✖

Half Duplex

Question Number : 167 Question Id : 41809918569 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Number of bits of IP address is used for subnet mask in *Class C* network.

Options :

1. ✖ 8

2. ✖ 16

3. ✔ 24

4. ✖ 32

Question Number : 168 Question Id : 41809918570 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ assigns IP address space for a network.

Options :

1. ✔ Internet Assigned Numbers Authority

Internet Address Network Authority

2. ✖

Internet Address Number Authority

3. ✖

Internet Assigned Network Authority

4. ✖

Question Number : 169 Question Id : 41809918571 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many classes of IP address are available?

Options :

2

1. ✖

3

2. ✖

4

3. ✔

5

4. ✖

Question Number : 170 Question Id : 41809918572 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the default subnet mask of class B IP address?

Options :

1. ✖ 255.0.0.0

2. ✔ 255.255.0.0

3. ✖ 255.255.255.0

4. ✖ 255.255.255.255

Question Number : 171 Question Id : 41809918573 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

RDBMS stores data in _____ format.

Options :

1. ✔ File

2. ✖ Table

Matrix

3. ✖

Tuples

4. ✖

Question Number : 172 Question Id : 41809918574 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following query list the "number of students in each district is"

Options :

SELECT COUNT(Student ID), District FROM Students GROUP BY District

1. ✖

2. ✔ SELECT COUNT(Student ID), District FROM Students ORDER BY District

SELECT Student ID, District FROM Students GROUP BY District

3. ✖

SELECT COUNT(Student ID), District FROM Students

4. ✖

Question Number : 173 Question Id : 41809918575 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Key is used to link two tables together.

Options :

1. ✔ Foreign

2. ✖ Primary

3. ✖ Secondary

4. ✖ Join

Question Number : 174 Question Id : 41809918576 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is used to organize tables in a manner that reduces redundancy.

Options :

1. ✔ Normalization

2. ✖ Join

3. ✖ delete

4. ✖ Update Normalization

Question Number : 175 Question Id : 41809918577 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ key can contain a unique and not null values in relational database.

Options :

1. ✔ Primary

2. ✖ Check

3. ✖ Unique

4. ✖ Integrity

Question Number : 176 Question Id : 41809918578 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Language changes the structure of the table through create, alter, drop operations.

Options :

1. ✖ Data Control

2. ✖ Data Manipulation

3. ✔ Data Definition

4. ✖ Data Query

Question Number : 177 Question Id : 41809918579 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is not a scalar data type in Pl/SQL.

Options :

1. ✖ VARCHAR2

2. ✖ DATE

3. ✔ RECORD

4. ✖ NUMBER

Question Number : 178 Question Id : 41809918580 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the maximum number of triggers you can apply on a single table?

Options :

1. ✖ 5

2. ✖ 8

3. ✖ 10

4. ✔ 12

Question Number : 179 Question Id : 41809918581 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ database stores data in documents.

Options :

1. ✖ PostgreSQL

2. ✖ SQL

3. ✔ NoSQL

PL/SQL

4. ✖

Question Number : 180 Question Id : 41809918582 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is used to remove a relation from an SQL.

Options :

Drop

1. ✔

Collapse

2. ✖

Delete

3. ✖

Remove

4. ✖

Question Number : 181 Question Id : 41809918583 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ concept indicates giving multiple forms to an entity.

Options :

1. ✖

Encapsulation

Abstraction

2. ✖

polymorphism

3. ✔

Inheritance

4. ✖

Question Number : 182 Question Id : 41809918584 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Acquiring the properties of one entity to another entity is called _____.

Options :

Encapsulation

1. ✖

Abstraction

2. ✖

polymorphism

3. ✖

4. ✔

Inheritance

Question Number : 183 Question Id : 41809918585 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

C++ supports _____ types of constructors.

Options :

1. ✔ 3

2. ✖ 2

3. ✖ 1

4. ✖ 4

Question Number : 184 Question Id : 41809918586 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Method initializes the objects in C++.

Options :

1. ✔

Constructor

Virtual function

2. ✖

Destructor

3. ✖

Init

4. ✖

Question Number : 185 Question Id : 41809918587 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ operators cannot be overloaded in C++.

Options :

Unary

1. ✖

Binary

2. ✖

Ternary

3. ✔

Logical

4. ✖

Question Number : 186 Question Id : 41809918588 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

To avoid the ambiguity of two copies of a same base class into one derived class via different class; we need to make the class as _____.

Options :

1. ✖ Public

2. ✖ Protected

3. ✔ Virtual

4. ✖ Private

Question Number : 187 Question Id : 41809918589 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following cannot be static member?

Options :

1. ✔ Virtual function

Protected members

2. ✖

Public Function

3. ✖

Private Function

4. ✖

Question Number : 188 Question Id : 41809918590 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Run time polymorphism can be implemented by using _____.

Options :

Virtual Base class

1. ✖

Operator overloading

2. ✖

Virtual functions

3. ✔

Inheritance

4. ✖

Question Number : 189 Question Id : 41809918591 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Standard output stream in C++ _____.

Options :

1. ✖ cin

2. ✔ cout

3. ✖ outsteam

4. ✖ Fostream

Question Number : 190 Question Id : 41809918592 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ keyword refers to invoking object.

Options :

1. ✔ this

2. ✖ super

virtual

3. ✖

Catch

4. ✖

Question Number : 191 Question Id : 41809918593 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ tag is helpful to include image in HTML.

Options :

Image

1. ✖

Img

2. ✔

Pic

3. ✖

Pix

4. ✖

Question Number : 192 Question Id : 41809918594 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

<a> tag in HTML is useful for _____

Options :

1. ✔ Linking other pages

2. ✖ Displaying Animated images

3. ✖ Inserting arrays

4. ✖ Including sounds

Question Number : 193 Question Id : 41809918595 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ tag scrolls the text in HTML page

Options :

1. ✔ Marquee

2. ✖ Scroll

3. ✖ Slider

4. ✖ Rotate

Question Number : 194 Question Id : 41809918596 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In _____, an external style sheet is placed in HTML document.

Options :

1. ✖ <html>

2. ✔ <css>

3. ✖ <style>

4. ✖ <link>

Question Number : 195 Question Id : 41809918597 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In java script, find() method of array gives _____

Options :

1. ✔ First element that passes the test

2. ✖ Index of element

3. ✖ A Character in specified position.

4. ✖ An element at given location

Question Number : 196 Question Id : 41809918598 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following jQuery method hides the selected elements?

Options :

1. ✖ The hidden(true) method

2. ✔ The hide() method

3. ✖ The visible(false) method

4. ✖ The mask() method

Question Number : 197 Question Id : 41809918599 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

PHP stands for _____

Options :

1. ✖ Perfect Hypertext Preprocessor

2. ✖ Personal HTML Page Home Processor

3. ✔ Hypertext Preprocessor

4. ✖ Processor for Hypertext Page

Question Number : 198 Question Id : 41809918600 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Operator for concatenation in PHP is _____

Options :

1. ✖ + (plus)

2. ✖ Append

3. ✔ . (dot)

Join

4. ✖

Question Number : 199 Question Id : 41809918601 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following tag is used to create an unordered list (a list with the list items in bullets) in HTML?

Options :

1. ✔

2. ✖

3. ✖

4. ✖ <i>

Question Number : 200 Question Id : 41809918602 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following function is used to get environment variables in PHP?

Options :

1. ✖

dispenv()

2. ✔ getenv()

env()

3. ✖

fetchenv()

4. ✖