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 08th May 2024 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 :	210688162
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 : 2106888207 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If each element of a row or column of a determinant is multiplied by a constant K then the value of the determinant is

Options :

1. ✖ Added by k

2. ✔ Multiplied by k

3. ✖ Subtracted by k

4. ✖ Divided by k.

Question Number : 2 Question Id : 2106888208 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $A=\begin{bmatrix}1 & 2 & 3\\ -2 & 1 & 4\end{bmatrix}$ and $B=\begin{bmatrix}2 & 3 & 1\\ 5 & 4 & 2\\ 1 & 5 & 3\end{bmatrix}$ then AB=

Options :

1. ✖ $[15 \quad 26 \quad 4]$

2. ✔ $\begin{bmatrix}15 & 26 & 14\\ 5 & 18 & 12\end{bmatrix}$

3. ✖ $\begin{bmatrix}15 & 5\\ 26 & 18\\ 14 & 12\end{bmatrix}$

4. ✖ BA

Question Number : 3 Question Id : 2106888209 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The elements on the main diagonal of a skew symmetric matrix are all

Options :

1. ✔ zeros

2. ✖ One's

3. ✖ Unequal

4. ✖ >1

Question Number : 4 Question Id : 2106888210 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If ω is one of the imaginary cube roots of unity, find the value of the determinant

$$\begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & 1 \\ \omega^2 & 1 & \omega \end{vmatrix} =$$

Options :

1. ✔ zero

2. ✖ one

3. ✖ ω^2

4. ✖ ω

Question Number : 5 Question Id : 2106888211 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Every square matrix can be written as the sum of

Options :

1. ✖ Diagonal matrix & square matrix

2. ✖ Two rectangular marices

3. ✖ Square ad non-square matrices

4. ✔ Symmetric and skew symmetric matrix

Question Number : 6 Question Id : 2106888212 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An improper fraction can be reduced to proper fraction by

Options :

1. ✖ Multiplication

2. ✔ Division

3. ✖ subtraction

4. ✖ Addition

Question Number : 7 Question Id : 2106888213 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\frac{x}{(x+2)(x-3)} =$$

Options :

1. ✖ $\frac{2}{5(x+2)} + \frac{3}{5(x-2)}$

2. ✖ $\frac{2}{5(x+2)} - \frac{3}{5(x-3)}$

3. ✔ $\frac{2}{5(x+2)} + \frac{3}{5(x-3)}$

4. ✖ $\frac{2}{5(x-3)} + \frac{3}{5(x+2)}$

Question Number : 8 Question Id : 2106888214 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 $\sin 210^0$

Options :

1. ✖ $\frac{1}{2}$

2. ✔ $-\frac{1}{2}$

3. ✖ $\frac{1}{\sqrt{2}}$

4. ✖ $-\frac{1}{\sqrt{2}}$

Question Number : 9 Question Id : 2106888215 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$\cos n\pi =$

Options :

1. ✖ -1

2. ✖ -n

3. ✔ $(-1)^n$

4. ✖ $(n)^{-1}$

Question Number : 10 Question Id : 2106888216 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$a \neq 0 \neq b, \sin x + \sin y = a, \cos x + \cos y = b$ then $\tan\frac{x+y}{2} =$

Options :

1. ✖ $\frac{b}{a}$

2. ✔ $\frac{a}{b}$

3. ✖ $\frac{a+b}{2}$

4. ✖ $\frac{a-b}{2}$

Question Number : 11 Question Id : 2106888217 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

f(x) is a periodic function of period k then the period of periodic function f(ax+b) is

Options :

1. ✖ $\frac{k}{a}$,a $\neq 0$

2. ✖ $\frac{ak}{|b|}$,b $\neq 0$

3. ✖ $\frac{k+b}{a}$,a $\neq 0$

4. ✔ $\frac{k}{|a|}$,a $\neq 0$

Question Number : 12 Question Id : 2106888218 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $7sin^2\theta + 3cos^2\theta = 4$, then $\theta =$

Options :

1. ✖ $\pm\frac{\pi}{3}$

2. ✔ $\pm\frac{\pi}{6}$

3. ✖ $\pm\frac{\pi}{4}$

4. ✖ $\pm\frac{\pi}{2}$

Question Number : 13 Question Id : 2106888219 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 $cos^{-1}x$ is

Options :

1. ✔ $[0,\pi]$

2. ✖ $[-\pi,\pi]$

3. ✖ $[0,-\pi]$

4. ✖ $(0,\pi)$

Question Number : 14 Question Id : 2106888220 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assume x>0,y>0. Then which one of the following is true ?

Options :

1. ✔ If xy<1 then $tan^{-1}x + tan^{-1}y = tan^{-1}\left(\frac{x+y}{1-xy}\right)$

2. ✖ If xy>1 then $tan^{-1}x + tan^{-1}y = tan^{-1}\left(\frac{x+y}{1-xy}\right)$

3. ✖ If xy =1 then $tan^{-1}x + tan^{-1}y = tan^{-1}\left(\frac{x+y}{1-xy}\right)$

4. ✖ If xy =1 then $tan^{-1}x - tan^{-1}y = tan^{-1}\left(\frac{x+y}{1-xy}\right)$

Question Number : 15 Question Id : 2106888221 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In ΔABC (a+b+c)(b+c-a) =3bc , then angle A =

Options :

1. ✖ 90^0

2. ✖ 120^0

3. ✔ 60^0

4. ✖ 45^0

Question Number : 16 Question Id : 2106888222 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In ΔABC, $tan\frac{A}{2} = \frac{5}{6}$, $tan\frac{C}{2} = \frac{2}{5}$ then a,b,c are in

Options :

1. ✖ Geometric progression

2. ✔ Arithmetic progression

3. ✖ Harmonic progression

4. ✖ Arithmetico – Geometric progression

Question Number : 17 Question Id : 2106888223 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In any $\Delta ABC, \tan\frac{B-C}{2} =$

Options :

1. ✖ $.b \pm c \cot\frac{A}{2}$

2. ✔ $\frac{b-c}{b+c}\cot\frac{A}{2}$

3. ✖ $(b-c)\tan\frac{A}{2}$

4. ✖ $\tan\frac{C}{2}$

Question Number : 18 Question Id : 2106888224 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Conjugate of $\frac{1-i}{1+i}$ is

Options :

1. ✖ -3i

2. ✖ -i

3. ✔ i

4. ✖ 6i

Question Number : 19 Question Id : 2106888225 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Standard form of $(-1+2i)+\left(\frac{1}{2}-i\right)$ is

Options :

1. ✖ $\frac{1}{2}-i$

2. ✔ $-\frac{1}{2}+i$

3. ✖ $-\frac{1}{2}-i$

4. ✖ $\frac{1}{2}\pm i$

Question Number : 20 Question Id : 2106888226 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the circle is $x^2+y^2+6x-8y+c=0$ has radius 6 units, Then value of c is

Options :

1. ✔ -11

2. ✖ 11

3. ✖ 25

4. ✖ 6

Question Number : 21 Question Id : 2106888227 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 parabola whose focus is (8,0) and the vertex is (0,0)is

Options :

1. ✖ $y^2 = 12x$

2. ✖ $y^2 = x$

3. ✔ $y^2 = 32x$

4. ✖ $y^2 = 16x$

Question Number : 22 Question Id : 2106888228 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 $x^2 + 2y^2 = 3$ is

Options :

1. ✖ $e=\frac{3}{\sqrt{2}}$

2. ✖ $e=\frac{1}{\sqrt{3}}$

3. ✖ $e=-\frac{1}{\sqrt{2}}$

4. ✔ $e=\frac{1}{\sqrt{2}}$

Question Number : 23 Question Id : 2106888229 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the Ellipse $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1, a>b$ the length of the latus rectum is _____

Options :

1. ✖ $\frac{2a^2}{b}$

2. ✔ $\frac{2b^2}{a}$

3. ✖ $\frac{2a^2}{b^2}$

4. ✖ 2ab

Question Number : 24 Question Id : 2106888230 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 Hyperbola with foci $(\pm 2,0)$ and eccentricity 3/2 is

Options :

1. ✖ $\frac{9x^2}{16^2}+\frac{9y^2}{10^2}=1$

2. ✔

$$\frac{x^2}{16/9} - \frac{y^2}{20/9} = 1$$

3. ✖ $\frac{x^2}{16^2} - \frac{y^2}{20^2} = 1$

4. ✖ $\frac{x^2}{2^2} - \frac{y^2}{20^2} = 1$

Question Number : 25 Question Id : 2106888231 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the coordinates at one end of a diameter of the circle $x^2 + y^2 - 8x - 4y + c = 0$ are $(-3,\ 2)$ then the coordinates at the other end are

Options :

1. ✖ $(5,\ 11)$

2. ✖ $(6,\ 2)$

3. ✖ $(2,\ 11)$

4. ✔ $(11,\ 2)$

Question Number : 26 Question Id : 2106888232 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

If a>0, then $\lim_{x\to 0}\frac{a^x-1}{x}$ =

Options :

1. ✖ $logx$

2. ✖ 1

3. ✔ $loga$

4. ✖ $\log\left(\frac{a}{x}\right)$

Question Number : 27 Question Id : 2106888233 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Differentiation of $\sin x^n$ with respect to x.

Options :

1. ✔ $nx^{n-1}cosx^n$

2. ✖ $x^{n-1}cosx^n$

3. ✖ $cosx^n$

4. ✖

$ncosx^n$

Question Number : 28 Question Id : 2106888234 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$\frac{d}{dx}(\sin^{-1}\frac{x}{a})=$

Options :

1. $\frac{1}{\sqrt{a^2-x^2}}$ ✔

2. $\frac{1}{\sqrt{a^2+x^2}}$ ✖

3. $\frac{1}{\sqrt{x^2-a^2}}$ ✖

4. $\frac{-1}{\sqrt{a^2-x^2}}$ ✖

Question Number : 29 Question Id : 2106888235 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$\frac{d}{dx}(e^{3\log x})=$

Options :

1. ✖ $3x$

2. ✖ $3\log x$

3. ✖ $\log 3$

4. ✔ $3x^2$

Question Number : 30 Question Id : 2106888236 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\frac{d}{dx}[\log|x|] =$$

Options :

1. ✖ $\frac{1}{|x|}$

2. ✔ $\frac{1}{x}$

3. ✖ $|x|$

4. ✖ x

Question Number : 31 Question Id : 2106888237 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$y = \cos x$ then $\frac{d^2y}{dx^2}$ is

Options :

1. ✖ $\cos x$

2. ✖ $\sin x$

3. ✔ $-\cos x$

4. ✖ $-\sin x$

Question Number : 32 Question Id : 2106888238 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The angle between the curves $x^2 + 4y = 0, xy = 2$ is

Options :

1. ✔ $\text{Tan}^{-1}3$

2. ✖ $\cot^{-1} 1$

3. ✖ $\text{Tan}^{-1}4$

4. ✖ $\cot^{-1} 3$

Question Number : 33 Question Id : 2106888239 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The slope of the tangent to the curve $y = \frac{x-1}{x+1}$ at $(0,1)$

Options :

1. ✖ 4

2. ✖ -2

3. ✖ 5

4. ✔ 2

Question Number : 34 Question Id : 2106888240 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $z = x^2 + y^2$ then $x\frac{\partial z}{\partial y} - y\frac{\partial z}{\partial x} =$

Options :

1. ✖ 2y-2x

2. ✖ $2x+2y$

3. ✔ 0

4. ✖ $4xy$

Question Number : 35 Question Id : 2106888241 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$z = \frac{x^3+y^3}{x+y}$, is a homogeneous function of degree _____

Options :

1. ✔ 2

2. ✖ 3

3. ✖ 0

4. ✖ 1

Question Number : 36 Question Id : 2106888242 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int (x^{2/3} + 1)dx =$$

Options :

1. ✔ $\frac{3}{5}x^{\frac{5}{3}} + x + c$

2. ✖ $\frac{5}{3}x^{\frac{5}{3}} + x + c$

3. ✖ $\frac{3}{5}x^{\frac{5}{3}} + c$

4. ✖ $\frac{3}{5}x^{\frac{3}{5}} + x + c$

Question Number : 37 Question Id : 2106888243 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int \frac{dx}{x^2-16} =$$

Options :

1. ✖ $\frac{1}{16}\log\left|\frac{x-8}{x+4}\right| + c$

2. ✖ $\frac{1}{4}\log\left|\frac{x-4}{x+4}\right| + c$

3. $\frac{1}{8}\log\left|\frac{x-4}{x+4}\right| + c$ ✔

4. $\frac{1}{16}\log\left|\frac{x-4}{x+4}\right| + c$ ✖

Question Number : 38 Question Id : 2106888244 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int \frac{\sin(\tan^{-1}x)dx}{1+x^2} =$$

Options :

1. $-\cos x + c$ ✖

2. $-\cos(\tan^{-1}x) + c$ ✔

3. $-\sin(\tan^{-1}x) + c$ ✖

4. $(\tan^{-1}x) + c$ ✖

Question Number : 39 Question Id : 2106888245 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int \cos\frac{x}{2}dx \quad =$$

Options :

1. ✖ $2\cos\frac{x}{2}+c$

2. ✔ $2\sin\frac{x}{2}+c$

3. ✖ $2\sin 2x+c$

4. ✖ $-2\sin\frac{x}{2}+c$

Question Number : 40 Question Id : 2106888246 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$$\int e^x \cos x\, dx =$$

Options :

1. ✔ $\frac{1}{2}e^x(\cos x+\sin x)+c$

2. ✖ $\frac{1}{2}e^x(\cos x-\sin x)+c$

3. ✖ $\frac{1}{2}e^x \sin x + c$

4. ✖ $\frac{1}{2}(\cos x + \sin x) + c$

Question Number : 41 Question Id : 2106888247 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 region bounded by the curve $y = f(x), x - axis$ *and the lines* $x = a$ *and* $x = b$ (b>a) is given by

Options :

1. ✖ $\int_b^a y dx$

2. ✖ $-\int_a^b y dx$

3. ✖ $\int_a^b x dy$

4. ✔ $\int_a^b y dx$

Question Number : 42 Question Id : 2106888248 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $f(x)$ is an even function, then $\int_{-a}^{a} f(x)dx =$

Options :

1. ✖ $-\int_{-a}^{a} f(x)dx$

2. ✖ $2\int_{-a}^{a} f(x)dx$

3. ✔ $2\int_{0}^{a} f(x)dx$

4. ✖ $\int_{0}^{a} f(x)dx$

Question Number : 43 Question Id : 2106888249 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Find maxima (or) minima for the curve $y = 2x^4 - x^2$

Options :

1. ✔ 'y' is minimum at $x = \pm\frac{1}{2}$

2. ✖ 'y' is maximum for $x = -\frac{1}{4}$

3. ✖ 'y' is maximum for $x = \pm\frac{1}{2}$

4. ✖ 'y'is maximum for $x = +\frac{1}{4}$

Question Number : 44 Question Id : 2106888250 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Order of the differential equation $\left[\frac{d^2y}{dx^2} + \left(\frac{dy}{dx}\right)^3\right]^{6/5} = 6y$ is

Options :

1. ✖ 3

2. ✔ 2

3. ✖ 5

4. ✖ 1

Question Number : 45 Question Id : 2106888251 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general solution of the differential equation $\frac{dy}{dx} = \frac{1+y^2}{1+x^2}$ is

Options :

1. $tan^{-1}y - tan^{-1}x = c$ ✔

2. $tan^{-1}y + tan^{-1}x = c$ ✖

3. $tan^{-1}y = c$ ✖

4. $tan^{-1}y/x = c$ ✖

Question Number : 46 Question Id : 2106888252 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 representing the family of curves y =mx where, m is arbitrary Constant is

Options :

1. $\frac{dy}{dx} - y = 0$ ✖

2. $\frac{dy}{dx} + y = 0$ ✖

3. $x\frac{dy}{dx} - y = 0$ ✔

4. ✖ xdx-ydy =y

Question Number : 47 Question Id : 2106888253 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 statement is true?

Options :

1. ✖ Order of differential equation is the order of the lowest order derivative occurring in the differential equation.

2. ✖ A function which satisfies the given differential equation is not its solution .

3. ✖ An equation involving derivatives of the dependent variable with respect to dependent variable is known as a differential equation.

4. ✔ Degree of a differential equation is defined if it is a polynomial equation in its Derivatives.

Question Number : 48 Question Id : 2106888254 Display Question Number : Yes Is Question

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

The Integrating factor of the differential equation $x\frac{dy}{dx} + 2y = x^2 (x \neq 0)$ is

Options :

1. ✖ x

2. ✖ $\log x$

3. ✖ $x\log x$

4. ✔ x^2

Question Number : 49 Question Id : 2106888255 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The linear form of $x\log x\frac{dy}{dx} + y = 2\log x$ is

Options :

1. ✖ $\frac{dy}{dx} - \frac{y}{x\log x} = \frac{1}{x}$

2. ✔ $\frac{dy}{dx} + \frac{y}{x\log x} = \frac{2}{x}$

3. ✖ $\frac{dy}{dx}+\frac{y}{x\log x}=\frac{1}{x}$

4. ✖ $\frac{dy}{dx}+\frac{y}{x\log x}=1$

Question Number : 50 Question Id : 2106888256 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The particular integral of $\frac{d^2y}{dx^2}-4y=e^{2x}$ is

Options :

1. ✖ $\frac{1}{4}e^{2x}$

2. ✖ $\frac{1}{4x}e^{2x}$

3. ✔ $\frac{1}{4}xe^{2x}$

4. ✖ 0

Physics

Section Id : 210688163

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 : 2106888257 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$N\ Kg^{-1}$ is the unit of

Options :

1. ✖ Velocity

2. ✔ Acceleration

3. ✖ Force

4. ✖ Momentum

Question Number : 52 Question Id : 2106888258 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A system has basic dimensions as density 'D', velocity 'V' and area 'A'. The dimensional representation of force in this system is

Options :

1. ✔ $A V^2 D$

2. ✖ $A V D^2$

3. ✖ $A^2 V D$

4. ✖ $A^0 V^2 D$

Question Number : 53 Question Id : 2106888259 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If The magnitude of vectors **A**, **B** and **C** are 5, 4 and 3 units respectively and **A** = **B** + **C**, then the angle between vectors **A** and **C** is

Options :

1. ✖ $Cos^{-1}(4/5)$

2. ✖ Π

3. ✔ $Cos^{-1}(3/5)$

4. ✖ $Sin^{-1}(3/4)$

Question Number : 54 Question Id : 2106888260 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the sum of two unit vectors is also a unit vector, then the magnitude of their difference is

Options :

1. ✖ 1

2. ✖ $1/2$

3. ✖ $1/\sqrt{2}$

4. ✔ $\sqrt{3}$

Question Number : 55 Question Id : 2106888261 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A particle starting from rest moves in a straight line with uniform acceleration a. The average velocity of the particle in first 's' distance is

Options :

1. ✔ $\sqrt{\frac{as}{2}}$

2. ✖ $\sqrt{\frac{3as}{2}}$

3. ✖ $\sqrt{2as}$

4. ✖ as

Question Number : 56 Question Id : 2106888262 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A projectile is thrown with speed **u** making angle θ with the horizontal at t = 0. It just crosses two points of equal height at time t = 1s and t = 3s respectively. The maximum height attained by the projectile is (take $g = 10\ ms^{-2}$)

Options :

1. ✖ 10m

2. ✔ 20m

3. ✖ 15m

4. ✖ 22m

Question Number : 57 Question Id : 2106888263 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 falling from height 'H' takes time 'T' seconds to reach the ground. The time taken to cover the first half of height is

Options :

1. ✔

$\frac{T}{\sqrt{2}}$

2. ✖ $\sqrt{2}\,T$

3. ✖ $\sqrt{3}\,T$

4. ✖ $\frac{T}{\sqrt{3}}$

Question Number : 58 Question Id : 2106888264 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A body sliding on ice with a velocity 8 ms^{-1} comes to rest after travelling 40 m. The coefficient of friction between the body and ice is ($g = 10\ ms^{-2}$)

Options :

1. ✖ 0.02

2. ✖ 0.05

3. ✔ 0.08

4. ✖ 0.2

Question Number : 59 Question Id : 2106888265 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a body placed on a rough inclined plane of gradient 1 in 4, just begins to slide, then coefficient of friction between the plane and body is

Options :

1. ✖ $\frac{2}{\sqrt{15}}$

2. ✖ $\frac{1}{\sqrt{2}}$

3. ✖ $\frac{1}{\sqrt{5}}$

4. ✔ $\frac{1}{\sqrt{15}}$

Question Number : 60 Question Id : 2106888266 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A cube of 10 N weight rests on a rough inclined plane of slope 3 in 5. If the coefficient of friction between plane and cube is 0.6, then minimum force required to start the cube moving up the plane is

Options :

1. ✖ 2N

2.

✖ 6N

3. ✔ 10.8N

4. ✖ 4.5N

Question Number : 61 Question Id : 2106888267 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A pump can take out 7200 Kg of water per hour from a 100 m deep well. If the efficiency of the pump is 50% then power of the pump is ($g = 10\ ms^{-2}$)

Options :

1. ✖ 2 KW

2. ✔ 4 KW

3. ✖ 7.2 KW

4. ✖ 3.6 KW

Question Number : 62 Question Id : 2106888268 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When a force $\mathbf{F} = \mathbf{i} + 2\mathbf{j} + 3\mathbf{k}$ acts on a body to move it from $\mathbf{r}_1 = \mathbf{i} + \mathbf{j} + \mathbf{k}$ to $\mathbf{r}_2 = \mathbf{i} - \mathbf{j} + 2\mathbf{k}$, then the work done by the force is

Options :

1. ✖ -3 J

2. ✔ -1 J

3. ✖ 2 J

4. ✖ 3 J

Question Number : 63 Question Id : 2106888269 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The K.E. of a body moving with a speed of 10 m/s is 30 J. If its speed becomes 30 m/s, then its K.E. will be

Options :

1. ✖ 10 J

2. ✖ 90 J

3. ✖ 180 J

4. ✔ 270 J

Question Number : 64 Question Id : 2106888270 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The maximum speed of a particle executing SHM is 1 m/s and maximum acceleration is 1.57 m/s^2. Its time period is

Options :

1. ✔ 4 sec

2. ✖ 1.57 sec

3. ✖ 2 sec

4. ✖ $\frac{1}{1.57}$

Question Number : 65 Question Id : 2106888271 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A girl is swinging on a swing in the sitting position. If the girl stands up, the time period of the string will

Options :

1. ✖ Increase

2. ✔

Decrease

3. ✖ Remains same

4. ✖ Becomes erratic

Question Number : 66 Question Id : 2106888272 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A light spring supports 200 gm weight at its lower end; it oscillates with a period of 1 sec. How much weight must be removed from the lower end to reduce the period to 0.5 sec?

Options :

1. ✖ 100 gm.

2. ✖ 50 gm.

3. ✔ 150 gm.

4. ✖ 200 gm.

Question Number : 67 Question Id : 2106888273 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 sound in any medium depends upon

Options :

1. ✖ Intensity and elasticity

2. ✖ Amplitude and density

3. ✔ elasticity and density

4. ✖ Amplitude and elasticity

Question Number : 68 Question Id : 2106888274 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The beat frequency produced by the vibrations of $x_1 = A \sin(320\pi t)$ and $x_2 = A \sin(326\pi t)$ is

Options :

1. ✖ 6

2. ✖ 4

3. ✖ 2

4. ✔ 3

Question Number : 69 Question Id : 2106888275 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Boyle's law is stated by PV = C, C depends on

Options :

1. ✖ Nature of gas

2. ✖ Atomic weight of gas

3. ✖ Temperature of gas

4. ✔ Quantity and temperature of gas

Question Number : 70 Question Id : 2106888276 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 state for 5g of oxygen(O_2) at pressure P and temperature T, when occupying a volume V, will be (R is universal gas constant)

Options :

1. ✖ $PV = 5RT$

2. ✖ $PV = \frac{5}{2} RT$

3. ✖

$PV = \frac{5}{16} RT$

4. ✔ $PV = \frac{5}{32} RT$

Question Number : 71 Question Id : 2106888277 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 a gas at constant pressure of 10^3 N/m^2 expands by 0.25m^3. The work done in this process is

Options :

1. ✖ 25J

2. ✖ 50J

3. ✔ 250J

4. ✖ 5J

Question Number : 72 Question Id : 2106888278 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For an adiabatic expansion of a perfect gas the value of $\frac{\Delta P}{P}$ is equal to

Options :

1. ✖

$\frac{\Delta V}{V}$

2. ✖ $\gamma \frac{\Delta V}{V}$

3. ✔ $-\gamma \frac{\Delta V}{V}$

4. ✖ $\gamma - \frac{\Delta V}{V}$

Question Number : 73 Question Id : 2106888279 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

First law of Thermodynamics is a special case of

Options :

1. ✖ Boyle's law

2. ✖ Charles law

3. ✖ Law of conservation of mass

4. ✔ Law of conservation of energy

Question Number : 74 Question Id : 2106888280 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the critical angle for total internal reflection from a medium to vacuum is 30°, the velocity of light in the medium is

Options :

1. ✖ 3×10^8 m/s

2. ✔ 1.5×10^8 m/s

3. ✖ $\sqrt{3} \times 10^8$ m/s

4. ✖ 2×10^8 m/s

Question Number : 75 Question Id : 2106888281 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Light rays of wave length 4.36×10^{-7} m incident on a metal surface of work function 1.24 eV. The stopping potential required to stop the emission of photoelectrons is

Options :

1. ✔ 1.6 eV

2. ✖ 1.24 eV

3. ✖ 3.2 eV

4. ✖ 4.8 eV

Chemistry

Section Id :	210688164
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 : 2106888282 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

According to Bohr`s theory of hydrogen atom, the angular momentum of electron in fourth orbit of H-atom is equal to

Options :

1. ✖ $\frac{h}{2\pi}$

2. ✔ $\frac{2h}{\pi}$

3. ✖ $\frac{3h}{2\pi}$

4. ✖ $\frac{4h}{\pi}$

Question Number : 77 Question Id : 2106888283 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The quantum number which describes the shape of an atomic orbital is

Options :

1. ✔ Azimuthal Quantum Number

2. ✖ Principal Quantum Number

3. ✖ Spin Quantum Number

4. ✖ Magnetic Quantum Number

Question Number : 78 Question Id : 2106888284 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the element in which the ratio of s-electrons to p-electrons is 3:5

Options :

1. ✖ P

2. ✖ Al

3. ✔ S

4. ✖ K

Question Number : 79 Question Id : 2106888285 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The pair of molecules in which the central atom has octet of electrons is

Options :

1. ✖ $BeCl_2$, BF_3

2. ✖ H_2O, $BeCl_2$

3. ✔ H_2O, NH_3

4. ✖ NH_3, BF_3

Question Number : 80 Question Id : 2106888286 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 an element M is $[Ne]3S^1$ and that of element X is $[He]2S^22P^5$. The type of bond present between M and X is

Options :

1. ✖ Covalent Bond

2. ✔ Electrovalent Bond

3. ✖ Co-ordinate Covalent Bond

4. ✖ Hydrogen Bond

Question Number : 81 Question Id : 2106888287 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The absolute weight of one molecule of water (in g) is (N_A=6x10^{23} mol^{-1})

Options :

1. ✖ 1.5×10^{-23}

2. ✔ 3.0×10^{-23}

3. ✖ 4.5×10^{-23}

4. ✖ 2.0×10^{-23}

Question Number : 82 Question Id : 2106888288 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The weight of sodium sulphate (molar mass 142 g mol^{-1}) required to prepare 500 ml of 0.03 M solution is

Options :

1. ✔ 2.13 g

2. ✖ 4.26 g

3. ✖ 1.065 g

4. ✖ 3.195 g

Question Number : 83 Question Id : 2106888289 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of H^+ ions present in 100 ml of 0.05 M H_2SO_4 solution is (N_A=6x10^{23} mol^{-1})

Options :

1. ✖ 6.0×10^{24}

2. ✖ 6.0×10^{22}

3. ✔ 6.0×10^{21}

4. ✖ 3.0×10^{23}

Question Number : 84 Question Id : 2106888290 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The conjugate acid and conjugate base of HCO_3^- are respectively

Options :

1. ✖

CO_3^{2-}, HCO_3^-

2. ✖ CO_3^{2-}, H_2CO_3

3. ✔ H_2CO_3, CO_3^{2-}

4. ✖ HCO_3^-, H_2CO_3

Question Number : 85 Question Id : 2106888291 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The pH of 0.005 M H_2SO_4 solution will be;

Options :

1. ✖ 5

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 86 Question Id : 2106888292 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In an electrochemical cell, the electrons flow from

Options :

1. ✖ Cathode to Anode

2. ✔ Anode to Cathode

3. ✖ Anode to Solution

4. ✖ Solution to Cathode

Question Number : 87 Question Id : 2106888293 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many faradays are required to reduce 1 mole of MnO_4^- ions to Mn^{2+} ions?

Options :

1. ✔ 5

2. ✖

2

3. ✖ 4

4. ✖ 3

Question Number : 88 Question Id : 2106888294 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

At 298 K, the emf of the cell, $M|M^{2+}(1M) \,||\, Cu^{2+}(1M)\,|\,Cu$ is 'x' V. If $E^0_{Cu^{2+}|Cu} = +0.34V$, then $E^0_{M^{2+}|M,}$ (in V) is

Options :

1. ✖ $(x - 0.34)$

2. ✔ $(0.34 - x)$

3. ✖ $(0.34 + x)$

4. ✖ $\frac{0.34}{x}$

Question Number : 89 Question Id : 2106888295 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the strongest reducing agent from the following:

Options :

1. ✔ $E^0_{K^+|K}$ = -2.93 v

2. ✖ $E^0_{Al^{3+}|Al}$ = -1.66 v

3. ✖ $E^0_{Zn^{2+}|Zn}$ = - 0.76 v

4. ✖ $E^0_{Ag^+|Ag}$ = +0.34 v

Question Number : 90 Question Id : 2106888296 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The formula of Zeolite can be represented as Na_2Z. The metal atom present in Z is

Options :

1. ✖ Zn

2. ✖ Ca

Mg

3. ✖

Al

4. ✔

Question Number : 91 Question Id : 2106888297 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 salts causes maximum hardness to water sample, when they are in equal amounts?

Options :

$MgSO_4$ (Molecular Weight = 120u)

1. ✖

$MgCl_2$ (Molecular Weight = 95u)

2. ✔

$CaCl_2$ (Molecular Weight = 111u)

3. ✖

$Ca(HCO_3)_2$ (Molecular Weight = 162u)

4. ✖

Question Number : 92 Question Id : 2106888298 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Permanent hardness of water cannot be removed by

Options :

1. ✔ Boiling the hard water

2. ✖ Treatment with washing soda

3. ✖ Passing through Zeolite

4. ✖ Passing through ion exchange resins

Question Number : 93 Question Id : 2106888299 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 statements is not correct about stress cells?

Options :

1. ✖ They are formed between different parts of the same metal

2. ✔ Stressed part of the metal acts as cathode

3. ✖ Stressed part of the metal acts as anode

4. ✖ Anodic part undergoes corrosion

Question Number : 94 Question Id : 2106888300 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Tarnishing of silver is due to the formation of

Options :

1. ✖ $AgCl$

2. ✖ Ag_2CO_3

3. ✖ Ag_2O

4. ✔ Ag_2S

Question Number : 95 Question Id : 2106888301 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 a natural polymer?

Options :

1. ✖ Wool

2. ✖ Cellulose

3. ✖ Strach

4. ✔ Rayon

Question Number : 96 Question Id : 2106888302 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Neoprene is an example of

Options :

1. ✔ Elastomer

2. ✖ Thermoplastic Polymer

3. ✖ Thermosetting Polymer

4. ✖ Co-Polymer

Question Number : 97 Question Id : 2106888303 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The element that is added to raw rubber vulcanization is

Options :

1. ✔ S

2. ✖ Se

3. ✖ C

4. ✖ B

Question Number : 98 Question Id : 2106888304 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The major components of water gas are

Options :

1. ✔ H_2, CO

2. ✖ H_2, CO_2

3. ✖ CO, N_2

CO_2, N_2

4. ✖

Question Number : 99 Question Id : 2106888305 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 a greenhouse gas?

Options :

1. ✖ O_3

2. ✖ CO_2

3. ✖ CH_4

4. ✔ N_2

Question Number : 100 Question Id : 2106888306 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The acid that is believed to be mainly responsible for the damage of Taj mahal is

Options :

1. ✔ H_2SO_4

2. ✖ HF

3. ✖ H_3PO_4

4. ✖ HCl

Computer Science and Engineering

Section Id :	210688165
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 : 2106888307 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The table containing present state of output , next state of the output and the inputs is called

Options :

1.

✖ Truth table

2. ✖ State table

3. ✔ Excitation table

4. ✖ Transition table

Question Number : 102 Question Id : 2106888308 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A sequential circuit with 10 states will have

Options :

1. ✖ 0 Flip-flops

2. ✖ 10 Flip-flops

3. ✔ 4 Flip-flops

4. ✖ 5 Flip-flops

Question Number : 103 Question Id : 2106888309 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A binary number can be multiplied by 2 or divided by 2 with help of

Options :

1. ✖ AND gate

2. ✖ sequential circuit

3. ✔ shift register

4. ✖ any combinational circuit

Question Number : 104 Question Id : 2106888310 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A five bit binary counter uses flip flops with propagation delay time of 10 ns each. The maximum possible time required for change of state will be

Options :

1. ✖ 10 ns

2. ✖ 0.5ns

3. ✖ 2 ns

4. ✔ 50 ns

Question Number : 105 Question Id : 2106888311 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Boolean expression (A+C) (AB'+AC) (A'C'+B') can be simplified to

Options :

1. ✔ AB'

2. ✖ AB+A'C

3. ✖ A'B+BC

4. ✖ AB+BC

Question Number : 106 Question Id : 2106888312 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The 2's compliment representation of the decimal value -15 is

Options :

1. ✖ 01111

2. ✖ 11111

3. ✖ 11110

4. ✔ 10001

Question Number : 107 Question Id : 2106888313 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let * be defined as x*y=x'+y, let z=x*y .Then the value of z*x is

Options :

1. ✖ x'+y

2. ✔ x

3. ✖ 0

4. ✖ 1

Question Number : 108 Question Id : 2106888314 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

SR latch is made by cross coupling two NAND gates. if S=R=0, then it will result in

Options :

1. ✖ Q=0, Q'=1

2. ✖ Q=1, Q'=0

3. ✔ Q=1, Q'=1

4. ✖ indeterminate state

Question Number : 109 Question Id : 2106888315 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The attributes of good software among the following

(a)Development (b) Functionality (c) Maintainability (d) Correctness

Options :

1. ✖ a, b, c only

2. ✔ b, c, d only

3. ✖ a, b, d only

4. ✖ a, c, d only

Question Number : 110 Question Id : 2106888316 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What does SDLC stands for?

Options :

1. ✖ System Design Life Cycle

2. ✖ Software Design Life Cycle

3. ✔ Software Development Life Cycle

4. ✖ System Development Life cycle

Question Number : 111 Question Id : 2106888317 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is a software development life cycle model that is chosen if the development team has less experience on similar projects.

Options :

1. ✖ Iterative Enhancement Model

2. ✖ RAD

3. ✔ Spiral

4. ✖ Waterfall

Question Number : 112 Question Id : 2106888318 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 a software process quality?

Options :

1. ✖ Visibility

2. ✖ Timeliness

3. ✖ Productivity

4. ✔ Portability

Question Number : 113 Question Id : 2106888319 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 document contains the user system requirements?

Options :

1. ✖ SRD

2. ✖ DDD

3. ✖ SDD

4. ✔ SRS

Question Number : 114 Question Id : 2106888320 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 testing is also known as white-box testing?

Options :

1. ✔ structural testing

2. ✖ Error guessing technique

3. ✖ Design based testing

4. ✖ Integration testing

Question Number : 115 Question Id : 2106888321 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Cyclomatic complexity is

Options :

1. ✔ White-box testing

2. ✖ Black box testing

3. ✖ Grey box testing

4. ✖ Unit Testing

Question Number : 116 Question Id : 2106888322 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The spiral model was originally proposed by

Options :

1. ✔ Barry Boehm

2. ✖ Pressman

3. ✖ Royce

4. ✖ Jalote

Question Number : 117 Question Id : 2106888323 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In computers, subtraction is generally carried out by

Options :

1. ✖ 9's complement

2. ✖ 10's complement

3. ✖ 1's complement

4. ✔ 2's complement

Question Number : 118 Question Id : 2106888324 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Computers use addressing mode techniques for

(a) giving programming versatility to the user by providing facilities as pointers to memory counters for loop control

(b) to reduce no. of bits in the field of instruction

(c) specifying rules for modifying or interpreting address field of the instruction

Options :

1. ✖ a only

2. ✖ a and b only

3. ✖ a and c only

4. ✔ a, b and c

Question Number : 119 Question Id : 2106888325 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Cache memory acts between

Options :

1. ✔ CPU and RAM

2. ✖ RAM and ROM

3. ✖ CPU and Hard Disk

4. ✖ RAM and Hard Disk

Question Number : 120 Question Id : 2106888326 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An n-bit microprocessor has

Options :

1. ✖ n-bit program counter

2. ✖ n-bit address register

3. ✖ n-bit ALU

4. ✔ n-bit instruction register

Question Number : 121 Question Id : 2106888327 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In 8086 the over flow flag is set when

Options :

1. ✖ The sum is more than 16 bit

2. ✔ Signed numbers go out of their range after an arithmetic operation.

3. ✖ Carry & Sign flag are set.

4. ✖ Zero flag is set.

Question Number : 122 Question Id : 2106888328 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The part of the computer system that supervises the flow of information between Auxiliary Memory and Main Memory is called

Options :

1. ✖ Processor Management System

2. ✖ Data Management System

3. ✖ Address Management System

4. ✔ Memory Management System

Question Number : 123 Question Id : 2106888329 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Memory unit accessed by content is called

Options :

1. ✖ Read only memory

2. ✖ Programmable Memory

3. ✖ Virtual Memory

4. ✔ Associative Memory

Question Number : 124 Question Id : 2106888330 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A microprocessor retrieves instructions from

Options :

1. ✖ Control memory

2. ✖ Cache memory

3. ✔ Main memory

4. ✖ Virtual memory

Question Number : 125 Question Id : 2106888331 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The addressing mode used in an instruction of the form ADD X, Y is

Options :

1. ✖ Immediate

2. ✖ indirect

3. ✔ Direct

4. ✖ Index

Question Number : 126 Question Id : 2106888332 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is used to store critical pieces of data during subroutines and interrupts ?

Options :

1. ✔ Stack

2. ✖ Queue

3. ✖ Accumulator

4. ✖ Data register

Question Number : 127 Question Id : 2106888333 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The size of each segment in 8086 is:

Options :

1. ✔ 64 KB

2. ✖ 24 KB

3. ✖ 50 KB

4. ✖ 16 KB

Question Number : 128 Question Id : 2106888334 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A block sequence consisting of a number of Memory words is transferred continuously while a DMA controller is master of Memory Bus. This is

Options :

1. ✖ Polling

2. ✖ Daisy Chaining

3. ✔ Burst transfer

4. ✖ Cycle Steal in

Question Number : 129 Question Id : 2106888335 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 derived data type in c?

Options :

1. ✖ structure

2. ✖ Pointer

3. ✔ Enumeration

4. ✖ Array

Question Number : 130 Question Id : 2106888336 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The declaration shown below refers to

```
struct list
 {
   int info;
   struct list *prev, *next;
 };
```

Options :

1. ✔ Doubly linked list

2. ✖ Circular linked list with head

3. ✖ Single linked list

4. ✖ Circular queue

Question Number : 131 Question Id : 2106888337 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The total number of elements in the array A [3][4][2] is

Options :

1. ✖ 9

2. ✔ 24

3. ✖ 12

4. ✖ 36

Question Number : 132 Question Id : 2106888338 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

To construct a unique binary search tree, which tree traversals are required ?

Options :

1. ✖ only post order

2. ✔ Postorder and Inorder

3. ✖ Preorder and Post order

4. ✖ only preorder

Question Number : 133 Question Id : 2106888339 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 infix expression for the following prefix expression?

-^AB+CD

Options :

1. ✔ (A^B)-(C+D)

2. ✖ (A^B)+(C-D)

3. ✖ (A-B)^(C+D)

4. ✖ (A+B)^(C-D)

Question Number : 134 Question Id : 2106888340 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of swappings needed to sort the numbers { 7, 20, 6, 9, 30, 18, 4, 12} into ascending order using Bubble sort is

Options :

1. ✔ 14

2. ✖ 12

3. ✖ 13

4. ✖ 11

Question Number : 135 Question Id : 2106888341 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

To implement recursive technique for Quick Sort method, which basic data structure is required?

Options :

1. ✖ Queue

2. ✖ Tree

3. ✔ Stack

4. ✖ Linked List

Question Number : 136 Question Id : 2106888342 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What will be output of following C code?

```
#include<stdio.h>
#include<string.h>
void main()
{
  int register a;
  scanf("%d",&a);
  printf("%d",a);
  getch();
}
```

Options :

1. ✖ 25

2. ✖ Address

3. ✖ 0

4. ✔ Compilation error

Question Number : 137 Question Id : 2106888343 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 sorting technique is slowest?

Options :

1. ✖ Heap sort

2. ✖ Merge sort

3. ✔ Bubble Sort

4. ✖ Shell Sort

Question Number : 138 Question Id : 2106888344 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 sorting algorithms is best if a list is already sorted?

Options :

1. ✖ Heap sort

2. ✔ Insertion sort

3. ✖ Quick sort

4. ✖ Selection sort

Question Number : 139 Question Id : 2106888345 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Error detection at data link level is achieved by

Options :

1. ✖ Bit stuffing

2. ✔ Cyclic redundancy codes

3. ✖ Manchester encoding

4. ✖ Equalization

Question Number : 140 Question Id : 2106888346 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Start and stop bits are used in serial communication for

Options :

1. ✖ Error detection

2. ✖ Error correction

3. ✔ Synchronization

4. ✖ Slowing down the communication

Question Number : 141 Question Id : 2106888347 Display Question Number : Yes Is Question

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

A method of communication in which transmission occurs in both the directions, but only one direction at a time is called

Options :

1. ✖ four wires circuit

2. ✔ half duplex

3. ✖ simplex.

4. ✖ full duplex

Question Number : 142 Question Id : 2106888348 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A device that can covert digital signals to analog signals is

Options :

1. ✖ Decoder

2. ✔ Modem

3. ✖ Encoder

4. ✖ Router

Question Number : 143 Question Id : 2106888349 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A distributed network configuration in which all data/information pass through a central computer is

Options :

1. ✖ Bus Network

2. ✔ Star Network

3. ✖ Ring Network

4. ✖ Point to Point Network

Question Number : 144 Question Id : 2106888350 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which layer of OSI reference model is responsible for creating and recognizing frame boundaries?

Options :

1. ✖ Physical Layer

2.

✔ Data link layer

3. ✖ Transport layer

4. ✖ Network Layer

Question Number : 145 Question Id : 2106888351 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 allows devices on one network to communicate with devices on another network?

Options :

1. ✖ Multiplexer

2. ✔ Gateway

3. ✖ Switch

4. ✖ modem

Question Number : 146 Question Id : 2106888352 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How is a single channel shared by multiple signals in a computer network?

Options :

1. ✔ multiplexing

2. ✖ phase modulation

3. ✖ Decoder

4. ✖ digital modulation

Question Number : 147 Question Id : 2106888353 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 devices forwards packets between networks by processing the routing information included in the packet?

Options :

1. ✖ firewall

2. ✖ bridge

3. ✖ hub

4. ✔ router

Question Number : 148 Question Id : 2106888354 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

From which layer of the OSI model, does the data link layer take packets from and encapsulate them into frames for transmission?

Options :

1. ✖ transport layer

2. ✖ application layer

3. ✔ network layer

4. ✖ physical layer

Question Number : 149 Question Id : 2106888355 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What does each packet contain in a virtual circuit network?

Options :

1. ✖ only source address

2. ✖ only destination address

3. ✖ full source and destination address

4. ✔ a short VC number

Question Number : 150 Question Id : 2106888356 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In Transport layer of TCP/IP model, which address will be used ?

Options :

1. ✔ Port addresses

2. ✖ Specific addresses

3. ✖ Logical addresses

4. ✖ Physical addresses

Question Number : 151 Question Id : 2106888357 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Information about a process is maintained in a _____.

Options :

1. ✖ Stack

2. ✖ Translation Look aside Buffer

3. ✔ Process Control Block

4. ✖ Program Control Block

Question Number : 152 Question Id : 2106888358 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 crucial time while accessing data on the disk?

Options :

1. ✔ Seek time

2. ✖ Rotational time

3. ✖ Transmission time

4. ✖ Waiting time

Question Number : 153 Question Id : 2106888359 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An optimal scheduling algorithm in terms of minimizing the average waiting time of a given set of processes is _____.

Options :

1. ✖ FCFS scheduling algorithm

2. ✖ Round robin scheduling algorithm

3. ✔ Shortest job - first scheduling algorithm

4. ✖ Priority scheduling algorithm

Question Number : 154 Question Id : 2106888360 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Virtual Memory is implemented using

Options :

1. ✖ Segmentation

2. ✖ Swapping

3. ✔ Demand Paging

4. ✖ Combining all physical memories

Question Number : 155 Question Id : 2106888361 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Inter process communication can be done through _____.

Options :

1. ✖ Mails

2. ✔ Message passing

3. ✖ System calls

4. ✖ Traps

Question Number : 156 Question Id : 2106888362 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The primary job of the operating system of a computer is to _____.

Options :

1. ✖ Command Resources

2. ✔ Manage Resources

3. ✖ Provide Utilities

4. ✖ Be user friendly

Question Number : 157 Question Id : 2106888363 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Paging _____.

Options :

1. ✔ Solves the memory fragmentation problem

2. ✖ Allows modular programming

3. ✖ Allows structured programming

4. ✖ Avoids deadlock

Question Number : 158 Question Id : 2106888364 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Mutual exclusion

Options :

1. ✔ denotes that one process is in critical reason when others are excluded

2. ✖ Prevents deadlock

3. ✖ Cannot be implemented using Semaphores

4. ✖

Is found only in the Windows NT operating system

Question Number : 159 Question Id : 2106888365 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Semaphore can be used for solving

Options :

1. ✖ Wait & signal

2. ✖ Deadlock

3. ✔ Synchronization

4. ✖ Priority

Question Number : 160 Question Id : 2106888366 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a shell ?

Options :

1. ✖ It is a hardware component

2. ✔ It is a command interpreter

3. ✖ It is a part in compiler

4. ✖ It is a tool in CPU scheduling

Question Number : 161 Question Id : 2106888367 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A page fault occurs

Options :

1. ✔ When the page is not in the memory

2. ✖ When the page is in the memory

3. ✖ When the process enters the blocked state

4. ✖ When the process is in the ready state

Question Number : 162 Question Id : 2106888368 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A process said to be in _____ state if it was waiting for an event that will never occur.

Options :

1. ✖ Safe

2. ✖ Unsafe

3. ✖ Starvation

4. ✔ Dead lock

Question Number : 163 Question Id : 2106888369 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The database environment has all of the following components except

Options :

1. ✖ Users

2. ✔ separate files

3. ✖ database

4. ✖ database administration

Question Number : 164 Question Id : 2106888370 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Normalization of database is used to

Options :

1. ✔ Eliminate redundancy

2. ✖ Improve security

3. ✖ Improve efficiency

4. ✖ Minimize errors

Question Number : 165 Question Id : 2106888371 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

E-R modelling technique is a

Options :

1. ✖ Bottom up approach

2. ✔ Top down approach

3. ✖ Left Right approach

4. ✖ Right Left approach

Question Number : 166 Question Id : 2106888372 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which SQL keyword is used to sort the result?

Options :

1. ✔ ORDER BY

2. ✖ SORT-ORDER

3. ✖ SORT

4. ✖ ORDER

Question Number : 167 Question Id : 2106888373 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which normal form is adequate for normal relational database design

Options :

1. ✖ 1NF

2. ✖ 5NF

3. ✖ 4NF

4. ✔ 3NF

Question Number : 168 Question Id : 2106888374 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 a characteristics of a relational data base model?

Options :

1. ✖ tables

2. ✔ Treelike structure

3. ✖ complex Logical relationships

4. ✖ Records

Question Number : 169 Question Id : 2106888375 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Data items grouped together for storage purposes are called a

Options :

1. ✔ record

2. ✖ title list

3. ✖ list

4. ✖ string

Question Number : 170 Question Id : 2106888376 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The entity relationship model comes under

Options :

1. ✔ object based logical model

2. ✖ record based logical model

3. ✖ physical data model

4. ✖ Grid based logical model

Question Number : 171 Question Id : 2106888377 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A command that lets you change one or more fields in a record is

Options :

1. ✖ INSERT

2. ✔ MODIFY

3. ✖ LOOK UP

4. ✖ CHANGE

Question Number : 172 Question Id : 2106888378 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A file manipulation command that extracts some of the records from a file is called

Options :

1. ✔ SELECT

2. ✖ PROJECT

3. ✖ JOIN

4. ✖ INDEX

Question Number : 173 Question Id : 2106888379 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The programming language that has the ability to create new data types is called___.

Options :

1. ✖ Overloaded

2. ✖ Encapsulated

3. ✖ Reprehensible

4. ✔ Extensible

Question Number : 174 Question Id : 2106888380 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 statements is correct about the formal parameters in C++?

Options :

1. ✖ Parameters with which functions are called

2. ✔ Parameters which are used in the definition of the function

3. ✖ Variables other than passed parameters in a function

4. ✖ Variables that are never used in the function

Question Number : 175 Question Id : 2106888381 Display Question Number : Yes Is Question

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

Inheritance in C++ have default access specifier as

Options :

1. ✔ private

2. ✖ public

3. ✖ protected

4. ✖ default

Question Number : 176 Question Id : 2106888382 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What function initializes variables in a class?

Options :

1. ✔ Constructor

2. ✖ Destructor

3. ✖ static

4. ✖ friend

Question Number : 177 Question Id : 2106888383 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 statement is correct about Virtual Inheritance?

Options :

1. ✖ It is a technique to ensure that a private member of a base class can be accessed

2. ✖ It is a technique to optimize the multiple inheritances

3. ✖ It is a technique to avoid the multiple inheritances of the classes

4. ✔ It is a C++ technique to avoid multiple copies of the base class into the derived or child classes

Question Number : 178 Question Id : 2106888384 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 true about polymorphism?

Options :

1. ✖ Helps in redefining the same functionality

2. ✔ Increases overhead of function definition always

3. ✖ It is feature of OOP

4. ✖ Ease in readability of program

Question Number : 179 Question Id : 2106888385 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The object of the class can be created in any function when a constructer is defined with this access specifier

Options :

1. ✖ Any access specifier

2. ✖ Private

3. ✔ Public

4. ✖ Protected

Question Number : 180 Question Id : 2106888386 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which feature of OOP reduces the use of nested classes?

Options :

1. ✔ Inheritance

2. ✖ Binding

3. ✖ Abstraction

4. ✖ Encapsulation

Question Number : 181 Question Id : 2106888387 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which feature of OOP is exhibited by the function overriding?

Options :

1. ✔ Polymorphism

2. ✖ Encapsulation

3. ✖ Abstraction

4. ✖ Inheritance

Question Number : 182 Question Id : 2106888388 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How to access the private member function of a class?

Options :

1. ✖ Using class address

2. ✖ Using object of class

3. ✖ Using object pointer

4. ✔ Using address of member function

Question Number : 183 Question Id : 2106888389 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 environment variable that contains a list of directories where java looks for classes referenced in a program.

Options :

1. ✖ Path class

2. ✖ Search path

3. ✖ Path dir

4. ✔ Class path

Question Number : 184 Question Id : 2106888390 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The final block is executed in java

Options :

1. ✖ Only when a checked exception is thrown

2. ✖ Only when a unchecked exception is thrown

3. ✖ Only when a exception is thrown

4. ✔ Irrespective of whether an exception is thrown or not

Question Number : 185 Question Id : 2106888391 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of bytes needed to store a number which is a data type double is

Options :

1. ✔ 8

2. ✖ 4

3. ✖ 2

4. ✖ 1

Question Number : 186 Question Id : 2106888392 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which component is used to compile, debug and execute the java programs?

Options :

1. ✖ JRE

2. ✖ JIT

3. ✔ JDK

4. ✖ JVM

Question Number : 187 Question Id : 2106888393 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is Truncation in Java?

Options :

1. ✖ Floating-point value assigned to a Floating type

2. ✔ Floating-point value assigned to an integer type

3. ✖ Integer value assigned to floating type

4. ✖ Integer value assigned to integer type

Question Number : 188 Question Id : 2106888394 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of these are selection statements in Java?

Options :

1. ✖ break

2. ✖ continue

3. ✖ for()

4. ✔ if()

Question Number : 189 Question Id : 2106888395 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of these packages contains the exception Stack Overflow in Java?

Options :

1. ✖ java.io

2. ✖ java.system

3. ✔ java.lang

4. ✖ java.util

Question Number : 190 Question Id : 2106888396 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 option leads to the portability and security of Java?

Options :

1. ✔ Bytecode is executed by JVM

2. ✖ The applet makes the Java code secure and portable

3. ✖ Use of exception handling

4. ✖ Dynamic binding between objects

Question Number : 191 Question Id : 2106888397 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 return type of the hashCode() method in the Object class?

Options :

1. ✖ Object

2. ✔ int

3. ✖ long

4. ✖ void

Question Number : 192 Question Id : 2106888398 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Evaluate the following Java expression, if x=3, y=5, and z=10: ++z + y - y + z + x++

Options :

1. ✖ 24

2. ✖ 23

3. ✖ 20

4. ✔ 25

Question Number : 193 Question Id : 2106888399 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 HTML tag?

Options :

1. ✖ < select >

2. ✖ < input >

3. ✖ < textarea >

4. ✔ < list >

Question Number : 194 Question Id : 2106888400 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What does HTML stand for?

Options :

1. ✔ Hyper Text Markup Language

2. ✖ High Text Markup Language

3. ✖ Hyper Tabular Markup Language

4. ✖ High Tabular Markup Language

Question Number : 195 Question Id : 2106888401 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 true regarding JavaScript?

Options :

1. ✖ JavaScript is a loosely typed language

2. ✔ JavaScript cannot be used to develop games

3. ✖ JavaScript is not an object-based language

4. ✖ JavaScript can not run in standalone mode

Question Number : 196 Question Id : 2106888402 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which HTML tag is used to create a hyperlink?

Options :

1. ✖ <link>

2. ✖

<href>

3. ✔ <a>

4. ✖ <hyperlink>

Question Number : 197 Question Id : 2106888403 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which method of the Component class is used to set the position and size of a component in JSP?

Options :

1. ✖ setSize()

2. ✔ setBounds()

3. ✖ setPosition()

4. ✖ setPositionSize()

Question Number : 198 Question Id : 2106888404 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 programming languages is commonly used for server-side scripting in web development?

Options :

1. ✖ HTML

2. ✖ CSS

3. ✖ JavaScript

4. ✔ PHP

Question Number : 199 Question Id : 2106888405 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 a popular front-end framework for building user interfaces in JavaScript?

Options :

1. ✖ Django

2. ✔ Angular

3. ✖ Flask

4. ✖ Node.js

Question Number : 200 Question Id : 2106888406 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 purpose of JavaScript in web development?

Options :

1. ✖ To define the structure and content of web pages

2. ✔ To add interactivity and behavior to web pages

3. ✖ To style and format web pages

4. ✖ To manage server-side data and databases