Question Paper Preview

Question Paper Name: Computer Science and Engineering
Subject Name: Computer Science and Engineering

Mathematics

Number of Questions:	50
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 1 Question Id : 6780944804 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the traces of A and B are 20 and -8 then the trace of (A+B) is ___

Options :

1. 12
2. -12
3. 28
4. -28

Question Number : 2 Question Id : 6780944805 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $A=\begin{bmatrix} x & 1 \\ 1 & 0 \end{bmatrix}$ is an involutory matrix then x=

Options :

1. 0
2. -2
3. -1
4. 2

Question Number : 3 Question Id : 6780944806 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The determinant of $\begin{bmatrix} \log e & \log e^2 & \log e^3 \\ \log e^2 & \log e^3 & \log e^4 \\ \log e^3 & \log e^4 & \log e^5 \end{bmatrix}$ is ___

Options :

1. 0
2. 1
3. $4\log e$
4. $5\log e$

Question Number : 4 Question Id : 6780944807 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $A=\begin{bmatrix} 1 & 1 & 0 \\ 2 & 1 & 3 \\ 0 & 1 & 2 \end{bmatrix}$ then $\det(adjA) =$ ___

Options :

1. $\det A$
2. $\det A^2$
3. $-\det A$
4. $(\det A)^2$

Question Number : 5 Question Id : 6780944808 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If A, B are two matrices and $AB=B$, $BA=A$ then $A^2+B^2=$

Options :

1. $A+B$
2. $A-B$
3. AB
4. 0

Question Number : 6 Question Id : 6780944809 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

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

Options :

1. 0
2. 2
3. 3
4. 5

Question Number : 7 Question Id : 6780944810 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

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

Options :

1. $-2:1$
2. $2:1$
3. $1:2$
4. $3:1$

Question Number : 8 Question Id : 6780944811 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\tan 855°=$ ____

Options :

1. 1
2. $\frac{1}{\sqrt{2}}$
3. -1
4. $-\frac{1}{\sqrt{2}}$

Question Number : 9 Question Id : 6780944812 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $\tan\alpha=\frac{m}{m+1}$ and $\tan\beta=\frac{1}{2m+1}$ then $\tan(\alpha+\beta)=$ ____

Options :

1. -1

2. 0

3. 1

4. 2

Question Number : 10 Question Id : 6780944813 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $6\sin 20° - 8\sin^3 20° =$

Options :

1. 2

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

3. $\sqrt{3}$

4. $\frac{1}{\sqrt{3}}$

Question Number : 11 Question Id : 6780944814 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $3\sin\theta + 4\cos\theta = 5$ then the value of $4\sin\theta - 3\cos\theta =$

Options :

1. 0

2. -1

3. 1

4. 2

Question Number : 12 Question Id : 6780944815 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The sine function with period 3 is

Options :

1. $sin\frac{2\pi x}{3}$

2. $sin\frac{\pi x}{3}$

3. $sin\ 3\pi x$

4. $sin\frac{3\pi x}{2}$

Question Number : 13 Question Id : 6780944816 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The maximum value of $3\sin^2 x+5\cos^2 x$ is ____

Options :

1. 8

2. 3

3. 5

4. 34

Question Number : 14 Question Id : 6780944817 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The equation $\sqrt{3}\sin x+\cos x=4$ has ____

Options :

1. Only one solution

2. two solutions

3. Infinite solutions

4. no solution

Question Number : 15 Question Id : 6780944818 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The solution of $\mathrm{Cos}^{-1}\left(\sqrt{3}x\right)+\mathrm{Cos}^{-1}x=\frac{\pi}{2}$ is ___

Options :

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

2. $\frac{1}{5}$

3. $-\frac{1}{2}$

4. $-\frac{1}{5}$

Question Number : 16 Question Id : 6780944819 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\sin\theta+\sin(\theta+120°)-\sin(120°-\theta)=$ _____

Options :

1. 0
2. $\sin\theta$
3. 1
4. $-\sin\theta$

Question Number : 17 Question Id : 6780944820 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The principal solution of $3\mathrm{Cosec}A=4\mathrm{Sin}A$ is ____

Options :

1. $\frac{\pi}{4}$
2. $\pm\frac{\pi}{3}$
3. $\pm\frac{\pi}{6}$
4. $\pm 2\pi$

Question Number : 18 Question Id : 6780944821 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $\left|z^2-1\right|=\left|z\right|^2+1.$ then z lies in ____

Options :

1. The real axis
2. a circle
3. The imaginary axis
4. a parabola

Question Number : 19 Question Id : 6780944822 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $\left(\frac{1+i}{1-i}\right)^3-\left(\frac{1-i}{1+i}\right)^3=a+ib$, then *a* an *b* are ____

Options :

1. 1,1
2. 2,-2
3. 0,-2
4. 0,-1

Question Number : 20 Question Id : 6780944823 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the line $y=2x+c$ is a tangent to $x^2+y^2=5$ then the value of *c* is ____

Options :

1. 2
2. 3
3. 4
4. 5

Question Number : 21 Question Id : 6780944824 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The vertex of the parabola $x^2+8x+12y+4=0$ is

Options :

1. $(-4,1)$
2. $(4,-1)$
3. $(-4,-1)$
4. $(4,1)$

Question Number : 22 Question Id : 6780944825 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The number of tangents to the ellipse $\frac{x^2}{4}+\frac{y^2}{2}=1$ through (2,1) is ____

Options :

1. 0

2. 1

3. 2

4. 3

Question Number : 23 Question Id : 6780944826 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of the latus rectum of the hyperbola $x^2-4y^2=4$ is ____

Options :

1. 2

2. 1

3. 4

4. 3

Question Number : 24 Question Id : 6780944827 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of the diameter of the circle $x^2+y^2-6x-8y=0$ is _____

Options :

1. 10

2. 15

3. 5

4. 20

Question Number : 25 Question Id : 6780944828 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the line $2y=5x+k$ touches the parabola $y^2=6x$ then k= ___

Options :

1. $\frac{2}{3}$

2. $\frac{4}{3}$

3. $\frac{3}{5}$

4. $\frac{6}{5}$

Question Number : 26 Question Id : 6780944829 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$$\lim_{x\to 2+} \frac{x|x-2|}{x-2} = \_\_\_\_\_$$

Options :

1. 1
2. −1
3. 2
4. −2

Question Number : 27 Question Id : 6780944830 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $f(x) = (1+x)^{\frac{2}{x}}$ is continuous at $x = 0$ then $f(0) =$ ___

Options :

1. e
2. e^2
3. e^3
4. e^4

Question Number : 28 Question Id : 6780944831 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $x = a\sec\theta, y = b\tan\theta$ then $\frac{dy}{dx} =$ ____

Options :

1. $\frac{b}{a}\sec\theta$
2. $\frac{b}{a}\text{cosec}\,\theta$
3. $\frac{a}{b}\sec\theta$
4. $\frac{a}{b}\text{cosec}\,\theta$

Question Number : 29 Question Id : 6780944832 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $x^y = e^{x-y}$ then $\frac{dy}{dx} =$ ____

Options :

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

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

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

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

Question Number : 30 Question Id : 6780944833 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $y = \sin^{-1}\left(\frac{x}{\sqrt{1+x^2}}\right)$ then $\frac{dy}{dx} =$ ____

Options :

1. $-\frac{1}{1+x^2}$

2. $\frac{1}{1+x^2}$

3. $\frac{2}{1+x^2}$

4. $-\frac{2}{1+x^2}$

Question Number : 31 Question Id : 6780944834 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The slope of the normal to the curve $x = a\sec\theta, y = a\tan\theta$ at $\theta = \frac{\pi}{6}$ is ____

Options :

1. 2
2. 0
3. $-\frac{1}{2}$
4. 1

Question Number : 32 Question Id : 6780944835 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The rate of change of area of a circle with respect to radius when r=5cm is

Options :

1. 2π sq.cm/sec
2. 10π sq.cm/sec
3. 100π sq.cm/sec
4. 20π sq.cm/sec

Question Number : 33 Question Id : 6780944836 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following function has maxima or minima?

Options :

1. e^x
2. $\log x$
3. x^3+x^2+x+1
4. $\sin x$

Question Number : 34 Question Id : 6780944837 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the increase in the side of a square is 2% then the approximate percentage increase in the area of the square is _____

Options :

1. 2
2. 4
3. 6
4. 8

Question Number : 35 Question Id : 6780944838 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

For the function $f(x) = \log(x^2 + y^2)$, which of the following is true?

Options :

1. $f_x + f_y = 0$

2. $f_{xx} + f_{yy} = 0$

3. $f_x - f_y = 0$

4. $f_{xx} - f_{yy} = 0$

Question Number : 36 Question Id : 6780944839 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$\int \text{cosec}^5\theta \cot\theta d\theta = \_\_\_\_\_$

Options :

1. $\frac{\cot^2\theta}{2}$

2. $\frac{-\text{cosec}^5\theta}{5}$

3. $\frac{\text{cosec}^6\theta}{6}$

4. $\frac{-\text{cosec}^6\theta}{6}$

Question Number : 37 Question Id : 6780944840 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$\int_2^3 \frac{dx}{x^2 - x} = \_\_\_\_$

Options :

1. $\log\frac{2}{3}$

2. $\log\frac{4}{3}$

3. $\log\frac{8}{3}$

4. $\log\frac{1}{4}$

Question Number : 38 Question Id : 6780944841 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $a<0<b$ then $\int_a^b \frac{|x|}{x}dx =$ _____

Options :

1. $b-a$

2. $a-b$

3. $a+b$

4. 0

Question Number : 39 Question Id : 6780944842 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$\int_0^1 x\tan^{-1}x dx =$ _____

Options :

1. $\frac{\pi}{4}-\frac{1}{2}$

2. $\frac{\pi}{8}-\frac{1}{2}$

3. $\frac{\pi}{4}+\frac{1}{2}$

4. $\frac{\pi}{8}+\frac{1}{2}$

Question Number : 40 Question Id : 6780944843 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$\lim_{n\to\infty}\sum_{r=1}^{n}\frac{1}{n}e^{\frac{r}{n}} =$ _____

Options :

1. e

2. $(1+e)$

3. $(1-e)$

4. $(e-1)$

Question Number : 41 Question Id : 6780944844 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$$\int_0^{\pi/4} \sec^6 x dx = \_\_\_\_\_$$

Options :

1. $\frac{8}{3}$

2. $\frac{28}{15}$

3. $-\frac{28}{15}$

4. $\frac{4}{5}$

Question Number : 42 Question Id : 6780944845 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The area bounded by the curve $y = \log x$, x-axis and the straight line $x - e = 0$ is _____square units

Options :

1. e

2. $(e-1)$

3. 0

4. $(1-e)$

Question Number : 43 Question Id : 6780944846 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The volume of the solid generated by rotating one arch of the curve $y = Sin3x$ about the x-axis is----

Options :

1. π^2

2. $\frac{\pi^2}{2}$

3. $\frac{\pi^2}{4}$

4. $\frac{\pi^2}{6}$

Question Number : 44 Question Id : 6780944847 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

$y = cx - c^2$ is the general solution of the differential equation

Options :

1. $\left(\frac{dy}{dx}\right)^2 - x\left(\frac{dy}{dx}\right) + y = 0$

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

3. $\frac{dy}{dx} = c$

4. $\left(\frac{dy}{dx}\right)^2 + x\left(\frac{dy}{dx}\right) + y = 0$

Question Number : 45 Question Id : 6780944848 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The general solution of the differential equation $\frac{dy}{dx} + \frac{y}{3} = 1$ is

Options :

1. $y = 3 + ce^{\frac{x}{3}}$

2. $y = 3 + ce^{-\frac{x}{3}}$

3. $3y = c + e^{\frac{x}{3}}$

4. $3y = c + e^{-\frac{x}{3}}$

Question Number : 46 Question Id : 6780944849 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The differential equation corresponding to the family of curves $y = ae^{bx}$, where *a* and *b* are arbitrary constants, is ____

Options :

1. $\frac{d^2y}{dx^2} = y\frac{dy}{dx}$

2. $y\frac{d^2y}{dx^2} - \frac{dy}{dx} = 0$

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

4. $\frac{dy}{dx} - y^2 = 0$

Question Number : 47 Question Id : 6780944850 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

An integrating factor of the differential equation $(x^2y + y + 1)dx + (x + x^3)dy = 0$ is __

Options :

1. e^x

2. x^2

3. $\frac{1}{x}$

4. x

Question Number : 48 Question Id : 6780944851 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The differential equation whose solution is $Ax^2 + By^2$, where A,B are arbitrary constants are of ----

Options :

1. 1^{st} order and 1^{st} degree

2. 2^{nd} order and 1^{st} degree

3. 2^{nd} order and 2^{nd} degree

4. 1^{st} order and 2^{nd} degree

Question Number : 49 Question Id : 6780944852 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The general solution of the differential equation $\frac{d^2x}{dt^2}-4\frac{dx}{dt}+5x=0$ is

Options :

1. $x=(c_1\cos t+c_2\sin t)e^{2t}$

2. $t=(c_1\cos x+c_2\sin x)e^{2x}$

3. $x=(c_1\cos 2t+c_2\sin 2t)e^{t}$

4. $t=(c_1\cos 2x+c_2\sin 2x)e^{x}$

Question Number : 50 Question Id : 6780944853 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The particular integral of $(D-2)^2y=\sin 2x$ is

Options :

1. $\frac{\cos 2x}{8}$

2. $\frac{\sin 2x}{8}$

3. $\frac{-\cos 2x}{2}$

4. $\frac{-\sin 2x}{2}$

Physics

Number of Questions:	25
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 51 Question Id : 6780944854 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The unit of impulse is the same as that of

Options :

1. moment of force

2. linear momentum

3. force

4. pressure

Question Number : 52 Question Id : 6780944855 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the force is given by $F = at+bt^2$ where t is the time. The dimensions of a and b are

Options :

1. MLT^{-4}, MLT^{-2}

2. MLT^{-3}, MLT^{-4}

3. ML^2T^{-3}, ML^2T^{-2}

4. ML^2T^{-3}, ML^3T^{-4}

Question Number : 53 Question Id : 6780944856 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Vector parallel to $6\hat{i} + 8\hat{j}$ and having a magnitude of 5 is

Options :

1. $4\hat{i} + 3\hat{j}$

2. $12\hat{i} + 16\hat{j}$

3. $16\hat{i} + 8\hat{j}$

4. $3\hat{i} + 4\hat{j}$

Question Number : 54 Question Id : 6780944857 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $|\vec{A} \times \vec{B}| = K(AB)$ then angle between $\vec{A}$ and $\vec{B}$ is

Options :

1. $\cos^{-1}K$

2. $\cos^{-1}(1/K)$

3. $\sin^{-1}K$

4. $\sin^{-1}(1/K)$

Question Number : 55 Question Id : 6780944858 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A cricket ball is thrown at a speed of 28 m/s in a direction 30^0 above the horizontal. The maximum height reached by the ball is

Options :

1. 10 m

2. 20 m

3. 30 m

4. 40 m

Question Number : 56 Question Id : 6780944859 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Two bodies are projected at angles of 45^0 and 60^0 with the horizontal with same velocity simultaneously. Ratio of their horizontal ranges is

Options :

1. $\sqrt{3}:2$

2. $2:\sqrt{3}$

3. 1:2

4. 2:1

Question Number : 57 Question Id : 6780944860 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A ball thrown by a boy is caught 2 seconds later by another at some distance away on the same level. If the angle of projection is 30^0, the velocity of projection is

Options :

1. 19.6 m/sec

2. 9.8 m/sec

3. 4.9 m/sec

4. 5.2 m/sec

Question Number : 58 Question Id : 6780944861 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A 200 m wide river flows with a velocity of 5 m/sec. A man crosses the river in the shortest time of 25 sec. If there is no flow and he swims with the same velocity, the time taken to cross the river is

Options :

1. $\frac{200}{5\sqrt{3}}$ sec

2. 20 sec

3. 25 sec

4. $25\sqrt{2}$ sec

Question Number : 59 Question Id : 6780944862 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A body of mass 1 Kg lies on an inclined plane of angle 60^0 to the horizontal. If the coefficient of friction is 0.4, the frictional force along the inclined plane is

Options :

1. 1.96 N

2. 0.98 N

3. 0.49 N

4. 0.245 N

Question Number : 60 Question Id : 6780944863 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A force of 20 Kg weight is required to just slide a wooden box weighing 50 Kg over ice. Then coefficient of static friction between the surfaces in contact is

Options :

1. 0.2

2. 0.4

3. 0.8

4. 0.1

Question Number : 61 Question Id : 6780944864 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A cyclist comes to a skidding stop in 10m. During this process, the force on the cycle due to the road is 200N and is directly opposed to the motion. The work done by the road on the cycle is

Options :

1. 1000 J

2. 2000J

3. -1000J

4. -2000J

Question Number : 62 Question Id : 6780944865 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A sphere of mass 4 Kg is dropped from a certain height. After 5s, its kinetic energy is ($g=10\ m/s^2$)

Options :

1. 5J

2. 50 J

3. 5 KJ

4. 50 KJ

Question Number : 63 Question Id : 6780944866 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

An elevator weighing 500 kg is to be lifted up at a constant velocity of 0.20 m/s. What would be the minimum power of the motor to be used?

Options :

1. 100 W

2. 500 W

3. 980 W

4. 900 W

Question Number : 64 Question Id : 6780944867 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

At t=0, the displacement of a particle in SHM is half its amplitude. Its initial phase is (referring to mean position)

Options :

1. $\frac{\pi}{6}$

2. $\frac{\pi}{3}$

3. $\frac{2\pi}{3}$

4. $\frac{\pi}{2}$

Question Number : 65 Question Id : 6780944868 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of seconds pendulum is 100 cm. To have a period half of this value, the length is to be reduced by

Options :

1. 25 cm

2. 75 cm

3. 50 cm

4. 100 cm

Question Number : 66 Question Id : 6780944869 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Inside a big hall, the reverberation time is

Options :

1. directly proportional to volume

2. inversely proportional to sound absorption

both directly proportional to volume

and

inversely proportional to sound absorption

3.

depends on temperature

4.

Question Number : 67 Question Id : 6780944870 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The voice of lion is different from that of a mosquito because

Options :

1. the sounds have different pitch

2. they are of different size

3. the two voices travel with different velocities

4. the sounds have different phases

Question Number : 68 Question Id : 6780944871 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A car is travelling at $\frac{v}{10}$ m/s and sounds horn of frequency 990 Hz. The apparent frequency heard by a police chasing the car at $\frac{v}{9}$ m/s (v is the velocity of sound) is

Options :

1. 990 Hz

2. 900 Hz

3. 100 Hz

4. 1000Hz

Question Number : 69 Question Id : 6780944872 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

When ice cube melts and becomes water, the ice-water system undergoes a change such that

Options :

1. entropy of the system decreases and internal energy decreases

2. entropy of the system decreases and internal energy increases

3. entropy of the system increases and internal energy increases

4. entropy of the system increases and internal energy decreases

Question Number : 70 Question Id : 6780944873 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A mass of 300 gm falls from a height of 3 m($g=9.8\ m/s^2$). Assuming that the whole energy is converted into heat, the amount of heat produced is

Options :

1. 2 cal

2. 2.1 cal

3. 4 cal

4. 4.2 cal

Question Number : 71 Question Id : 6780944874 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

During an adiabatic expansion of 2 moles of a gas, the change in internal energy was found to be equal to 100 J. The work done during the process will be equal to

Options :

1. zero

2. -100 J

3. 200 J

4. 100 J

Question Number : 72 Question Id : 6780944875 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The pressure and density of a diatomic gas ($\gamma = \frac{7}{5}$) change adiabatically from (P,d) to (P^1,d^1). If $\frac{d^1}{d} = 32$, then $\frac{P^1}{P}$ is

Options :

1. 128

2. 32

3. 256

4. 64

Question Number : 73 Question Id : 6780944876 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Boyle's law holds good for an ideal gas during

Options :

1. isobaric changes

2. isothermal changes

3. isochoric changes

4. isotopic changes

Question Number : 74 Question Id : 6780944877 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The threshold frequency of metal is υ_0. When a light of frequency 4 υ_0 is incident on metal then the $K.E_{max}$ of emitted electrons is

Options :

1. $2\upsilon_0 h$

2. $3\upsilon_0 h$

3. $4\upsilon_0 h$

4. $\upsilon_0 h$

Question Number : 75 Question Id : 6780944878 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Superconductors are _____ materials

Options :

1. dielectric

2. paramagnetic

3. ferromagnetic

4. diamagnetic

Number of Questions:	25
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 76 Question Id : 6780944879 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Pauli exclusion principle is concerned with

Options :

1. Energy of orbital.
2. Spin of electron.
3. Energy of electron
4. Angular momentum of electron

Question Number : 77 Question Id : 6780944880 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

According to Bohr's model of hydrogen atom, the following is quantized

Options :

1. Linear momentum
2. Linear velocity
3. Angular momentum
4. Angular velocity

Question Number : 78 Question Id : 6780944881 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

How many 'd' – orbitals have two perpendicular nodal planes

Options :

1. Two
2. Three
3. Four
4. Five

Question Number : 79 Question Id : 6780944882 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In sodium chloride crystal, each Na^+ ion is surrounded by

Options :

1. Two Cl^- ions
2. Four Cl^- ions
3. Six Cl^- ions
4. Eight Cl^- ions

Question Number : 80 Question Id : 6780944883 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following molecule contains a π – bond

Options :

1. H_2
2. O_2
3. F_2
4. HCl

Question Number : 81 Question Id : 6780944884 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following is insoluble in water?

Options :

1. Alcohol
2. Ammonia
3. Benzene
4. Acetone

Question Number : 82 Question Id : 6780944885 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The normality of 2.3 M H_2SO_4 solution is

Options :

1. 0.46N
2. 0.23 N
3. 2.3 N

4. 4.6N

Question Number : 83 Question Id : 6780944886 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

8 grams of substance of molecular weight 40 is dissolved in 250 g of water. Then the **molality** of the solution is

Options :

1. 0.4

2. 0.8

3. 0.2

4. 0.6

Question Number : 84 Question Id : 6780944887 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The pH value of 0.05M $Ba(OH)_2$ solution is

Options :

1. 10

2. 12

3. 13

4. 11

Question Number : 85 Question Id : 6780944888 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following molecule is not a Lewis Base?

Options :

1. H_2O

2. BF_3

3. NH_3

4. CO

Question Number : 86 Question Id : 6780944889 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

During the electrolysis of brine, 710 g of Cl_2 was liberated at anode. The weight of NaOH formed

Options :

1. 800 g

2. 400 g

3. 80 g

4. 40 g

Question Number : 87 Question Id : 6780944890 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In the Danniel cell, which electrode acts as anode?

Options :

1. Cu

2. Hg

3. Zn

4. Pt

Question Number : 88 Question Id : 6780944891 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The molar conductance of HCl is more than that of NaCl because

Options :

1. NaCl is more polar than KCl

2. NaCl is ionic while HCl is covalent

3. Ionic mobility of H^+ is more than that of Na^+

4. H^+ get hydrated.

Question Number : 89 Question Id : 6780944892 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The units for electrochemical equivalent are

Options :

1. grams

2. grams ampere

3. Coulomb

4. Grams per coulomb

Question Number : 90 Question Id : 6780944893 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Zeolite softening process removes

Options :

1. Only permanent hardness of water
2. Only temporary hardness of water
3. Both temporary and permanent hardness of water
4. The dissolved gases in permanent hard water.

Question Number : 91 Question Id : 6780944894 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The permanent hardness of water is caused by the presence of

Options :

1. Bicarbonates of Ca and Mg
2. Carbonates of Na and K
3. Chlorides and Sulphates of Ca and Mg.
4. Phosphates of Na and K

Question Number : 92 Question Id : 6780944895 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The secondary treatment of water uses _____ to consume wastes in water.

Options :

1. Filtration
2. Sedimentation
3. Chemicals
4. Microorganisms

Question Number : 93 Question Id : 6780944896 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Difficult to monitor and very dangerous form of corrosion is

Options :

1. Galvanic
2. Pitting

3. Crevice

4. Stress

Question Number : 94 Question Id : 6780944897 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

When Pt and Co are electrically connected, which one gets corroded?

Options :

1. Co

2. Pt

3. None

4. both

Question Number : 95 Question Id : 6780944898 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What rubber was invented when Dr. Joseph C. Patrick tried to make antifreeze?

Options :

1. Methyl rubber

2. Chloroprene

3. Bruna N

4. Thiokol

Question Number : 96 Question Id : 6780944899 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The first plastic ever synthesized was called _____.

Options :

1. Bakelite

2. Nylon

3. Dacron

4. Cellulose

Question Number : 97 Question Id : 6780944900 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ is a brand of polyester textile fiber that is wrinkle resistant and strong

Options :

1. Cellulose
2. Dacron
3. Bakelite
4. Nylon

Question Number : 98 Question Id : 6780944901 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Water gas is a mixture of

Options :

1. $H_2 + CO$
2. $N_2 + CO$
3. $H_2 + CO_2$
4. $H_2 + CH_4$

Question Number : 99 Question Id : 6780944902 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a greenhouse gas?

Options :

1. CO
2. CO_2
3. water vapour
4. CH_4

Question Number : 100 Question Id : 6780944903 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Burning of fossil fuels causes

Options :

1. Global warming
2. Ozone depletion
3. Acid rain
4. Eutrophication

Number of Questions:	100
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 101 Question Id : 6780944904 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following logic families uses bipolar transistors?

Options :

1. TTL
2. NMOS
3. CMOS
4. ECL

Question Number : 102 Question Id : 6780944905 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The functional difference between SR flip flop and JK flip flop is that

Options :

1. JK flip flop is faster than SR flip flop
2. JK flip flop accepts both inputs
3. JK flip flop has a feedback path
4. JK flip flop does not require external choice

Question Number : 103 Question Id : 6780944906 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following flip flop is free from race around condition?

Options :

1. SR flip flop
2. D flip flop
3. T flip flop
4. Master-Slave flip flop

Question Number : 104 Question Id : 6780944907 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

How many control lines are required for 16 to 1 multiplexer?

Options :

1. 2
2. 4
3. 6
4. 8

Question Number : 105 Question Id : 6780944908 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The octal equivalent value of hexadecimal value AB is

Options :

1. 253
2. 242
3. 221
4. 143

Question Number : 106 Question Id : 6780944909 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A Boolean function may be transformed into

Options :

1. logical diagram
2. logical graph
3. map
4. matrix

Question Number : 107 Question Id : 6780944910 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Full adder performs addition on

Options :

1. 2 bits
2. 3 bits
3. 4 bits
4. 5 bits

Question Number : 108 Question Id : 6780944911 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Boolean function A + BC is reduced representation of _____

Options :

1. AB + BC
2. (A+B)(A+C)
3. A'B+AB'C
4. (A+C)B

Question Number : 109 Question Id : 6780944912 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The instruction, MOV BX, 0008H belongs to the address mode

Options :

1. Register
2. Direct
3. Immediate
4. Register relative

Question Number : 110 Question Id : 6780944913 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The intel 8086 microprocessor is a _____ processor

Options :

1. 8 bit
2. 16 bit
3. 32 bit
4. 4 bit

Question Number : 111 Question Id : 6780944914 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a data transfer/copy instruction?

Options :

1. PUSH
2. MOV
3. POP
4. DAS

Question Number : 112 Question Id : 6780944915 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The 80286 is able to address the physical memory of

Options :

1. 8 MB
2. 16 MB
3. 24 MB
4. 64 MB

Question Number : 113 Question Id : 6780944916 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The registers that contain the status information is

Options :

1. control registers
2. instruction registers
3. program status word
4. program counter

Question Number : 114 Question Id : 6780944917 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The result of MOV AL, 65 is to store

Options :

1. store 0100 0010 in AL
2. store 42H in AL
3. store 40H in AL
4. store 0100 0001 in AL

Question Number : 115 Question Id : 6780944918 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The address bits are sent out on lines through _____

Options :

1. A16-19
2. A10-17
3. D10-D17
4. B10-C17

Question Number : 116 Question Id : 6780944919 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The 8086 fetches instruction one after another from _____ of memory

Options :

1. Code segment
2. IP
3. ES
4. SS

Question Number : 117 Question Id : 6780944920 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The accumulator is 16 bit wide and is called:

Options :

1. AX
2. AH
3. AL
4. DL

Question Number : 118 Question Id : 6780944921 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Operating frequency of 80386 microprocessor is _____

Options :

1. 14 MHz and 20 MHz
2. 20 MHz and 33 MHz
3. 35 MHz and 45 MHz
4. 56 MHz and 76 MHz

Question Number : 119 Question Id : 6780944922 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Reference that are available in the cache are called_____:

Options :

1. Cache hits
2. Cache line
3. Cache memory

4. Cache miss

Question Number : 120 Question Id : 6780944923 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The position of cache memory exists between

Options :

1. Main memory and secondary memory

2. CPU and Main memory

3. RAM and ROM

4. Inside the processor

Question Number : 121 Question Id : 6780944924 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following types of instructions will affect the stack pointer?

I. Call subroutine

II. Return

III. Conditional branch

Options :

1. I & II

2. II & III

3. I & III

4. I, II & III

Question Number : 122 Question Id : 6780944925 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Hard disc is an example of ____ memory of the digital computer

Options :

1. Primary memory

2. Secondary memory

3. Main memory

4. Random Access memory

Question Number : 123 Question Id : 6780944926 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The 2's complement representation of the decimal number 7 is

Options :

1. 1010
2. 1001
3. 1100
4. 1110

Question Number : 124 Question Id : 6780944927 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The decimal value 0.25 is equivalent to

Options :

1. Binary 0.1
2. Binary 0.01
3. Binary 0.001
4. Binary 0.0001

Question Number : 125 Question Id : 6780944928 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The floating point representation is used to store

Options :

1. Boolean values
2. Whole numbers
3. Real integers
4. Rational number

Question Number : 126 Question Id : 6780944929 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following will not be there in a memory mapped I/O System?

Options :

1. LDA
2. IN
3. ADD
4. SUB

Question Number : 127 Question Id : 6780944930 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In Computers the subtraction can be carried out by

Options :

1. 10's Complement

2. 9's Complement

3. 2's Complement

4. 1's Complement

Question Number : 128 Question Id : 6780944931 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A memory buffer used to accommodate a speed differential is called

Options :

1. Cache

2. Register

3. Accumulator

4. RAM

Question Number : 129 Question Id : 6780944932 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which bitwise operator is suitable for turning on a particular bit in a number?

Options :

1. && operator

2. & operator

3. | operator

4. || operator

Question Number : 130 Question Id : 6780944933 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In C, if you pass an array as an argument to a function, what actually gets passed?

Options :

1. Value of elements in array

2. Base address of the array

3. First element of the array

4. Last element of the array

Question Number : 131 Question Id : 6780944934 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A queue is a _____

Options :

1. FIFO

2. LIFO

3. FILO

4. LOFI

Question Number : 132 Question Id : 6780944935 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The retrieval of items in a stack is _____ operation.

Options :

1. push

2. pop

3. retrieval

4. access

Question Number : 133 Question Id : 6780944936 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not an application of stack?

Options :

1. finding factorial

2. tower of Hanoi

3. infix to postfix

4. Solving all the logarithmic functions

Question Number : 134 Question Id : 6780944937 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The initial configuration of the queue is a,b,c,d (a is the front end). To get the configuration d,c,b,a one needs a minimum of ?

Options :

1. 2 deletions and 3 additions

2. 3 additions and 2 deletions

3. 3 deletions and 3 additions

4. 3 deletions and 4 additions

Question Number : 135 Question Id : 6780944938 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following data structure cannot store the non-homogeneous data element?

Options :

1. files

2. records

3. Pointers

4. Array

Question Number : 136 Question Id : 6780944939 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a nonlinear data structure?

Options :

1. Graph

2. Tree

3. Map

4. Stack

Question Number : 137 Question Id : 6780944940 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following does not keep track of the address of every element in the list?

Options :

1. Linear Array

2. Stack

3. Queue

4. Linked list

Question Number : 138 Question Id : 6780944941 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The logical or mathematical model of a particular organization of data is called a_____

Options :

1. Data Structure
2. Data arrangement
3. Data configuration
4. Data formation

Question Number : 139 Question Id : 6780944942 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

PING stands for

Options :

1. Packet interval gateway
2. Packet internet gateway
3. peer interval gateway
4. packet internet groper

Question Number : 140 Question Id : 6780944943 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is the process of managing data transfer between components with in the network?

Options :

1. Data control
2. Flow control
3. Hop count
4. Error control

Question Number : 141 Question Id : 6780944944 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following layer is not present in TCP/IP?

Options :

1. Internet layer

2. Network layer

3. Transport layer

4. Physical Layer

Question Number : 142 Question Id : 6780944945 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Number of network ID in class A networks are

Options :

1. 116

2. 126

3. 156

4. 176

Question Number : 143 Question Id : 6780944946 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The IP4 172.16.255.10 belongs to

Options :

1. Class A network

2. Class B network

3. Class C network

4. Class D network

Question Number : 144 Question Id : 6780944947 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Checksum field takes care of only

Options :

1. Connection Oriented

2. Connection less

3. Framing

4. Acknowledgement

Question Number : 145 Question Id : 6780944948 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not the application of TCP?

Options :

1. WWW
2. E-mail
3. FTP
4. DNS

Question Number : 146 Question Id : 6780944949 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

TCP is

Options :

1. Connection oriented
2. Connection less
3. Not use check sum
4. Not reliable in delivering the messages

Question Number : 147 Question Id : 6780944950 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of the internet protocol is

Options :

1. 8 bits
2. 16 bits
3. 32 bits
4. 64 bits

Question Number : 148 Question Id : 6780944951 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

IEEE 802.3 is

Options :

1. Token bus
2. Token Ring
3. Ethernet

4. Hub

Question Number : 149 Question Id : 6780944952 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is the fast memory?

Options :

1. ROM

2. PROM

3. DRAM

4. SRAM

Question Number : 150 Question Id : 6780944953 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a service of operating system?

Options :

1. User interface

2. I/O operations

3. Communications

4. Provides drivers of application software

Question Number : 151 Question Id : 6780944954 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following state is initiated by the process itself?

Options :

1. Running

2. Ready

3. Suspend

4. Block

Question Number : 152 Question Id : 6780944955 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A process which has just terminated but has yet to relinquish its resources is called

Options :

1. Running process

2. Suspended process

3. Zombie Process

4. Blocked Process

Question Number : 153 Question Id : 6780944956 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

System calls are usually invoked by using

Options :

1. Software interrupts

2. Polling

3. Privileged Interrupts

4. Test Editor

Question Number : 154 Question Id : 6780944957 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

At a particular time of computation, the value of a counting semaphore is 5. After 10P operations were completed on this semaphore followed by 15V operations, the resulting value of the semaphore is

Options :

1. 10

2. 15

3. 20

4. 25

Question Number : 155 Question Id : 6780944958 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

An operating system contains 5 user processes each requiring 3 units of resource 'R'. The minimum number of units of R such that no dead lock will occur

Options :

1. 5

2. 7

3. 9

4. 11

Question Number : 156 Question Id : 6780944959 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A system supports 8K pages of 512 bytes each in the virtual address space. Main memory contains 1K frames. The number of bits of logical and physical address is

Options :

1. 19, 22

2. 22, 19

3. 19, 19

4. 22, 22

Question Number : 157 Question Id : 6780944960 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Because of a single job could not keep both the CPU and the I/O devices busy which of the following technique is introduced

Options :

1. Scheduling

2. Multithreading

3. Spooling

4. Multiprogramming

Question Number : 158 Question Id : 6780944961 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is the visible portion of operating system?

Options :

1. Deadlock Handler

2. Process Scheduler

3. File System

4. Memory management

Question Number : 159 Question Id : 6780944962 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following disc scheduling algorithm may suffer from Beledy's Anomaly problem?

Options :

1. FIFO
2. LRU
3. MFU
4. LFU

Question Number : 160 Question Id : 6780944963 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following approach may be invoked periodically to test for the deadlock?

Options :

1. Deadlock Avoidance
2. Deadlock Prevention
3. Deadlock Detection
4. Deadlock Ignorance

Question Number : 161 Question Id : 6780944964 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The primary job of Operating System is

Options :

1. Manage Commands
2. Manage Users
3. Manage Programs
4. Manage Resources

Question Number : 162 Question Id : 6780944965 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following can be chosen as primary key of the relation in database Design

Options :

1. Name of the Person

2. Age

3. Aadhar Card Number

4. Address

Question Number : 163 Question Id : 6780944966 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ supports efficient retrieval of records based on the value of a search key

Options :

1. Trigger

2. Cursor

3. Index

4. Package

Question Number : 164 Question Id : 6780944967 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following operation(s) can be done with ALTER command

I.Insert new rows into the table

II. Delete records from table

III. Insert new column into the table

IV. Modify or drop the columns from table

Options :

1. I, II & III

2. II & III

3. III & IV

4. I, II, III & IV

Question Number : 165 Question Id : 6780944968 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A relation R = (A, B, C, D, E, F) holds the following functional dependencies

A → BC, A → E, B → CD, C → F

Which attribute can be chosen as primary key for the relation?

Options :

1. EF
2. C
3. A
4. BC

Question Number : 166 Question Id : 6780944969 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The SQL statement select ROUND(67.987, -2) from dual;

Options :

1. It is Illegal
2. prints 68
3. prints 0
4. prints 60

Question Number : 167 Question Id : 6780944970 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In ordered indices if the file containing the records is sequentially ordered, then _____ is an index, whose search key also defines the sequential order of the file.

Options :

1. Clustered index
2. Structured index
3. Unstructured index
4. Non-clustered index

Question Number : 168 Question Id : 6780944971 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What operator tests column for the absence of data?

Options :

1. EXISTS operator
2. NOT operator
3. IS NULL operator
4. None of these

Question Number : 169 Question Id : 6780944972 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A_____ is a database object that groups logically related PL/SQL types, objects and subprograms.

Options :

1. Module
2. Package
3. Object
4. Class

Question Number : 170 Question Id : 6780944973 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ provide a way for your program to select multiple rows of data from the database and then process each row individually.

Options :

1. PL/SQL Cursors
2. PL/SQL Trigger
3. PL/SQL Select
4. PL/SQL Process

Question Number : 171 Question Id : 6780944974 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A relation is said to be in 3 NF if and only if

I. It is already in 2NF

II. Transitive dependency should be removed

III. Only partial functional dependency has to be removed

IV. Multi-value dependency has to be removed

V. It should already in BCNF

Options :

1. I & III only
2. II, III & V
3. I, IV & V
4. I & II only

Question Number : 172 Question Id : 6780944975 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If a class contains pure virtual function, then it is termed as_____

Options :

1. Virtual class
2. Sealed class
3. Pure Local class
4. Abstract Class

Question Number : 173 Question Id : 6780944976 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the statements are true?

I. Function overloading is done at compile time.

II. Protected members are accessible to the member of derived class.

III. A derived class inherits constructors and destructors.

IV. A friend function can be called like a normal function.

V. Nested class is a derived class.

Options :

1. I, II, III
2. II, III, V
3. III, IV, V
4. I, II, IV

Question Number : 174 Question Id : 6780944977 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In which parameter passing technique of C++ passes only the contents of the variable to the receiving function

Options :

1. by reference
2. by value
3. globally

4. locally

Question Number : 175 Question Id : 6780944978 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which one of the following are essential features of an object-oriented programming language?

(i) Abstraction and encapsulation

(ii) Strictly-typedness

(iii) Type-safe property coupled with sub-type rule

(iv) Polymorphism in the presence of inheritance

Options :

1. (i) and (ii) only

2. (i) and (iv) only

3. (i), (ii) and (iv) only

4. (i), (iii) and (iv) only

Question Number : 176 Question Id : 6780944979 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A Constructor without any parameters is called_____ Constructor.

Options :

1. Custom

2. Dynamic

3. Static

4. Default

Question Number : 177 Question Id : 6780944980 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What will be the result of the code?

```
int a = 250, b = 400;
int *p = &a, *q = &b;
p = q;
```

Options :

1. b is assigned to a

2. p now points to b

3. a is assigned to b

4. q now points to a

Question Number : 178 Question Id : 6780944981 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of this program?

```
#include <iostream>
using namespace std;
int main()
{
    int i;
    char *arr[] = {"C", "C++", "Java", "VBA"};
    char *(*ptr)[4] = &arr;
    cout << ++(*ptr)[2];
    return 0;
}
```

Options :

1. ava

2. java

3. c++

4. compile time error

Question Number : 179 Question Id : 6780944982 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In C++, 'friend' keyword can be placed before _____?

Options :

1. function declaration

2. function definition

3. main function

4. Package

Question Number : 180 Question Id : 6780944983 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The if……else statement can be replaced by which operator?

Options :

1. Bitwise operator

2. Conditional operator

3. Multiplicative operator

4. Scope Resolution operator

Question Number : 181 Question Id : 6780944984 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Evaluate the following expression

(true && false) || true || false

Options :

1. 0

2. 1

3. false

4. 01

Question Number : 182 Question Id : 6780944985 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following automatic type conversion is supported in Java?

Options :

1. short to int

2. byte to int

3. int to long

4. long to int

Question Number : 183 Question Id : 6780944986 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What will be the return type of a method that will not return any value in a Java program?

Options :

1. void
2. int
3. double
4. string

Question Number : 184 Question Id : 6780944987 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is valid statement for declaration, and initializing an array?

Options :

1. int [ ] myData;
2. int [ ] myData = (15, 8, 22);
3. int myData [ ] [ ] = {34,19,27,20};
4. int myData [ ] = {34, 63, 77};

Question Number : 185 Question Id : 6780944988 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Java Compiler

Options :

1. Creates executable file
2. Creates new classes
3. Converts Java Source code to Byte code
4. Produces Java Interpreter

Question Number : 186 Question Id : 6780944989 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is true?

1. A class can extend more than one class.
2. A class can extend only one class but many interfaces.
3. An interface can extend many interfaces.
4. An interface can implement many interfaces.
5. A class can extend one class and implement many interfaces.

Options :

1. 1 and 2
2. 2 and 4
3. 3 and 5
4. 3 and 4

Question Number : 187 Question Id : 6780944990 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The concept of multiple inheritance is implemented in Java by

I. Extending two or more classes.

II. Extending one class and implementing one or more interfaces.

III. Implementing two or more interfaces.

Options :

1. Only (II)
2. (I) and (II)
3. (II) and (III)
4. Only (I)

Question Number : 188 Question Id : 6780944991 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following package contains Exception class?

Options :

1. java.util
2. java.file
3. java.io
4. java.lang

Question Number : 189 Question Id : 6780944992 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What does AWT stands for?

Options :

1. All Window Tools
2. All Writing Tools
3. Abstract Window Toolkit
4. Abstract Writing Toolkit

Question Number : 190 Question Id : 6780944993 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following blocks execute automatically whether exception is caught or not?

Options :

1. finally
2. catch
3. throws
4. throw

Question Number : 191 Question Id : 6780944994 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ Method cannot be overridden.

Options :

1. super
2. static
3. final
4. Private

Question Number : 192 Question Id : 6780944995 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the syntax in HTML for creating a link on a webpage?

Options :

1. <LINK SRC= "myexams.html">

1. <A SRC = "myexams.html" >

2. <BODY LINK = "myexams.html">

3. < A HREF = "myexams.html">

4.

Question Number : 193 Question Id : 6780944996 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is valid IP address?

Options :

1. 498.11.497.67

2. 192.168.321.10

3. 1.899.432.456

4. 192.168.36.115

Question Number : 194 Question Id : 6780944997 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of the following PHP code?

```
<?php
$x = 10;
$y = 20;
 if ($x > $y + $y != 3)
 print "today" ;
   else
   print "tomorrow";
  ?>
```

Options :

1. tomorrow

2. today

3. Error

4. No output

Question Number : 195 Question Id : 6780944998 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following protocol is used for e-mail services?

Options :

1. SMAP
2. SMTP
3. SMIP
4. SMOP

Question Number : 196 Question Id : 6780944999 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a web server?

Options :

1. Microsoft Bing
2. Apache Tomcat
3. Microsoft IIS
4. Oracle Web Tier

Question Number : 197 Question Id : 6780945000 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which one is the method of Connection object in ADO.Net?

Options :

1. open()
2. new()
3. ConnectionOpen()
4. connectionStart()

Question Number : 198 Question Id : 6780945001 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which one of the following statements instantiates the **mysqli** class in PHP programming?

Options :

1. mysqli = new mysqli()
2. $mysqli = new mysqli()

3. $mysqli->new.mysqli()

4. mysqli->new.mysqli()

Question Number : 199 Question Id : 6780945002 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following function is used to erase all session variables stored in the current session?

Options :

1. session_destroy()

2. session_unset()

3. session_change()

4. session_remove()

Question Number : 200 Question Id : 6780945003 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

How can you make a bulleted list with numbers?

Options :

1. <dl>

2.

3. <list>

4.

APECET 2017 PRELIMINARY KEY

Subject:COMPUTER SCIENCE AND ENGINEERING

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1	1	51	2	101	1	151	4
2	1	52	2	102	4	152	3
3	1	53	4	103	4	153	1
4	4	54	3	104	2	154	1
5	1	55	1	105	1	155	4
6	2	56	2	106	1	156	2
7	1	57	1	107	2	157	4
8	3	58	3	108	2	158	3
9	3	59	1	109	3	159	1
10	3	60	2	110	2	160	3
11	1	61	4	111	4	161	4
12	1	62	4	112	2	162	3
13	3	63	3	113	3	163	3
14	4	64	1	114	4	164	3
15	1	65	2	115	1	165	3
16	1	66	3	116	1	166	3
17	2	67	1	117	1	167	1
18	3	68	4	118	2	168	3
19	3	69	3	119	1	169	2
20	4	70	2	120	2	170	1
21	1	71	2	121	1	171	4
22	3	72	1	122	2	172	4
23	2	73	2	123	2	173	4
24	1	74	2	124	2	174	2
25	4	75	4	125	3	175	2
26	3	76	2	126	1	176	4
27	2	77	3	127	3	177	2
28	2	78	3	128	1	178	1
29	1	79	3	129	3	179	1
30	2	80	2	130	2	180	2
31	1	81	3	131	1	181	2
32	2	82	4	132	2	182	3
33	4	83	2	133	4	183	1
34	2	84	3	134	3	184	4
35	2	85	2	135	4	185	3
36	2	86	1	136	4	186	3
37	2	87	3	137	1	187	3
38	3	88	3	138	1	188	4
39	3	89	4	139	4	189	3
40	4	90	3	140	2	190	1
41	2	91	3	141	4	191	3
42	3	92	4	142	2	192	4
43	4	93	2	143	2	193	4
44	1	94	1	144	1	194	2
45	2	95	4	145	4	195	2
46	3	96	1	146	1	196	1
47	4	97	2	147	3	197	1
48	2	98	1	148	3	198	2
49	1	99	1	149	4	199	2
50	1	100	3	150	4	200	2