Question Paper Preview

Question Paper Name:	Computer Science and Engineering 30th April 2019 Shift1
Subject Name:	Computer Science and Engineering
Share Answer Key With Delivery Engine:	Yes
Actual Answer Key:	Yes

Mathematics

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

Question Number : 1 Question Id : 67809438457 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The adjoint of $A = \begin{pmatrix} 1 & 4 & -2 \\ -2 & -5 & 4 \\ 1 & -2 & 1 \end{pmatrix}$ is

Options :

1. $\begin{pmatrix} 1 & 4 & -2 \\ -2 & -5 & 4 \\ 1 & -2 & 1 \end{pmatrix}$

2. $\begin{pmatrix} 1 & 4 & -2 \\ -2 & -5 & 4 \\ 1 & -2 & 1 \end{pmatrix}$

3. $\begin{pmatrix} 3 & 0 & 6 \\ 6 & 3 & 0 \\ 9 & 6 & 3 \end{pmatrix}$

4. $\begin{pmatrix} 3 & 2 & 1 \\ 4 & 1 & -1 \\ 0 & 3 & 4 \end{pmatrix}$

Question Number : 2 Question Id : 67809438458 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If A is a square matrix of order 3 then (adj A).A=

Options :

1. A. (adj A)

2. A× (adj A)

3. A- (adj A)

4. A+ (adj A)

Question Number : 3 Question Id : 67809438459 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The inverse of $A=\begin{pmatrix}2 & 3\\ 2 & 5\end{pmatrix}$ is

Options :

1. $\begin{pmatrix}5/4 & -3/4\\ 1/2 & 1/2\end{pmatrix}$

2. $\begin{pmatrix}5/4 & 3/4\\ -1/2 & 1/2\end{pmatrix}$

3. $\begin{pmatrix}5/4 & -5/4\\ -1/2 & 1/2\end{pmatrix}$

4. $\begin{pmatrix}5/4 & -3/4\\ -1/2 & 1/2\end{pmatrix}$

Question Number : 4 Question Id : 67809438460 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $A=\begin{pmatrix}3 & 2 & x\\ 4 & 1 & -1\\ 0 & 3 & 4\end{pmatrix}$ is a singular matrix then the value of x is

Options :

1. $11/12$

2. $-11/12$

3. $13/12$

4. $5/4$

Question Number : 5 Question Id : 67809438461 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If A=$\begin{pmatrix} 3 & 1 \\ -1 & 2 \end{pmatrix}$ then $A^2 - 5A + 7I$ is

Options :

1. $\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$

2. $\begin{pmatrix} 0 & 3 \\ 2 & 0 \end{pmatrix}$

3. $\begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix}$

4. $\begin{pmatrix} 2 & 3 \\ 2 & 5 \end{pmatrix}$

Question Number : 6 Question Id : 67809438462 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Resolve $\frac{3x+7}{(x-1)(x-2)}$ into partial fractions

Options :

1. $\frac{12}{(x-2)} - \frac{10}{(x-1)}$

2. $\frac{13}{(x-2)} - \frac{10}{(x-1)}$

3. $\frac{13}{(x-5)} - \frac{10}{(x-1)}$

4. $\frac{13}{(x-2)} - \frac{10}{(x-7)}$

Question Number : 7 Question Id : 67809438463 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Resolve $\frac{5x^2+1}{x^3-1}$ into partial fractions

Options :

1. $\frac{12}{(x-2)} - \frac{10}{(x-1)}$

2. $\frac{13}{(x-2)} - \frac{10}{(x-1)}$

3. $\frac{13}{(x-5)} - \frac{10}{(x-1)}$

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

Question Number : 8 Question Id : 67809438464 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $tan^2\theta + sec\theta = 5$ then the value of $\cos\theta$ is

Options :

1. $-1/3$ *or* $1/2$

2. $-11/12$ *or* $1/2$

3. $13/12$ or $-1/3$

4. $5/4$ *or* $1/2$

Question Number : 9 Question Id : 67809438465 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $16sin^3\theta + 8cos^3\theta$ is

Options :

1. 3

2. 1

3. -3

4. 0

Question Number : 10 Question Id : 67809438466 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $sin\alpha = {}^{15}/_{17}$, $cos\beta = {}^{12}/_{13}$ then the value of $sin(\alpha + \beta)$ is

Options :

1. ${}^{110}/_{105}$

2. $-{}^{121}/_{152}$

3. ${}^{220}/_{221}$

4. ${}^{5}/_{4}$

Question Number : 11 Question Id : 67809438467 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $cos20^0 cos40^0 cos60^0 cos80^0$ is

Options :

1. ${}^{11}/_{12}$

2. ${}^{1}/_{16}$

3. ${}^{13}/_{12}$

4. ${}^{5}/_{4}$

Question Number : 12 Question Id : 67809438468 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\frac{\cos 17^0 + \sin 17^0}{\cos 17^0 - \sin 17^0}$ is

Options :

1. $\cos 20^0$

2. $\tan 65^0$

3. $\tan 60^0$

4. $\tan 62^0$

Question Number : 13 Question Id : 67809438469 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\sin\frac{\pi}{5}\sin\frac{2\pi}{5}\sin\frac{3\pi}{5}\sin\frac{4\pi}{5} =$

Options :

1. $\frac{4}{15}$

2. $\frac{5}{16}$

3. $\frac{-5}{16}$

4. $\frac{7}{15}$

Question Number : 14 Question Id : 67809438470 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $\tan^{-1}x + \tan^{-1}y + \tan^{-1}z = \frac{\pi}{2}$ then the value of $xy + yz + zx$ is

Options :

1. -1

2. 3

3. 5

4. 1

Question Number : 15 Question Id : 67809438471 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The general solution of $4\cos^2 x - 3 = 0$ is

Options :

1. $2n\pi \pm \frac{\pi}{6}$

2. $2n\pi \pm \frac{7\pi}{6}$

3. $3n\pi \pm \frac{5\pi}{6}$

4. $2n\pi \pm \frac{11\pi}{6}$

Question Number : 16 Question Id : 67809438472 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The modulus of a complex number $\sqrt{3}+i$ is

Options :

1. -2

2. 3

3. 2

4. 5

Question Number : 17 Question Id : 67809438473 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $(a-b)^2cos^2\left(\frac{C}{2}\right)+(a+b)^2sin^2\left(\frac{C}{2}\right)$ is

Options :

1. C^3

2. C

3. C^5

4. C^2

Question Number : 18 Question Id : 67809438474 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $x+\frac{1}{x}=2\cos\theta$ then the value of $x^n+\frac{1}{x^n}$ is

Options :

1. $2\cos n\theta$

2. $-2\cos n\theta$

3. $3\cos\theta$

4. $2\sin n\theta$

Question Number : 19 Question Id : 67809438475 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $2tan^{-1}\left(\frac{1}{3}\right)+tan^{-1}\left(\frac{1}{7}\right)$ is

Options :

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

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

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

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

Question Number : 20 Question Id : 67809438476 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of the major axis of the ellipse: $4x^2+3y^2=48$ is

Options :

1. 10

2. 11

3. 12

4. 13

Question Number : 21 Question Id : 67809438477 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Centre of the ellipse: $9x^2+25y^2-18x+100y-116=0$ is

Options :

1. $(2,-1)$

2. $(-1,-2)$

3. $(1,-2)$

4. $(1,2)$

Question Number : 22 Question Id : 67809438478 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The equation of the parabola with vertex $(2,-1)$ and focus $(2,-3)$ is

Options :

1. $x^2-4x+8y+12=0$

2. $x^2-4x-8y-12=0$

3. $x^2+4x-8y-12=0$

4. $x^2+5x-8y-11=0$

Question Number : 23 Question Id : 67809438479 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The length of the latus rectum of the hyperbola: $\frac{x^2}{9}-\frac{y^2}{16}=1$ is

Options :

1. 9 units

2. 5 units

3. 6 units

4. 13 units

Question Number : 24 Question Id : 67809438480 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the length of latus rectum is $\frac{9}{2}$ and the distance between its foci is 10 then the equation of hyperbola is

Options :

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

2. $\frac{x^2}{18}-\frac{y^2}{9}=1$

3. $\frac{x^2}{16}-\frac{y^2}{6}=1$

4. $\frac{x^2}{16}-\frac{y^2}{9}=1$

Question Number : 25 Question Id : 67809438481 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The equation of the parabola with focus at (-3.2) and vertex (-2.2) is

Options :

1. $x^2-4x+8y+12=0$

2. $x^2+5x-8y-11=0$

3. $y^2+4x-4y+12=0$

4. $x^2-4x-8y-12=0$

Question Number : 26 Question Id : 67809438482 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $y=\frac{a+bx}{b-ax}$ then the derivative of y with respect to x is

Options :

1. $\frac{a^2+b^2}{(b-ax)^2}$

2. $\frac{a^2+b^2}{(b+ax)^2}$

3. $\frac{a^2-b^2}{(b-ax)^2}$

4. $\frac{a+b}{(b-ax)^2}$

Question Number : 27 Question Id : 67809438483 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $y = \frac{2+3\sinh x}{3+2\sinh x}$ then the derivative of y with respect to x is

Options :

1. $\frac{5\cosh x}{(3+2\sinh x)^2}$

2. $\frac{5\sinh x}{(3+2\sinh x)^2}$

3. $\frac{5\sin x}{(3-2\cosh x)^2}$

4. $\frac{sinh^2 x}{(2-3\sinh x)^2}$

Question Number : 28 Question Id : 67809438484 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The range of x for which the function $x^3 - 3x^2 - 45x + 2$ is increasing with x is

Options :

1. $(3, -5)$

2. $(-3, -5)$

3. $(3,5)$

4. $(-3,5)$

Question Number : 29 Question Id : 67809438485 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If u is a homogeneous function of x and y with degree n then $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y} =$

Options :

1. $-nu$

2. n^2u

3. nu

4. $nu^2 + u$

Question Number : 30 Question Id : 67809438486 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The angle between the curves $y = x^2 + 3x - 7$ and $y^2 = 2x + 5$ at $(2,3)$ is

Options :

1. $\tan\theta = 2$

2. $\sec\theta = 2$

3. $\cos\theta = 1$

4. $\sin\theta = 3$

Question Number : 31 Question Id : 67809438487 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The maximum value of the function $2x^3 - 12x^2 + 18x + 5$ is

Options :

1. 13

2. 12

3. 10

4. 15

Question Number : 32 Question Id : 67809438488 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The three sides of a trapezium are equal each being 6" long then the area of the trapezium when it is maximum is

Options :

1. 27 square units

2. 33 square units

3. $27\sqrt{3}$ square units

4. $29\sqrt{3}$ square units

Question Number : 33 Question Id : 67809438489 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The interval in which the function $f(x) = x^2 logx$ is an increasing function is

Options :

1. $(1\ ,\ e^{-1/2}\ )$

2. $(2\ ,\ e^{-1/2}\ )$

3. $(0\ ,\ e^{1/2}\ )$

4. $(0\ ,\ e^{-1/2}\ )$

Question Number : 34 Question Id : 67809438490 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The stationary points and the corresponding values of the function $f(x) = x^3 - 9x^2 + 15x - 1$ is

Options :

1. 6,-26

2. 3,-26

3. 6,26

4. -6,-26

Question Number : 35 Question Id : 67809438491 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If $u = \log\left(\frac{x^2+y^2}{x+y}\right)$ then $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y}$ =

Options :

1. 2

2. 4

3. 5

4. 1

Question Number : 36 Question Id : 67809438492 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int \log x \, dx$ is

Options :

1. $x \log x + x + c$

2. $x^2 \log x - x + c$

3. $x \log x - x + c$

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

Question Number : 37 Question Id : 67809438493 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\lim_{n\to\infty} \left[\frac{1}{n+1} + \frac{1}{n+2} + \cdots .. + \frac{1}{n+n}\right]$ is

Options :

1. $\log 2$

2. $\log 3$

3. $-\log 2$

4. $\log n$

Question Number : 38 Question Id : 67809438494 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int \frac{\cos\sqrt{x}}{\sqrt{x}} dx$ is

Options :

1. $2 \sin \sqrt{x} + c$

2. $3 \sin \sqrt{x} + c$

3. $2 \sin x + c$

4. $\sin\sqrt{x}+c$

Question Number : 39 Question Id : 67809438495 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The area enclosed between the curve $y^2 = 4ax$ and the line $x = 2y$ is

Options :

1. $\frac{64}{5}$ sq. units

2. $\frac{64}{3}$ sq. units

3. $\frac{65}{4}$ sq. units

4. $\frac{63}{4}$ sq. units

Question Number : 40 Question Id : 67809438496 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int_1^{\frac{\pi}{2}} sin^2x\,dx$ is

Options :

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

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

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

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

Question Number : 41 Question Id : 67809438497 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int_1^4 \left(\sqrt{x}+\frac{1}{\sqrt{x}}\right)dx$ is

Options :

1. $\frac{20}{3}$

2. $-\frac{20}{3}$

3. $\frac{10}{3}$

4. $\frac{15}{3}$

Question Number : 42 Question Id : 67809438498 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int_0^{\pi/4} \sqrt{1+sin2x}\, dx =$

Options :

1. -1

2. -3

3. 3

4. 1

Question Number : 43 Question Id : 67809438499 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of $\int_0^{\pi/2} \frac{sinx}{1+cos^2x}\, dx =$

Options :

1. $\pi/4$

2. $-\pi/4$

3. $\pi/3$

4. $\pi/2$

Question Number : 44 Question Id : 67809438500 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The particular integral of $(D^2+5D+6)y = e^x$ is

Options :

1. $\frac{-e^{-x}}{12}$

2. $\frac{e^{2x}}{12}$

3. $\frac{e^{x}}{12}$

4. $\frac{e^{x}}{6}$

Question Number : 45 Question Id : 67809438501 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Form the differential equation by eliminating the arbitrary constant a from $ay^2 = x^3$

Options :

1. $\frac{dy}{dx} = \frac{3y}{2x}$

2. $\frac{dy}{dx} = \frac{2x}{3y}$

3. $\frac{dy}{dx} = \frac{x}{y}$

4. $\frac{dy}{dx} = \frac{2y}{x}$

Question Number : 46 Question Id : 67809438502 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The solution of $\frac{dy}{dx} + y = e^{-x}$ is

Options :

1. $(x + c)e^{-x}$

2. $(x - c)e^{x}$

3. $(x + c)e^{x}$

4. $(x + c)e^{-2x}$

Question Number : 47 Question Id : 67809438503 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The complementary function of $(D^2 + 3D + 2)y = 8sin5x$ is

Options :

1. $c_1e^{-x} + c_2e^{-2x}$

2. $c_1e^{x} + c_2e^{2x}$

3. $c_1e^{-x} + c_2e^{2x}$

4. $c_1e^{2x} + c_2e^{3x}$

Question Number : 48 Question Id : 67809438504 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The solution of exact differential equation $2xy\,dx + x^2dy = 0$ is

Options :

1. $x^2y^2 = c$

2. $x^2y = c$

3. $x^3y = c$

4. $x^2y^3 = c$

Question Number : 49 Question Id : 67809438505 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Form the differential equation representing the family of curves $x^2 = 4ay$, where a is any arbitrary constant

Options :

1. $x\frac{dy}{dx} - 2y = 0$

2. $x\frac{dy}{dx} + 2y = 0$

3. $x\frac{dy}{dx} - 6y = 0$

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

Question Number : 50 Question Id : 67809438506 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The solution of $\frac{dy}{dx} + y\cot x = \cos x$ is

Options :

1. $y\sin x = \frac{-\cos 2x}{4} + c$

2. $y\sin x = \frac{\cos 2x}{4} + c$

3. $y\sin x = \frac{-\cos 5x}{4} + c$

4. $y\cos x = \frac{-\cos 2x}{4} + c$

Physics

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

Question Number : 51 Question Id : 67809438507 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In the equation $\frac{\alpha}{t^2} = Fv + \frac{\beta}{x^2}$ the dimensional formula for [α], [β] is (here t = time, F= force, v = velocity, x = distance)

Options :

1. $MLT^{-1},\ MLT^{-3}$

2. $ML^2T,\ ML^4T^2$

3. $ML^2T^{-1},\ ML^4T^{-3}$

4. $ML^3T^{-1},\ MLT^{-3}$

Question Number : 52 Question Id : 67809438508 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following quantities has not been expressed in proper units?

Options :

1. Young's modulus=N/m^2

2. Surface tension=N/m

3. Pressure = N/m^2

4. Energy=kg m/s

Question Number : 53 Question Id : 67809438509 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Three vectors A, B and C satisfy the relation A.B=0 and A.C=0. The vector A is parallel to

Options :

1. B

2. C

3. B.C

4. BxC

Question Number : 54 Question Id : 67809438510 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If three vectors A, B and C are 12, 5 and 13 in magnitude such that C=A+B, then the angle between A and B is

Options :

1. 60^0

2. 90^0

3. 120^0

4. 30^0

Question Number : 55 Question Id : 67809438511 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A stone dropped from a certain height, can reach the ground in 5s. It is stopped after 3 seconds of its fall and then allowed to fall again. The time taken by the stone to reach the ground for the remaining distance is

Options :

1. 2 s

2. 6 s

3. 4 s

4. 1 s

Question Number : 56 Question Id : 67809438512 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The range of projectile fired at an angle of 15^0 is 50m. If it is fired with the same speed at an angle of 45^0, its range will be

Options :

1. 25 m

2. 37 m

3. 50 m

4. 100 m

Question Number : 57 Question Id : 67809438513 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A freely falling body acquires a velocity 'v' m/s in falling through a distance of 80m. How much further distance should it fall, so as to acquire a velocity of '2v' m/s?(Take g=10 m/s^2)

Options :

1. 240 m

2. 200 m

3. 400 m

4. 280 m

Question Number : 58 Question Id : 67809438514 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A block is projected along a rough horizontal road with a speed of 10 m/s. If the coefficient of kinetic friction is 0.10, how far will it travel before coming to rest ?

Options :

1. 50 m

2. 60 m

3. 40 m

4. 10 m

Question Number : 59 Question Id : 67809438515 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What force is required to push a 200 N body up a 30^0 smooth incline with an acceleration of 2 m/s^2? The force is to be applied along the plane is (Take g=10 m/s^2)

Options :

1. 40 N

2. 60 N

3. 80 N

4. 140 N

Question Number : 60 Question Id : 67809438516 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A block of mass 2 kg rests on a rough inclined plane making an angle of 30^0 with the horizontal. The coefficient of static friction between the block and the plane is 0.7. The frictional force on the block is

Options :

1. 9.8N

2. 0.78 x 9.8 N

3. $9.8 \times \sqrt{3}$ N

4. $0.7 \times 9.8\sqrt{3}$ N

Question Number : 61 Question Id : 67809438517 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A man moves on a straight horizontal road with a block of mass 2 kg in his hand. If he covers a distance of 40 m with an acceleration of 0.5 m/s^2, the work done by the man on the block during the motion is (Take g=10 m/s^2)

Options :

1. 40 J

2. 1 J

3. 80 J

4. 20 J

Question Number : 62 Question Id : 67809438518 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a factory it is desired to lift 2000 kg of metal through a distance of 12 m in 1 minute. The minimum horse power of the engine to be used is

Options :

1. 3.5

2. 5.3

3. 4.3

4. 5.8

Question Number : 63 Question Id : 67809438519 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Energy harnessed from flowing water is called --------- energy

Options :

1. Hydel

2. Solar

3. Tidal

4. Geothermal

Question Number : 64 Question Id : 67809438520 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

When a particle executing simple harmonic motion passes through the mean position, it has

Options :

1. minimum K.E and maximum P.E.

2. maximum K.E and maximum P.E.

3. maximum K.E and minimum P.E.

4. mimimum K.E. and mimimum P.E.

Question Number : 65 Question Id : 67809438521 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A particle of mass 200 g executes a simple harmonic motion. The restoring force is provided by a spring of spring constant 80 N/m. The time period is

Options :

1. 0.2 s

2. 0.41 s

3. 0.31 s

4. 0.5 s

Question Number : 66 Question Id : 67809438522 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The temperature at which the speed of sound will be double of its value at 0^0C is

Options :

1. 819^0 C

2. 850^0C

3. 919^0C

4. 900^0C

Question Number : 67 Question Id : 67809438523 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the source of sound moves towards an observer, then

Options :

1. The frequency of the source is increased

2. The velocity of sound in the medium is increased

3. The wavelength of sound in the medium towards the observer is decreased

4. The amplitude of vibration of the particles is increased.

Question Number : 68 Question Id : 67809438524 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A cinema hall has a volume of 7500 m^3. The total absorption in the hall if the reverberation time of 1.5 s is to be maintained is

Options :

1. 800 OWU

2. 925 OWU

3. 950 OWU

4. 825 OWU

Question Number : 69 Question Id : 67809438525 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

One mole of oxygen is heated at constant pressure starting at 0^0C. The heat energy that must be supplied to the gas to double its volume is

Options :

1. 2.5 x 273 x R

2. 3.5 x 273 x R

3. 2.5 x 546 x R

4. 3.5 x 546 x R

Question Number : 70 Question Id : 67809438526 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A vessel contains a gas at a temperature of 27^0C and a pressure of 20 atm. If one half of the gas is released and the temperature of the remaining gas is raised by 50^0C, the new pressure will be

Options :

1. 12.24 atm

2. 11.67 atm

3. 13.79 atm

4. 11 atm

Question Number : 71 Question Id : 67809438527 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The temperature of 5 gm of air is raised from 0^0 C to 1^0 C. The increase in the internal energy of air is (C_v = 0.172 cal/gm/ ^{0} C and J = 4.18 x 10^7 erg/cal)

Options :

1. 3.595 x 10^7 erg

2. 3 x 10^7 erg

3. 4.5 x 10^7 erg

4. 2.595 x 10^7 erg

Question Number : 72 Question Id : 67809438528 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In all reversible processes entropy of the system

Options :

1. decreases

2. increases

3. remains constant

4. remains zero

Question Number : 73 Question Id : 67809438529 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If one mole of a monoatomic gas ('Y'=5/3) is mixed with one mole of a diatomic gas ('Y'=7/5), the value of 'Y' for the mixture is

Options :

1. 1.40

2. 1.50

3. 1.53

4. 3.07

Question Number : 74 Question Id : 67809438530 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Electrons are emitted with zero velocity from a certain metal surface when it is exposed to radiations of wavelength 7000 A^0. The work function of the metal is

Options :

1. 1 eV

2. 1.52 eV

3. 2.52 eV

4. 1.77 eV

Question Number : 75 Question Id : 67809438531 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A superconducting material exhibits

Options :

1. zero conductivity and complete diamagnetism

2. zero resistivity and complete paramagnetism

3. infinite conductivity and complete paramagnetism

4. zero resistivity and complete diamagnetism

Display Number Panel: Yes
Group All Questions: No

Question Number : 76 Question Id : 67809438532 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The splitting of spectral lines in a strong magnetic field is called

Options :

1. Stark effect

2. Pauli Exclusion Principle

3. Zeeman effect

4. Aufbau Principle

Question Number : 77 Question Id : 67809438533 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Bohr's model can explain

Options :

1. The spectrum of hydrogen atom only

2. The spectrum of hydrogen molecule

3. The solar spectrum

4. Spectrum of an atom or ion containing one electron only

Question Number : 78 Question Id : 67809438534 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The maximum number of electrons that a d-orbital can accommodate is

Options :

1. 2

2. 6

3. 10

4. 14

Question Number : 79 Question Id : 67809438535 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Magnesium Atomic number is 12, which of the following is the electronic configuration

Options :

1. $1S^2\ 2S^1\ 2P^6\ 3S^2$

2. $1S^2\ 2S^2\ 2P^5\ 3S^2$

3. $1S^2\ 2S^2\ 2P^6\ 3S^2$

4. $1S^2\ 2S^2\ 2P^6\ 3S^1 3d^1$

Question Number : 80 Question Id : 67809438536 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

N_2 molecule contains

Options :

1. Covalent bond

2. Ionic bond

3. Hydrogen bond

4. Metalic bond

Question Number : 81 Question Id : 67809438537 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

One mole of any of the particles contains

Options :

1. $6.023X\ 10^{-23}$

2. $6.022X\ 10^{23}$

3. $60.23X\ 10^{23}$

4. $6.023X\ 10^{25}$

Question Number : 82 Question Id : 67809438538 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The normality of the solution obtained by dissolving 4 gm of NaOH in 1Litre is

Options :

1. 1N

2. 0.1N

3. 0.5N

4. 0.02N

Question Number : 83 Question Id : 67809438539 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Molecular weight of H_2SO_4 is

Options :

1. 92

2. 96

3. 98

4. 99

Question Number : 84 Question Id : 67809438540 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A Lewis acid is a substance which

Options :

1. Accept protons

2. Accept a lone pair of electrons

3. Donate protons

4. Donate a lone pair of electrons

Question Number : 85 Question Id : 67809438541 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

P^H of a solution is 9.5, the solution is

Options :

1. Basic

2. Acidic

3. Neutral

4. Amphoteric

Question Number : 86 Question Id : 67809438542 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Laws of electrolysis were given by

Options :

1. Ostwald

2. Faraday

3. Arrhenius

4. Volta

Question Number : 87 Question Id : 67809438543 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Common electrolyte used in the salt bridge is

Options :

1. NaOH

2. $NaCO_3$

3. KCl

4. KOH

Question Number : 88 Question Id : 67809438544 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Standard Reduction Potential of an element is equal to

Options :

1. 1 X Its reduction potential

2. -1 X Its standard oxidation potential

3. -1 X Its reduction potential

4. 1 X Its standard oxidation potential

Question Number : 89 Question Id : 67809438545 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The standard emf for the cell reaction, $Zn+Cu^{+2} \rightarrow Cu + Zn^{2+}$ is 1.10 V at 25°C. The emf of the cell reaction when 0.1 M Cu^{+2} and 0.1 M Zn^{+2} solutions are used at 25°C is

Options :

1. 1.10V
2. 0.11V
3. -1.10V
4. -0.11V

Question Number : 90 Question Id : 67809438546 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which chemical is responsible for permanent hardness of water?

Options :

1. KCl
2. $MgCl_2$
3. NaCl
4. AgCl

Question Number : 91 Question Id : 67809438547 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Permutit is chemically

Options :

1. Sodium Silicate
2. Aluminium Silicate
3. Hydrated Sodium alumino silicate
4. Calicium silicate

Question Number : 92 Question Id : 67809438548 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The cation exchange resin possesses

Options :

1. Acidic group

2. Basic group

3. Amphoteric group

4. Benzo group

Question Number : 93 Question Id : 67809438549 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Chemically the rust is

Options :

1. Fe_2O_3

2. Fe_2O_3. FeO

3. $Fe_2O_3.XH_2O$

4. Fe_2O_3 . NH_3

Question Number : 94 Question Id : 67809438550 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Galvanizing is the process of coating iron with

Options :

1. Mg

2. Cu

3. Au

4. Zn

Question Number : 95 Question Id : 67809438551 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a thermoplastic ?

Options :

1. Bakelite

2. Polystyrene

3. Polythene

4. Nylon

Question Number : 96 Question Id : 67809438552 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Isoprene is a monomer of

Options :

1. Starch

2. Cellulose

3. Natural rubber

4. Lignin

Question Number : 97 Question Id : 67809438553 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Buna-S is a copolymer of

Options :

1. Butadiene and Styrene

2. Butadiene and Acrylonitrile

3. Butadiene and Isoprene

4. Formaldehyde and Styrene

Question Number : 98 Question Id : 67809438554 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Main constituent of natural gas is

Options :

1. Ethane

2. Methane

3. Butane

4. Carbon Monoxide

Question Number : 99 Question Id : 67809438555 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Ozone layer is present at

Options :

1. Staratosphere

2. Inosphere

3. Thermosphere

4. Atmosphere

Question Number : 100 Question Id : 67809438556 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The amount of DO required to aerobically decompose biodegradable organic matter of a given volume of water is

Options :

1. Biochemical Oxygen Demand

2. Biological Oxygen Demand

3. Chemical Oxygen demand

4. Biomagnification

Computer Science and Engineering

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

Question Number : 101 Question Id : 67809438557 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following was the first version in the TTL family?

Options :

1. Standard

2. Low-power

3. Schottky

4. Fast

Question Number : 102 Question Id : 67809438558 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The logical sum of all the minterms of a Boolean function of n variables is

Options :

1. 0

2. 1

3. n

4. n(n+1)/2

Question Number : 103 Question Id : 67809438559 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Circuits that generate the parity bit in the receiver and transmitter are called _____ and _____ respectively.

Options :

1. Parity checker, Parity Generator

2. Parity Generator, Parity checker

3. Parity Generator, Parity encoder

4. Parity encoder, parity decoder

Question Number : 104 Question Id : 67809438560 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The characteristic equation for the complement output of a JK flip flop is

Options :

1. Q'(t+1) = J'Q'+KQ

2. Q'(t+1) = J'Q'+KQ'

3. Q'(t+1) = J'Q+KQ'

4. Q'(t+1) = J'Q+K'Q'

Question Number : 105 Question Id : 67809438561 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If the register has both shifts and parallel load capabilities that is referred to as

Options :

1. Universal shift register

2. Unidirectional shift register

3. Bidirectional shift register

4. Parallel shift register

Question Number : 106 Question Id : 67809438562 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The capacity of a memory unit is usually stated as the total number of _____ that it can store.

Options :

1. Words

2. Bytes

3. Addresses

4. Bits

Question Number : 107 Question Id : 67809438563 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following offers shorter read and write cycles?

Options :

1. Fast RAM

2. Commercial RAM

3. Static RAM

4. Dynamic RAM

Question Number : 108 Question Id : 67809438564 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

4-to-16 line decoder can be constructed with ___ 2-to-4 line decoders with enable.

Options :

1. 4

2. 2

3. 5

4. 8

Question Number : 109 Question Id : 67809438565 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following registers of 8086 can also be used for memory addressing when data is transferred between I/O port and memory using certain I/O instructions.

Options :

1. AX

2. BX

3. CX

4. DX

Question Number : 110 Question Id : 67809438566 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In _____ addressing mode the operand is specified in the instruction itself.

Options :

1. Implicit

2. Immediate

3. Direct memory

4. Displacement

Question Number : 111 Question Id : 67809438567 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ pin of 8086 is for data enable.

Options :

1. ALE

2. $\overline{DEN}$

3. DT/$\overline{R}$

4. $\overline{Lock}$

Question Number : 112 Question Id : 67809438568 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The intervals of no bus activity that occur between bus cycles are known as _____ state.

Options :

1. Idle

2. Busy

3. Wait

4. Ready

Question Number : 113 Question Id : 67809438569 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In minimum mode interface, the memory segment status code s_4s_3 = 00 identifies

a register known as _____ segment register as the source of the segment

address.

Options :

1. Extra

2. Stack

3. Code/None

4. Data

Question Number : 114 Question Id : 67809438570 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ register of 8086 can be used for I/O operations and string manipulation.

Options :

1. Count

2. Data

3. Accumulator

4. Base

Question Number : 115 Question Id : 67809438571 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following processor has a built in math co-processor in a single chip.

Options :

1. 80186

2. 80286

3. 80386

4. 80486

Question Number : 116 Question Id : 67809438572 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ instruction copies the contents of AH to lower byte of flag register of 8086.

Options :

1. LAHF

2. SAHF

3. PUSHF

4. POPF

Question Number : 117 Question Id : 67809438573 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The flag of 8086 that is not affected by the instruction INC Scr is _____.

Options :

1. AF

2. SF

3. CF

4. ZF

Question Number : 118 Question Id : 67809438574 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Intel 80386 contains a circuitry of _____ transistors.

Options :

1. 2,75,000

2. 1,75,000

3. 3,75,000

4. 75,000

Question Number : 119 Question Id : 67809438575 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

An overflow will be detected if the carry into the sign bit position and the carry out

of the sign bit position are_____.

Options :

1. equal

2. not equal

3. both zeros

4. both ones

Question Number : 120 Question Id : 67809438576 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Statement 1: Zero cannot be normalized.

Statement 2: Zero does not have a nonzero digit.

Options :

1. Statement 1 and statement 2 are true and statement 2 is the correct explanation for statement 1

2. Statement 1 and statement 2 are true and statement 2 is not the correct explanation for statement 1

3. Both Statement 1 and statement 2 are false

4. Statement 1 is true and statement 2 is false

Question Number : 121 Question Id : 67809438577 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The instruction that stores the address of the next instruction in sequence into a memory location specified by the effective address is _____.

Options :

1. BUN

2. LDA

3. BSA

4. STA

Question Number : 122 Question Id : 67809438578 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A_____ command is issued to activate the peripheral and to inform it what to do.

Options :

1. I/O

2. Status

3. Input

4. Control

Question Number : 123 Question Id : 67809438579 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Ten characters per second with an 11-bit format has a transfer rate of _____ baud.

Options :

1. 880

2. 110

3. 88

4. 80

Question Number : 124 Question Id : 67809438580 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ is an address that points to a location in memory where the beginning address of the I/O service routine is stored.

Options :

1. Program Counter

2. Interrupt Register

3. Interrupt Vector

4. Fixed Location

Question Number : 125 Question Id : 67809438581 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The CPU can communicate with the DMA registers through the data bus to read from or write to the DMA registers, when BG (Bus Grant) input is _____.

Options :

1. 1

2. 0

3. non zero

4. neither 0 nor 1

Question Number : 126 Question Id : 67809438582 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The devices that provide backup storage are called _____ memory.

Options :

1. Main

2. Auxiliary

3. Associative

4. Cache

Question Number : 127 Question Id : 67809438583 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

How many 128 X 8 RAM chips are needed to provide a memory capacity of 2048 bytes?

Options :

1. 2

2. 4

3. 8

4. 16

Question Number : 128 Question Id : 67809438584 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A computer with cache access time of 100ns, a main memory access time of

1000ns and a hit ratio of 0.9 produces an average time of _____.

Options :

1. 200ns

2. 10ns

3. 900ns

4. 1100ns

Question Number : 129 Question Id : 67809438585 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the output of the following program:

```
main()
{
    Char *p;
    p="$#%\n";
    p=p+3;
    printf("%c", *(p-3));
}
```

Options :

1. %
2. \
3. $
4. Error

Question Number : 130 Question Id : 67809438586 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The output of the following program is _____.

```
main()
{
    int num=0;
    while((num--)!=0)
       num++;
   printf("%d", num);
}
```

Options :

1. 0

2. 1

3. -1

4. Error

Question Number : 131 Question Id : 67809438587 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Statement1: We can define a function within another function.

Statement 2: By, default the return value of any function is float.

Options :

1. Both Statement 1 and statement 2 are true

2. Statement 1 is true and statement 2 is false

3. Statement 1 is false and statement 2 is true

4. Both Statement 1 and statement 2 are false

Question Number : 132 Question Id : 67809438588 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The output of the following program is _____.

```
main()
{
    int num [ ]={1,2,3,4,5};
    int i, *pnum = num;
    for(i=0;i<5; i++){
      printf("%d", *num);
      pnum++;
   }
}
```

Options :

1. 1 2 3 4 5

2. 1 1 1 1 1

3. 0 1 2 3 4

4. Error

Question Number : 133 Question Id : 67809438589 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ handles the logic behind all the #directives in C.

Options :

1. Loader

2. Preprocessor

3. Compiler

4. Linker

Question Number : 134 Question Id : 67809438590 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Sorting techniques when applied to data items available in the secondary

memory are referred to as _____ sorting techniques.

Options :

1. External

2. Internal

3. Secondary

4. Auxiliary

Question Number : 135 Question Id : 67809438591 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following characteristic of the data is not required for linear search

but essential for binary search?

Options :

1. Length of the list

2. Maximum value in the list

3. Type of elements of the list

4. Order of the elements of the list

Question Number : 136 Question Id : 67809438592 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a queue, we remove the item that is _____ added.

Options :

1. Least recently

2. Most recently

3. both Least recently and Most recently

4. Either Least recently or Most recently

Question Number : 137 Question Id : 67809438593 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Match the following for binary tree traversal

(1) Pre Order	(A) Root Left Right
(2) In Order	(B) Left Right Root
(3) Post Order	(C)Left Root Right

Options :

1. 1 → A, 2 → B, 3 → C

2. 1 → A, 2 → C, 3 → B

3. 1 → B, 2 → A, 3 → C

4. 1 → C, 2 → B, 3 → A

Question Number : 138 Question Id : 67809438594 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Sorting of playing cards in our hands is an example for _____ sort

Options :

1. Selection

2. Insertion

3. Bubble

4. Merge

Question Number : 139 Question Id : 67809438595 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In ____ topology, every device has a dedicated point-to-point link to every other device.

Options :

1. Mesh

2. Star

3. Bus

4. Ring

Question Number : 140 Question Id : 67809438596 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

IP address which is reserved for loopback testing is _____.

Options :

1. 192.0.0.1

2. 127.0.0.1

3. 255.255.255.255

4. 10.255.255.255

Question Number : 141 Question Id : 67809438597 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ Cable accepts and transports signals in the form of light.

Options :

1. Twisted pair

2. Coaxial

3. Optical fiber

4. Copper

Question Number : 142 Question Id : 67809438598 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The size of the MAC Address and IPV4 addresses are _____ and _____

respectively.

Options :

1. 64, 32

2. 48, 64

3. 64, 48

4. 48, 32

Question Number : 143 Question Id : 67809438599 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The first address of a block of classless addresses if one of the addresses is

12.2.2.127/28 is _____.

Options :

1. 12.2.2.0

2. 12.2.2.96

3. 12.2.2.112

4. 12.2.2.28

Question Number : 144 Question Id : 67809438600 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In classful addressing, when a direct delivery is made, both the deliverer and

receiver have the same _____.

Options :

1. netid

2. hostid

3. IP address

4. Next hop address

Question Number : 145 Question Id : 67809438601 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The TELNET server uses _____ port and the TELNET client uses _____

port.

Options :

1. an ephemeral; another ephemeral

2. a well-known; another well-known

3. an ephemeral; a well-known

4. a well-known; an ephemeral

Question Number : 146 Question Id : 67809438602 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The data connection can be opened _____, during an FTP session.

Options :

1. exactly once

2. exactly twice

3. as many times as necessary

4. None of the above is correct

Question Number : 147 Question Id : 67809438603 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

HTTP uses the services of TCP on well-known port _____.

Options :

1. 13

2. 21

3. 80

4. 88

Question Number : 148 Question Id : 67809438604 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

SMTP is a _____protocol.

Options :

1. Pull

2. Push

3. Pull and Push

4. Neither Pull nor Push

Question Number : 149 Question Id : 67809438605 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The function key that needs to be pressed to enter in Safe Mode while rebooting a Windows system is _____.

Options :

1. F1

2. F2

3. F8

4. F9

Question Number : 150 Question Id : 67809438606 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the default Web browser of Windows operating system?

Options :

1. Internet Explorer

2. Safari

3. Opera

4. Chrome

Question Number : 151 Question Id : 67809438607 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Windows system call CreatePipe() falls into _____ category of system calls.

Options :

1. Process Control

2. Device Manipulation

3. Protection

4. Communication

Question Number : 152 Question Id : 67809438608 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The list of processors waiting for a particular I/O device is called a _____

queue.

Options :

1. Device

2. I/O

3. Job

4. Ready

Question Number : 153 Question Id : 67809438609 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Degree of multiprogramming is controlled by _____ scheduler.

Options :

1. Long term

2. Short term

3. Medium term

4. Very short term

Question Number : 154 Question Id : 67809438610 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The time taken by the dispatcher to stop one process and start another running is known as the _____.

Options :

1. Dispatch latency
2. Waiting time
3. Turnaround time
4. Response time

Question Number : 155 Question Id : 67809438611 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Consider the following snapshot of a system:

	Allocation	Max	Available
	A B C D	A B C D	A B C D
P_0	0 0 1 2	0 0 1 2	1 5 2 0
P_1	1 0 0 0	1 7 5 0	
P_2	1 3 5 4	2 3 5 6	

Using Banker's algorithm, the content of the matrix Need is _____.

Options :

1. $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 7 & 5 & 0 \\ 1 & 0 & 0 & 2 \end{bmatrix}$
2. $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 2 \end{bmatrix}$

3. $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 7 & 5 & 0 \\ 1 & 3 & 5 & 4 \end{bmatrix}$

4. $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 5 & 2 & 0 \\ 1 & 0 & 0 & 2 \end{bmatrix}$

Question Number : 156 Question Id : 67809438612 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

External fragmentation occurs in _____.

Options :

1. Paging

2. Segmentation

3. Both Paging & Segmentation

4. Nether Paging nor Segmentation

Question Number : 157 Question Id : 67809438613 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The page replacement algorithm which suffers with Belady's anomaly is _____.

Options :

1. FCFS

2. LRU

3. LFU

4. Optimal

Question Number : 158 Question Id : 67809438614 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ scheduling performs better for systems that place a heavy load on the disk.

Options :

1. FCFS

2. SSTF

3. SCAN

4. C-SCAN

Question Number : 159 Question Id : 67809438615 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

To keep track of free disk space, the system maintains a _____ list.

Options :

1. Free-space

2. Disk-allocation

3. File-allocation

4. Empty-space

Question Number : 160 Question Id : 67809438616 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In RR Scheduling, a rule of thumb is that ___ % of the CPU bursts should be shorter than the time quantum.

Options :

1. 20

2. 50

3. 80

4. 90

Question Number : 161 Question Id : 67809438617 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following is false with respect to centralized control of the data?

Options :

1. Redundancy can be reduced

2. Data can be shared

3. Integrity can be maintained

4. Standards cannot be enforced

Question Number : 162 Question Id : 67809438618 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ constraints are constraints implied by the existence of foreign keys.

Options :

1. Key

2. Referential

3. Entity

4. Other

Question Number : 163 Question Id : 67809438619 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In _____ data model, the information about the description of the data

(schema) is contained within the data itself.

Options :

1. Object-based

2. Network

3. Semi structured

4. Physical

Question Number : 164 Question Id : 67809438620 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In _____ mapping, each instance of entity type E1 is associated with at most

one instance of entity type E2 and vice-versa.

Options :

1. One-to-one

2. One-to-many

3. Many-to-one

4. Many-to-many

Question Number : 165 Question Id : 67809438621 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The symbol used for existential quantifier is _____.

Options :

1. Σ

2. £

3. ¬

4. ∃

Question Number : 166 Question Id : 67809438622 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The operator that selects values that match any value in a given list of values is

Options :

1. BETWEEN

2. LIKE

3. IN

4. DIFFERENCE

Question Number : 167 Question Id : 67809438623 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If A-> B holds, then AC->BC holds, this axiom is _____.

Options :

1. Transitivity rule

2. Reflexivity rule

3. Augmentation rule

4. Union rule

Question Number : 168 Question Id : 67809438624 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Fifth Normal Form is based on the concept of _____.

Options :

1. Functional dependency

2. Transitive dependency

3. Multi valued dependency

4. Join dependency

Question Number : 169 Question Id : 67809438625 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Data type(s) supported by PL/SQL:

Options :

1. Scalar data type only

2. Complex data type only

3. Both Scalar & Complex data types

4. Neither Scalar nor Complex data types

Question Number : 170 Question Id : 67809438626 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Life cycle of typical cursor involves the following 5 steps in SQL Server.

Options :

1. Declare Cursor, Open, fetch, Close and Deallocate

2. Create Cursor, Open, fetch, Close and Deallocate

3. Declare Cursor, Create, fetch, Close and Deallocate

4. Declare Cursor, Open, Create, fetch and Close

Question Number : 171 Question Id : 67809438627 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Reuse of an existing class can be done by using _____.

Options :

1. Inheritance

2. Polymorphism

3. Abstraction

4. Data Binding

Question Number : 172 Question Id : 67809438628 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The manipulator <<endl has the effect of printing a ___ character.

Options :

1. '\n'

2. '\t'

3. '\b'

4. '\v'

Question Number : 173 Question Id : 67809438629 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

When delete is used to deallocate memory for a C++ class object, the object's

_____ is called before the object's memory is deallocated.

Options :

1. Destructor

2. Constructor

3. Base class

4. Child classes

Question Number : 174 Question Id : 67809438630 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The loop statement terminated by a semicolon is _____.

Options :

1. for

2. while

3. do-while

4. switch

Question Number : 175 Question Id : 67809438631 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Using parentheses() with _____ statement in C++ programming is optional.

Options :

1. exit

2. main

3. clrscr

4. return

Question Number : 176 Question Id : 67809438632 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are true:

A. Overloading operators are only for classes
B. Overloaded operators have different syntax from the original operator
C. Only existing operators can be overloaded

Options :

1. A & B

2. B & C

3. A & C

4. A, B & C

Question Number : 177 Question Id : 67809438633 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

When a class is not used for creating objects, it is called as _____ class.

Options :

1. Virtual
2. Base
3. Abstract
4. Friend

Question Number : 178 Question Id : 67809438634 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The name of the array is itself a _____.

Options :

1. Object
2. Pointer
3. Variable
4. Reference

Question Number : 179 Question Id : 67809438635 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The function that shifts the associated file's input file pointer is _____.

Options :

1. seekp()
2. seekg()
3. tellp()
4. tellg()

Question Number : 180 Question Id : 67809438636 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The derived class without pure virtual function is called as _____.

Options :

1. Abstract class

2. Pure derived class

3. Container class

4. Concrete class

Question Number : 181 Question Id : 67809438637 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ is a small program that is dynamically downloaded over the web.

Options :

1. Applet

2. Dynamic Program

3. Code chef

4. Snippet

Question Number : 182 Question Id : 67809438638 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What will be the result of the following Java expression?

4*2-5>4&&3<5-3

Options :

1. FALSE

2. TRUE

3. 0

4. 1

Question Number : 183 Question Id : 67809438639 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following creates an object called ob of MyClass?

Options :

1. MyClass ob = new MyClass;

2. MyClass ob = new MyClass();

3. MyClass ob = MyClass;

4. MyClass ob = MyClass();

Question Number : 184 Question Id : 67809438640 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ class has access to the other members of its enclosing class.

Options :

1. Nested

2. Static

3. Inner

4. Friend

Question Number : 185 Question Id : 67809438641 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ keyword is used to prevent a class from being inherited.

Options :

1. Super

2. Final

3. Constant

4. Interface

Question Number : 186 Question Id : 67809438642 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

At the top of Java API Package hierarchy is _____.

Options :

1. Java

2. Object

3. Awt

4. Util

Question Number : 187 Question Id : 67809438643 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In Java, all exceptions are derived from the class _____.

Options :

1. Exception

2. Error

3. Runtime Exception

4. Throwable

Question Number : 188 Question Id : 67809438644 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The method that makes the new thread running is _____.

Options :

1. start()

2. run()

3. yield()

4. notify()

Question Number : 189 Question Id : 67809438645 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

To show a banner scrolled in an applet, the method used is _____.

Options :

1. init()

2. paint()

3. repaint()

4. println()

Question Number : 190 Question Id : 67809438646 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Garbage collection in Java is done

Options :

1. only manually by user
2. Automatically by java runtime
3. Both manually and automatically
4. Neither manually nor automatically

Question Number : 191 Question Id : 67809438647 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ element contain meta information about the document.

Options :

1. <head>
2. <html>
3. <!Doctype html>
4. <title>

Question Number : 192 Question Id : 67809438648 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ style sheet is used to define the style of many HTML pages.

Options :

1. Inline
2. Internal
3. External
4. None of the above

Question Number : 193 Question Id : 67809438649 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Identify the type of error in the following Php code:

```
<?php

Function sum()

{

...;

}

Sum1();

?>
```

Options :

1. Parser error
2. notice error
3. Warning error
4. Fatal error

Question Number : 194 Question Id : 67809438650 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The output of the following code snippet is _____.

```
<? Php

$str="welcome";

Echo substr($str,3,4);

?>
```

Options :

1. lcom
2. come
3. lc
4. co

Question Number : 195 Question Id : 67809438651 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which of the following statements is true?

A. Sessions are secure

B. Cookies store large amount of data

C. Sessions store information in client machine

Options :

1. A only

2. B only

3. C only

4. A & B only

Question Number : 196 Question Id : 67809438652 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

```
<? Php

$a = array(10,20,30);

Echo implode('@',$a);

?>
```

The output of the above program is _____.

Options :

1. 10@20@30

2. @10

3. 10@

4. 10 20 30

Question Number : 197 Question Id : 67809438653 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Which among the following data providers is not supported by ADO.NET?

Options :

1. ODBC

2. MySQL Server

3. MyAccess

4. OLEDB

Question Number : 198 Question Id : 67809438654 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ serve as a bridge between a Dataset and Data Source for retrieving stored data.

Options :

1. Data manipulator

2. Data adapter

3. Dataset Object

4. Data Reader

Question Number : 199 Question Id : 67809438655 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ is a collection of DataColumn, DataRows and Constraints.

Options :

1. Dataset

2. Data Relations

3. Data Table

4. Data Adapter

Question Number : 200 Question Id : 67809438656 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

_____ method copy the structure of Dataset.

Options :

1. AcceptChanges()

2. Clone()

3. Copy()

4. HasChanges()