

Andhra Pradesh State Council of Higher Education

Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	Agricultural Engineering 23rd Apr 2026 Shift 1
Subject Name :	Agricultural Engineering
Creation Date :	2026-04-23 15:16:20
Duration :	180
Total Marks :	200
Display Marks:	No
Change Font Color :	No
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Agricultural Engineering

Group Number :	1
Group Id :	77951852
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	200

Mathematics

Section Id :	779518202
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory

Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	50
Section Negative Marks :	0
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	779518214
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 77951810207 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In the matrix $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 4 & 9 \end{bmatrix}$, the minor M_{23} of the a_{23} is

Options :

1. ✘ 10

2. ✔ -10

3. ✘ -6

4. ✘ 6

Question Number : 2 Question Id : 77951810208 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\begin{vmatrix} 2x & 5 \\ 8 & x \end{vmatrix} = \begin{vmatrix} 6 & -2 \\ 7 & 3 \end{vmatrix}$ then the value of x is

Options :

1. ✘ 3

2. ✔ ± 6

3. ✘ -3

4. ✘ ± 2

Question Number : 3 Question Id : 77951810209 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If A is a square matrix of order 3 and $|A| = 5$, then the value of $|2A^T|$ is

Options :

1. ✘ -10

2. ✘ 10

3. ✔ 40

4. ✘ -40

Question Number : 4 Question Id : 77951810210 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which of the following systems has non trivial solution ?

Options :

1. ✘ $AX = 0, |A| = 4$

2. ✘ $AX = 0, |A| = -4$

3. ✔ $AX = 0, |A| = 0$

4. ✘ $AX = B, |B| = 5$

Question Number : 5 Question Id : 77951810211 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\begin{bmatrix} x+y & 2 \\ 1 & x-y \end{bmatrix} = \begin{bmatrix} 4 & 2 \\ 1 & 2 \end{bmatrix}$, then the values of x and y are:

Options :

1. ✓ $x = 3, y = 1$
2. ✗ $x = 1, y = 3$
3. ✗ $x = 2, y = 3$
4. ✗ $x = 1, y = 1$

Question Number : 6 Question Id : 77951810212 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\frac{x+4}{(x+2)^2(x+3)} = \frac{A}{(x+2)^2} + \frac{B}{(x+2)} + \frac{C}{(x+3)}$ then $A + B + C =$

Options :

1. ✓ 2
2. ✗ 1
3. ✗ -1
4. ✗ 3

Question Number : 7 Question Id : 77951810213 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\frac{x}{(x-1)^2(x+2)} = \frac{A}{(x-1)^2} + \frac{2}{9(x-1)} + \frac{B}{(x+2)}$ then $A + B =$

Options :

1. ✗ $1/3$
2. ✓

1/9

3. ✘ $-1/3$

4. ✘ $2/3$

Question Number : 8 Question Id : 77951810214 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\tan A = \frac{1}{2}$ and $\tan B = \frac{1}{3}$, then $A + B =$

Options :

1. ✘ 30°

2. ✔ 45°

3. ✘ 60°

4. ✘ 90°

Question Number : 9 Question Id : 77951810215 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $2\sin^{-1}x = \sin^{-1}k$ then $k =$

Options :

1. ✔ $2x\sqrt{1-x^2}$

2. ✘ $2x$

3. ✘ x^2

4. ✘ $1 - 2x^2$

Question Number : 10 Question Id : 77951810216 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\sin^{-1}\frac{5}{x} + \sin^{-1}\frac{12}{x} = \frac{\pi}{2}$, then $x =$

Options :

1. ✘ 12

2. ✘ 7

3. ✔ 13

4. ✘ 15

Question Number : 11 Question Id : 77951810217 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The number of solutions of the equation $\sin 2x - \cos 2x = 2 - \sin 2x$ lying in the interval $[0, \pi]$ is

Options :

1. ✘ 0

2. ✘ 1

3. ✔ 2

4. ✘ 3

Question Number : 12 Question Id : 77951810218 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\tan \theta + \sec \theta = \sqrt{3}$ then the principal value of θ in $[0, 2\pi]$ is

Options :

1. ✘ $\pi/4$

2. ✓ $\pi/6$

3. ✗ $\pi/2$

4. ✗ $2\pi/3$

Question Number : 13 Question Id : 77951810219 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\frac{\tan x - 1 + \sec x}{\tan x - \sec x + 1} =$$

Options :

1. ✗ $\frac{1 - \sin x}{\cos x}$

2. ✓ $\frac{1 + \sin x}{\cos x}$

3. ✗ $\frac{1 + \cos x}{\sin x}$

4. ✗ $\frac{1 - \cos x}{\sin x}$

Question Number : 14 Question Id : 77951810220 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\tan 9^\circ - \tan 27^\circ - \tan 63^\circ + \tan 81^\circ =$$

Options :

1. ✗ 2

2. ✗ 1

3. ✓ 4

4. ✘ 3

Question Number : 15 Question Id : 77951810221 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\cos \theta = \frac{1}{2} \left(a + \frac{1}{a} \right)$, then $4\cos^3 \theta - 3\cos \theta =$

Options :

1. ✘ $a^3 + \frac{1}{a^3}$

2. ✔ $\frac{1}{2} \left(a^3 + \frac{1}{a^3} \right)$

3. ✘ $\frac{1}{4} \left(a^3 + \frac{1}{a^3} \right)$

4. ✘ $\frac{1}{3} \left(a^3 + \frac{1}{a^3} \right)$

Question Number : 16 Question Id : 77951810222 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$\cos 6^\circ \sin 24^\circ \cos 72^\circ =$

Options :

1. ✘ $1/4$

2. ✘ $-1/8$

3. ✘ $-1/4$

4. ✔ $1/8$

Question Number : 17 Question Id : 77951810223 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\tan^{-1}1 + \tan^{-1}2 + \tan^{-1}3 =$$

Options :

1. ✘ $3\pi/4$

2. ✘ $\pi/2$

3. ✔ π

4. ✘ 2π

Question Number : 18 Question Id : 77951810224 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\text{If } z_1 = 4i^{40} - 5i^{35} + 6i^{17} + 2, z_2 = -1 + i \text{ then } |z_1 + z_2| =$$

Options :

1. ✔ 13

2. ✘ 5

3. ✘ 15

4. ✘ 12

Question Number : 19 Question Id : 77951810225 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The conjugate of $(1 + i)^3$ is

Options :

1. ✘ $1 + 2i$

2. ✘ $-2 + 2i$

3. ✓ $-2 - 2i$

4. ✗ $1 - 2i$

**Question Number : 20 Question Id : 77951810226 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The equation of a circle whose Centre is $(-3, 2)$ and area is 176 units is

Options :

1. ✗ $x^2 + y^2 + 6x - 4y - 36 = 0$

2. ✓ $x^2 + y^2 + 6x - 4y - 43 = 0$

3. ✗ $x^2 + y^2 - 6x + 4y - 36 = 0$

4. ✗ $x^2 + y^2 - 6x + 4y - 43 = 0$

**Question Number : 21 Question Id : 77951810227 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The equation of a circle whose Centre is $(2, -1)$ and which passes through the point $(3,6)$ is

Options :

1. ✗ $x^2 + y^2 + 4x + 2y - 45 = 0$

2. ✗ $x^2 + y^2 - 2x + 2y - 50 = 0$

3. ✗ $x^2 + y^2 + 2x + 2y - 50 = 0$

4. ✓ $x^2 + y^2 - 4x + 2y - 45 = 0$

Question Number : 22 Question Id : 77951810228 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If the parabola $y^2 = 4ax$ passes through the point (3, 2) then the length of its latus rectum is:

Options :

1. ✓ $4/3$

2. ✗ 4

3. ✗ $2/3$

4. ✗ $1/3$

Question Number : 23 Question Id : 77951810229 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The line $y = mx + 2$ is a tangent to the parabola $y^2 = 8x$ if

Options :

1. ✓ $m = 1$

2. ✗ $m = 2$

3. ✗ $m = 3$

4. ✗ $m = 4$

Question Number : 24 Question Id : 77951810230 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The length of the latusrectum and eccentricity of the Hyperbola $9x^2 - 16y^2 = 144$ are

Options :

1. ✘ $\left(\frac{9}{4}, \frac{5}{4}\right)$

2. ✔ $\left(\frac{9}{2}, \frac{5}{4}\right)$

3. ✘ $\left(\frac{9}{2}, \frac{5}{2}\right)$

4. ✘ $\left(9, \frac{5}{2}\right)$

Question Number : 25 Question Id : 77951810231 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The equation of the ellipse with foci at $(\pm 3, 0)$ and the eccentricity as $1/3$ is :

Options :

1. ✔ $\frac{x^2}{81} + \frac{y^2}{72} = 1$

2. ✘ $\frac{x^2}{9} + \frac{y^2}{8} = 1$

3. ✘ $\frac{x^2}{8} + \frac{y^2}{9} = 1$

4. ✘ $\frac{x^2}{3} + \frac{y^2}{2} = 1$

Question Number : 26 Question Id : 77951810232 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

$$\lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x =$$

Options :

1. ✘ 0

2. ✘ 1

3. ✔ e

4. ✘ ∞

Question Number : 27 Question Id : 77951810233 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\lim_{x \rightarrow 0} \frac{\sqrt{1+x} - 1}{x} =$$

Options :

1. ✘ 0

2. ✔ $1/2$

3. ✘ 1

4. ✘ ∞

Question Number : 28 Question Id : 77951810234 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\text{If } y = \frac{(a \cos x + b \sin x + C)}{\sin x} \text{ then } \frac{dy}{dx} =$$

Options :

1. ✔ $-a \operatorname{cosec}^2 x - c \operatorname{cosec} x \cot x$

2. ✘ $-a$

3. ✘ $-a \operatorname{cosec}^2 x + b \sec^2 x + c \operatorname{cosec} x \cot x$

4. ✘ $a \operatorname{cosec}^2 x - c \operatorname{cosec} x \cot x$

Question Number : 29 Question Id : 77951810235 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $y = \sqrt{x + \sqrt{x + \sqrt{x + \dots \infty}}}$ then $\frac{dy}{dx} =$

Options :

1. ✘ $\frac{1}{2y}$

2. ✘ $\frac{1}{1-2y}$

3. ✘ $\frac{1}{2(1-2y)}$

4. ✔ $\frac{-1}{1-2y}$

Question Number : 30 Question Id : 77951810236 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Slope of the tangent to the curve $y = 9x^2 + 7x^4 + 5$ at the point $x = 1$ is

Options :

1. ✘ 28

2. ✘ 16

3. ✔ 46

4. ✘ $\frac{1}{46}$

Question Number : 31 Question Id : 77951810237 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\text{If } f(x) = \begin{cases} 4(5^x) & x < 0 \\ 8k + x & x \geq 0 \end{cases} \quad \text{then } f'(-1) =$$

Options :

1. ✘ $\frac{2}{5} \log 5$

2. ✔ $\frac{4}{5} \log 5$

3. ✘ $\frac{3}{5} \log 5$

4. ✘ $20 \log 5$

Question Number : 32 Question Id : 77951810238 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\text{If } 2^x + 2^y = 2^{x+y}, \text{ then } \frac{dy}{dx} =$$

Options :

1. ✔ $1 - 2^y$

2. ✘ $1 - \frac{1}{2^y}$

3. ✘ $1 + 2^{-y}$

4. ✘ $1 + 2^y$

Question Number : 33 Question Id : 77951810239 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\text{If } y + \sin^{-1}(1 - x^2) = e^x, \text{ then } \frac{dy}{dx} =$$

Options :

1. ✘ $e^x - \frac{2}{\sqrt{2-x^2}}$

2. ✘ $e^x - \frac{2}{\sqrt{2+x^2}}$

3. ✔ $e^x + \frac{2}{\sqrt{2-x^2}}$

4. ✘ $e^x + \frac{2}{\sqrt{2+x^2}}$

Question Number : 34 Question Id : 77951810240 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $y(x) = x^x$, $x > 0$, then $y''(2) - 2y'(2) =$

Options :

1. ✘ $4 \log_e 2 - 2$

2. ✘ $4 \log_e 2 + 2$

3. ✘ $4 (\log_e 2)^2 + 2$

4. ✔ $4 (\log_e 2)^2 - 2$

Question Number : 35 Question Id : 77951810241 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $z = x^2y^3 + e^y \sin x$, then $\frac{\partial^2 z}{\partial x \partial y} =$

Options :

1. ✔ $6xy^2 + e^y \cos x$

2. ✘ $3x^2y^2 + e^y \sin x$

3. ✘ $3x^2y^2 + e^y \cos x$

4. ✘ $6xy^2 + e^y \sin x$

Question Number : 36 Question Id : 77951810242 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int \frac{dx}{\sin^2 x \cos^2 x} =$$

Options :

1. ✘ $\tan x + \cot x + c$

2. ✔ $\tan x - \cot x + c$

3. ✘ $\tan x \cot x + c$

4. ✘ $\tan x + \sec x + c$

Question Number : 37 Question Id : 77951810243 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int \frac{dx}{\sqrt{x+1} + \sqrt{x}} =$$

Options :

1. ✔ $\frac{2}{3} [(x+1)^{\frac{3}{2}} - (x)^{\frac{3}{2}}] + c$

2. ✘ $\frac{2}{3} [(x+1)^{\frac{3}{2}} + (x)^{\frac{3}{2}}] + c$

3. ✘ $\frac{3}{2} [(x+1)^{\frac{3}{2}} - (x)^{\frac{3}{2}}] + c$

4. ✘ $\frac{3}{2}[(x+1)^{\frac{3}{2}} + (x)^{\frac{3}{2}}] + c$

Question Number : 38 Question Id : 77951810244 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $\int \frac{\sin^3 x + \cos^3 x}{\sin^2 x \cos^2 x} dx = A \sec x + B \operatorname{cosec} x + c$, then (A, B) are

Options :

1. ✘ (1, 1)

2. ✘ (-1, -1)

3. ✔ (1, -1)

4. ✘ (-1, 1)

Question Number : 39 Question Id : 77951810245 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The integral of $f(x) = 1 + x^2 + x^4$ with respect to x^2 is

Options :

1. ✘ $x + \frac{x^3}{3} + \frac{x^5}{5} + C$

2. ✘ $\frac{x^3}{3} + \frac{x^5}{5} + C$

3. ✘ $x^2 + \frac{x^4}{4} + \frac{x^6}{6} + C$

4. ✔ $x^2 + \frac{x^4}{2} + \frac{x^6}{3} + C$

Question Number : 40 Question Id : 77951810246 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int_0^{\frac{\pi}{2}} \frac{\sin^{100}x}{\sin^{100}x + \cos^{100}x} dx =$$

Options :

1. ✘ $\pi/2$

2. ✔ $\pi/4$

3. ✘ 100

4. ✘ 50

Question Number : 41 Question Id : 77951810247 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int_0^1 x \sqrt{x^2 + 4} dx =$$

Options :

1. ✘ $\frac{1}{3}[5\sqrt{5} - 4]$

2. ✘ $\frac{1}{2}[5\sqrt{5} - 8]$

3. ✔ $\frac{1}{3}[5\sqrt{5} - 8]$

4. ✘ $\frac{1}{3}[5\sqrt{5} + 4]$

Question Number : 42 Question Id : 77951810248 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int_{-\pi/6}^{\pi/6} \frac{\sin^5x \cos^3x}{x^4} dx =$$

Options :

1. ✘ $\pi/2$

2. ✘ $\pi/4$

3. ✔ 0

4. ✘ 1

Question Number : 43 Question Id : 77951810249 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

$$\int \frac{dx}{\sqrt{16 - 25x^2}} =$$

Options :

1. ✔ $\frac{1}{5} \sin^{-1} \left(\frac{5x}{4} \right) + c$

2. ✘ $\sin^{-1} \left(\frac{5x}{4} \right) + c$

3. ✘ $\frac{1}{5} \sin^{-1} \left(\frac{x}{4} \right) + c$

4. ✘ $\frac{1}{5} \sin^{-1} \left(\frac{4x}{5} \right) + c$

Question Number : 44 Question Id : 77951810250 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The solution of the differential equation $x \frac{dy}{dx} + y = 0$ passing through the point (1,1) is y =

Options :

1. ✘ x^2

2. ✔ x^{-1}

3. ✘ x^{-2}

4. ✘ x

Question Number : 45 Question Id : 77951810251 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

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

Options :

1. ✘ 4

2. ✘ 3

3. ✔ 2

4. ✘ 1

Question Number : 46 Question Id : 77951810252 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The order of the differential equation of all circles passing through the origin and having their centers on the x – axis is

Options :

1. ✘ 4

2. ✘ 3

3. ✘ 2

4. ✔ 1

Question Number : 47 Question Id : 77951810253 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If a and b are arbitrary constants, then the differential equation representing the family of curves $y = a \sin(x + b)$ is

Options :

1. ✘ $\frac{d^2y}{dx^2} - y = 0$

2. ✔ $\frac{d^2y}{dx^2} + y = 0$

3. ✘ $\frac{d^2y}{dx^2} - y^2 = 0$

4. ✘ $\frac{dy}{dx} - y = 0$

Question Number : 48 Question Id : 77951810254 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The differential equation is $\frac{dy}{dx} + \frac{y}{x} = 0$ and $y(1) = 2$. Then the value of $y(3) =$

Options :

1. ✘ 2

2. ✘ 3

3. ✔ $\frac{2}{3}$

4. ✘ 1

Question Number : 49 Question Id : 77951810255 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

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

Options :

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

2. ✔ $e^y = e^x + \frac{x^3}{3} + c$

3. ✘ $e^y = e^x + x^3 + c$

4. ✘ $e^y = e^x + c$

Question Number : 50 Question Id : 77951810256 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The differential equation is $\frac{dy}{dx} + y \tan x = \sec x$ and $y(0) = 1$. Then the value of $y\left(\frac{\pi}{4}\right) =$

Options :

1. ✘ 0

2. ✔ $\sqrt{2}$

3. ✘ 1

4. ✘ -1

Section Id :	779518203
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	25
Number of Questions to be attempted :	25
Section Marks :	25
Section Negative Marks :	0
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	779518215
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 77951810257 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If $P = F \cdot v \sin \beta t$ where F is force and v is velocity then the dimensions of P and β are

Options :

1. ✓ $ML^2 T^{-3}, T^{-1}$

2. ✗ $ML T^{-2}, T^{-2}$

3. ✗ $ML^2 T^{-1}, T^{-1}$

4. ✗ $ML^2 T^3, T^{-2}$

Question Number : 52 Question Id : 77951810258 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If velocity V , energy E and time T are chosen as fundamental quantities then dimensional representation of surface tension in this system will be

Options :

1. ✓ $E^1 V^{-2} T^{-2}$

2. ✗ $E^1 V^{-1} T^{-2}$

3. ✘ $E^{-2} V^{-1} T^{-3}$

4. ✘ $E^1 V^{-2} T^{-1}$

Question Number : 53 Question Id : 77951810259 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

If $|\mathbf{A} + \mathbf{B}| = |\mathbf{A} - \mathbf{B}|$, then the angle between the two vectors \mathbf{A} and \mathbf{B} is

Options :

1. ✘ 0°

2. ✘ 180°

3. ✘ 120°

4. ✔ 90°

Question Number : 54 Question Id : 77951810260 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

An aeroplane is moving in a circular path with a speed of 450 Kmph. What is the change in velocity in half revolution?

Options :

1. ✘ 0 Kmph

2. ✘ 450 Kmph

3. ✘ 250 Kmph

4. ✔ 900 Kmph

Question Number : 55 Question Id : 77951810261 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The ratio between maximum and minimum values of two vectors \vec{A} and \vec{B} ($\vec{A} > \vec{B}$) is 1:4. Then the ratio between the magnitudes of two vectors is

Options :

1. ✘ 3:2
2. ✔ 5:3
3. ✘ 2:3
4. ✘ 3:5

**Question Number : 56 Question Id : 77951810262 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The magnitudes of three vectors \vec{A} , \vec{B} and \vec{C} are 12, 5 and 13 units respectively and $\vec{A} + \vec{B} = \vec{C}$. The angle between \vec{A} and \vec{B} is

Options :

1. ✘ 0°
2. ✘ 120°
3. ✔ 90°
4. ✘ 45°

**Question Number : 57 Question Id : 77951810263 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

A body falling from height 'H' takes time 'T' seconds to reach the ground. The time taken to cover the second half of height is

Options :

1. ✘ $\frac{T}{\sqrt{2}}$

2. ✘ $\sqrt{2} T$

3. ✔ $\left(\frac{\sqrt{2}-1}{\sqrt{2}}\right) T$

4. ✘ $\left(\frac{1}{\sqrt{2}-1}\right) T$

Question Number : 58 Question Id : 77951810264 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

With what speed a body be thrown upwards so that the distances covered in the 5th second and 6th second are equal?

Options :

1. ✘ 75 m/s

2. ✘ $\sqrt{98}$ m/s

3. ✔ 49 m/s

4. ✘ 19.8 m/s

Question Number : 59 Question Id : 77951810265 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A body of mass 1 kg starts moving from rest under the action of a force which varies with

displacement as $F = 2x + 5$ (in newtons). The work done by this force to displace the body from $x = 0$ to $x = 2$ m is:

Options :

1. ✘ 8 J

2. ✘ 10 J

3. ✘

12 J

4. ✓ 14 J

Question Number : 60 Question Id : 77951810266 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The potential energy of a particle is given by $U(x) = 20 + (x - 2)^2$, where U is in joules and x in meters. The minimum potential energy and the position where it occurs are:

Options :

1. ✓ 20 J at $x = 2$

2. ✗ 2 J at $x = 20$ m

3. ✗ 22 J at $x = 2$ m

4. ✗ 0 J at $x = 2$ m

Question Number : 61 Question Id : 77951810267 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Power supplied to a particle of mass 2 kg varies with time as $P = 3t^2/2$ watt, where t is in seconds. If velocity at $t = 0$ is zero, the velocity at $t = 2$ s is:

Options :

1. ✗ 1 m/s

2. ✓ 2 m/s

3. ✗ $\sqrt{2}$ m/s

4. ✗

4 m/s

Question Number : 62 Question Id : 77951810268 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A pump is used to deliver water at a certain rate from a given pipe. To obtain twice the volume of water from the same pipe in the same time, by what factor must the power of the motor pump be increased? (Assume ideal conditions, $g = 10 \text{ ms}^{-2}$)

Options :

1. ✘ 4

2. ✔ 8

3. ✘ 16

4. ✘ 32

Question Number : 63 Question Id : 77951810269 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Two identical piano wires, when tuned to a fundamental frequency of 400 Hz, produce no beats. One wire is then slightly tightened, and the beat frequency heard is 2 Hz. What is the new fundamental frequency of the tightened wire?

Options :

1. ✘ 398 Hz

2. ✔ 402 Hz

3. ✘ 404 Hz

4. ✘ 396 Hz

Question Number : 64 Question Id : 77951810270 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A source of sound of frequency 500Hz is moving towards an observer with velocity 30m/s. The speed of sound is 330m/s. The frequency heard by the observer will be:

Options :

1. ✘ 450 Hz

2. ✔ 550 Hz

3. ✘ 600 Hz

4. ✘ 500 Hz

Question Number : 65 Question Id : 77951810271 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In Acoustics, 'Noise' is generally characterized by:

Options :

1. ✔ Irregular and non-periodic vibrations.

2. ✘ A constant pitch and frequency

3. ✘ Vibrations that follow a harmonic series

4. ✘ Regular and periodic vibrations

Question Number : 66 Question Id : 77951810272 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If the volume of a room is doubled and the total absorption is halved, the reverberation time will:

Options :

1. ✘ Remain unchanged
2. ✘ Be doubled
3. ✔ Become four times
4. ✘ Be halved

Question Number : 67 Question Id : 77951810273 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

. In a closed hall of volume 5000 m^3 , the total absorption of the interior surfaces is 200 metric sabin . The reverberation time is:

Options :

1. ✘ 1 s
2. ✘ 2 s
3. ✘ 3 s
4. ✔ 4 s

Question Number : 68 Question Id : 77951810274 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In an Isothermal process

Options :

1. ✘ Internal energy of the system never remains constant
2. ✘ Total heat energy of the system remains constant

3. ✘ Volume of the system remains constant
4. ✔ Temperature of the system remains constant

Question Number : 69 Question Id : 77951810275 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

If the pressure of an ideal gas is doubled and its absolute temperature is halved; the volume will become:

Options :

1. ✔ 1/4 of initial volume
2. ✘ 1/2 initial volume
3. ✘ Same as initial volume
4. ✘ 2 times of initial volume

Question Number : 70 Question Id : 77951810276 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

At constant temperature, the product PV is plotted against pressure P for an ideal gas. The graph obtained is:

Options :

1. ✔ Straight line parallel to P-axis
2. ✘ Straight line with positive slope
3. ✘ Straight line through origin
4. ✘ Parabola

Question Number : 71 Question Id : 77951810277 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A bubble of an ideal gas rises from the bottom of a lake to the surface. At the bottom, the pressure is 3 Atm. and the temperature is 7 °C. At the surface, the pressure is 1 atm. and the temperature is 27°C. If the initial volume of the bubble was V_0 what is its volume V_f at the surface?

Options :

1. ✘ $3 V_0$

2. ✔ $3.21 V_0$

3. ✘ $0.9 V_0$

4. ✘ $5.4 V_0$

Question Number : 72 Question Id : 77951810278 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The R.M.S. speed of oxygen molecules at 27°C is v . At 927°C, the rms speed will be:

Options :

1. ✘ v

2. ✘ $v/2$

3. ✔ $2v$

4. ✘ $4v$

Question Number : 73 Question Id : 77951810279 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In a photoelectric experiment, the stopping potential for incident light of wavelength 4000 \AA is 2 V .

If the wavelength is changed to 3000 \AA , the new stopping potential will be approximately:

(Use $h = 4.14 \times 10^{-15} \text{ eV} \cdot \text{s}$, $c = 3 \times 10^8 \text{ m/s}$)

Options :

1. ✘ 2 V

2. ✔ 3.03 V

3. ✘ 4.14 V

4. ✘ 1.5 V

Question Number : 74 Question Id : 77951810280 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In Optical Fiber communication, the signal is transmitted in the form of:

Options :

1. ✘ Electrical pulses

2. ✔ Light pulses

3. ✘ Radio waves

4. ✘ Sound waves

Question Number : 75 Question Id : 77951810281 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In a superconducting ring, a persistent current has been flowing without decay for years. This is possible because:

Options :

1. ✔ Resistance is exactly zero and flux is quantized

2. ✘ Resistance is very small but finite
3. ✘ The ring is at absolute zero temperature
4. ✘ Magnetic field lines are expelled

Chemistry

Section Id :	779518204
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	25
Number of Questions to be attempted :	25
Section Marks :	25
Section Negative Marks :	0
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	779518216
Question Shuffling Allowed :	Yes

Question Number : 76 Question Id : 77951810282 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The pair of orbitals with electron density maximum along the axes is

Options :

1. ✘ d_{xy}, d_{yz}
2. ✔ $d_z^2, d_{x^2-y^2}$
3. ✘ d_{xz}, d_z^2
4. ✘

d_{xz}, P_z

Question Number : 77 Question Id : 77951810283 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The angular momentum of an electron in an orbit X of hydrogen atom is $\frac{2h}{\pi}$.

Maximum number of orbitals possible in X is

Options :

1. ✘ 4

2. ✘ 9

3. ✔ 16

4. ✘ 25

Question Number : 78 Question Id : 77951810284 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The four quantum numbers for the electron in the outermost orbital of potassium ($Z=19$) are

Options :

1. ✘ $n=4, l=2, m=-1, s=+1/2$

2. ✔ $n=4, l=0, m=0, s=+1/2$

3. ✘ $n=3, l=0, m=1, s=+1/2$

4. ✘ $n=4, l=3, m=-2, s=-1/2$

Question Number : 79 Question Id : 77951810285 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In which of the following, the number of bonding electrons and non-bonding electrons are in 3:2 ratio?

Options :

1. ✓ N_2

2. ✗ O_2

3. ✗ HCl

4. ✗ F_2

Question Number : 80 Question Id : 77951810286 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which one of the following statements is not correct?

Options :

1. ✗ Ionic bond is non directional bond

2. ✗ The maximum number of bond pairs between two atoms is 3

3. ✓ Covalent compounds conduct electricity in fused state

4. ✗ Ionic compounds are generally soluble in water

Question Number : 81 Question Id : 77951810287 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

12.6 g of oxalic acid, $H_2C_2O_4 \cdot 2H_2O$ (M.wt 126) is present in 1500 mL of solution. The normality of that solution is

Options :

1. ✘ 0.266 N

2. ✔ 0.133 N

3. ✘ 0.399 N

4. ✘ 0.430 N

Question Number : 82 Question Id : 77951810288 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which of the following has highest equivalent weight?

(Given: At.wt H=1, C=12, O=16, S=32, Na=23, Ca=40)

Options :

1. ✘ Sulphuric acid

2. ✘ Sodium carbonate

3. ✔ Sodium sulphate

4. ✘ Calcium carbonate

Question Number : 83 Question Id : 77951810289 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Identify the pair of gases which have same number of molecules at S.T.P ?

Options :

1. ✘ 11 g of CO₂ and 14 g of N₂

2. ✘ 16 g of O₃ and 16 g of CH₄

3. ✓ 5 g of H₂ and 40 g of CH₄

4. ✗ 28 g of N₂ and 22 g of CO₂

Question Number : 84 Question Id : 77951810290 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

100 mL of 0.1M HCl and 100 mL of 0.05 M H₂SO₄ are mixed and the solution is diluted to 2.0 L by adding water. The pH of the resulting solution is

Options :

1. ✗ 1

2. ✗ 3

3. ✓ 2

4. ✗ 4

Question Number : 85 Question Id : 77951810291 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

According to Arrhenius theory of acids and bases, which of the following is an example of Arrhenius base?

Options :

1. ✗ H₂SO₄

2. ✗ NH₃

3. ✓ NaOH

4. ✗ CaO

Question Number : 86 Question Id : 77951810292 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Electrolysis of an aqueous solution of Na_2SO_4 between Pt electrodes liberate a gas X at anode and gas Y at cathode. X and Y respectively are

Options :

1. ✘ H_2, O_2
2. ✔ O_2, H_2
3. ✘ SO_2, H_2
4. ✘ H_2, SO_2

Question Number : 87 Question Id : 77951810293 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The wrong statement regarding Galvanic cell is

Options :

1. ✘ In this spontaneous redox reaction occurs
2. ✘ Salt bridge maintains electrical neutrality between the two solutions
3. ✔ Anode is represented by (+) and cathode by (-)
4. ✘ At anode oxidation occurs

Question Number : 88 Question Id : 77951810294 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which of the following is a weak electrolyte?

Options :

1. ✓ H_2CO_3

2. ✗ H_2SO_4

3. ✗ NaCl

4. ✗ NaOH

Question Number : 89 Question Id : 77951810295 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The exhausted anion-exchange resin is regenerated with

Options :

1. ✓ dilute NaOH solution

2. ✗ dilute NaCl solution

3. ✗ dilute HCl solution

4. ✗ dilute Na_2SO_4 solution

Question Number : 90 Question Id : 77951810296 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

A sample of water is known to contain $\text{Mg}(\text{HCO}_3)_2 = 7.3 \text{ mg/L}$, $\text{Ca}(\text{HCO}_3)_2 = 8.1 \text{ mg/L}$ and 27.2 mg/L of CaSO_4 .

The total hardness associated with water sample (in ppm) in equivalents of CaCO_3 is

(At.wt H=1, C=12, O=16, Mg = 24, Ca=40, S=32)

Options :

1. ✗ 20

2. ✗

3. ✓ 30

4. ✗ 40

Question Number : 91 Question Id : 77951810297 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The type of functional group associated with cation exchange resin is

Options :

1. ✗ - OH

2. ✓ - SO₃H

3. ✗ - NH₂

4. ✗ - CHO

Question Number : 92 Question Id : 77951810298 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Identify the incorrect statement about the corrosion

Options :

1. ✗ In the composition type of galvanic cell, metal with lower standard reduction potential undergoes corrosion

2. ✗ In stress cell type of galvanic cell, corrosion occurs at the stressed area of the metal

3. ✓ The rate of corrosion is more, when the area of cathode is smaller

In concentration cell type of galvanic cell, the metal below the water level undergoes corrosion readily

4. ✘

Question Number : 93 Question Id : 77951810299 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In galvanised iron

Options :

1. ✔ Zn acts as anode and Fe acts as cathode

1. ✔

2. ✘ Zn acts as cathode and Fe acts as anode

2. ✘

3. ✘ Sn acts as anode and Fe acts as cathode

3. ✘

4. ✘ Sn acts as cathode and Fe acts as anode

4. ✘

Question Number : 94 Question Id : 77951810300 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

During Vulcanization of raw rubber, the chemical added to it is

Options :

1. ✔ Sulphur

1. ✔

2. ✘ Phosphorus

2. ✘

3. ✘ Iodine

3. ✘

4. ✘ Sodium

4. ✘

Question Number : 95 Question Id : 77951810301 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which of the following is a natural polymer?

Options :

1. ✓ Cellulose

2. ✗ Teflon

3. ✗ Polyvinylchloride

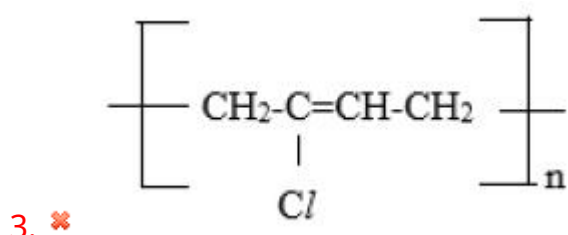
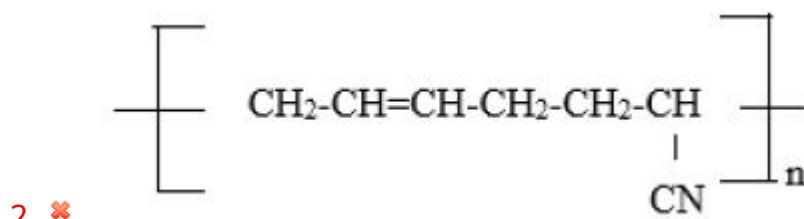
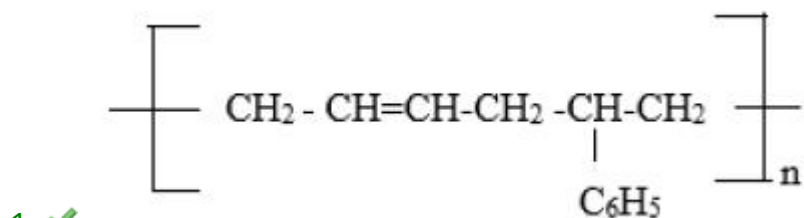
4. ✗ Neoprene rubber

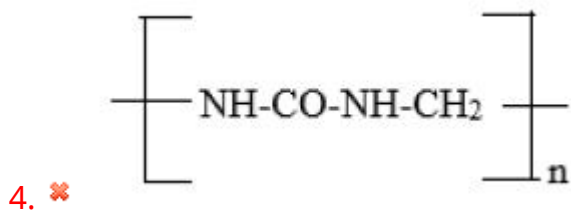
Question Number : 96 Question Id : 77951810302 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The structure of Buna -S polymer is

Options :





Question Number : 97 Question Id : 77951810303 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The polymer used in making gaskets and nono-stick coating utensils is

Options :

1. ✘ Polyvinyl chloride

2. ✘ Polystyrene

3. ✔ Polytetrafluoroethylene

4. ✘ Polythene

Question Number : 98 Question Id : 77951810304 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Which of the following in not to be considered as a primary fuel ?

Options :

1. ✘ Wood

2. ✘ Petroleum

3. ✔ Coke

4. ✘ Coal

Question Number : 99 Question Id : 77951810305 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The oxide of nitrogen responsible for depletion of ozone layer is

Options :

1. ✘ N_2O

2. ✘ NO_2

3. ✔ NO

4. ✘ N_2O_3

Question Number : 100 Question Id : 77951810306 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The BOD of highly polluted water is

Options :

1. ✔ 17 ppm

2. ✘ 10 ppm

3. ✘ 8 ppm

4. ✘ 12 ppm

Agricultural Engineering

Section Id :

779518205

Section Number :

4

Section type :

Online

Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Section Negative Marks :	0
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	779518217
Question Shuffling Allowed :	Yes

Question Number : 101 Question Id : 77951810307 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Rubber roll Sheller can shell up to _____ percentage of paddy fed to it

Options :

1. ✓ 90-95
2. ✗ 80-85
3. ✗ 70-75
4. ✗ 60-65

Question Number : 102 Question Id : 77951810308 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The equipment used for separation of broken rice from head rice is

Options :

1. ✗ Polisher
2. ✗ Separator
3. ✓ Grader
4. ✗ Rubber roller sheller

Question Number : 103 Question Id : 77951810309 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The efficiency of a cyclone separator increases by

Options :

1. ✓ Increasing the air inlet velocity
2. ✗ Decreasing the air inlet velocity
3. ✗ Reducing the size of the separator
4. ✗ Reducing the air outlet diameter

Question Number : 104 Question Id : 77951810310 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Char-coal is made through process

Options :

1. ✗ Anaerobic Digestion
2. ✓ Pyrolysis
3. ✗ Briquetting
4. ✗ Galvanization

Question Number : 105 Question Id : 77951810311 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Moisture content of grain is 22%on wet basis, what will be its value in dry basis

Options :

1. ✗ 48.2%
2. ✗ 38.3%

3. ✓ 28.2%

4. ✗ 18.2%

Question Number : 106 Question Id : 77951810312 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Olpad thresher is used for

Options :

1. ✗ Paddy

2. ✓ Wheat

3. ✗ Gram

4. ✗ Caster

Question Number : 107 Question Id : 77951810313 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The number of holes per square inch in a 20 mesh screen will be

Options :

1. ✗ 200

2. ✓ 400

3. ✗ 600

4. ✗ 800

Question Number : 108 Question Id : 77951810314 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The dryer commonly used for drying of parboiled paddy is

Options :

1. ✓ LSU dryer
2. ✗ Sack dryer
3. ✗ Vacuum dryer
4. ✗ Bin dryer

Question Number : 109 Question Id : 77951810315 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The size reduction mill where the grains are rubbed between the grooved flat faces of rotating circular disks is

Options :

1. ✗ Colloid mill
2. ✗ Ball mill
3. ✗ Hammer mill
4. ✓ Attrition mill

Question Number : 110 Question Id : 77951810316 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The peripheral surface speed of faster roll in rubber-roll sheller is

Options :

1. ✗ 15-20% more
2. ✓ 25-30% more
3. ✗ 35-40% more
4. ✗ Equal

Question Number : 111 Question Id : 77951810317 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The link, in which the motion is transmitted with the help of fluid pressure, is called the fluid link, Example for fluid link is

Options :

1. ✘ Piston
2. ✔ Hydraulic brake
3. ✘ Crank shaft
4. ✘ Rope drive

Question Number : 112 Question Id : 77951810318 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A pair of medium size bullock can develop power range of

Options :

1. ✔ 0.5-1.0 hp
2. ✘ 1.5- 2.0 hp
3. ✘ 2.5- 3.0 hp
4. ✘ 3.5 -4.0 hp

Question Number : 113 Question Id : 77951810319 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The capacity of a hand operated groundnut decorticator is

Options :

1. ✘ 1000 to 1600 kg/h
2. ✘ 100 to 360 kg/h
3. ✔ 40 to 60 kg/h

4. ✘ 4 to 6 kg/h

Question Number : 114 Question Id : 77951810320 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Parboiling process of paddy consist of three important major processes

Options :

1. ✔ Soaking-steaming-drying
2. ✘ Conditioning-pitting-dehusking
3. ✘ Drying-steaming-milling
4. ✘ Drying-storing-milling

Question Number : 115 Question Id : 77951810321 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

What is the primary principle behind the operation of a rubber roll sheller?

Options :

1. ✘ Impact
2. ✔ Friction and Shearing
3. ✘ Compression
4. ✘ Abrasion

Question Number : 116 Question Id : 77951810322 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Pneumatic separator separates grains based on their

Options :

1. ✘ Length
2. ✘ Width
3. ✔ Aerodynamic properties
4. ✘ Shape

Question Number : 117 Question Id : 77951810323 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In biogas plant, digestion occurs in the absence of

Options :

1. ✘ Carbon dioxide
2. ✔ Oxygen
3. ✘ Methane
4. ✘ Hydrogen

Question Number : 118 Question Id : 77951810324 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Gasification of biomass is _____ conversion process

Options :

1. ✔ Thermo chemical
2. ✘ Bio-chemical
3. ✘ Anaerobic
4. ✘ Chemical

Question Number : 119 Question Id : 77951810325 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The industrial process of compressing loose, low-density materials such as agricultural waste is known as

Options :

1. ✘ Gasification
2. ✔ Briquetting
3. ✘ Extrusion
4. ✘ Pelleting

Question Number : 120 Question Id : 77951810326 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The biogas production starts falling very steeply when the temperature is below

Options :

1. ✘ 35°C
2. ✘ 30°C
3. ✘ 25°C
4. ✔ 20°C

Question Number : 121 Question Id : 77951810327 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The instrument which measures total or global radiation over a hemispherical field of view is

Options :

1. ✔ Pyranometer
2. ✘ Pyrhelimeter

3. ✘ Solarimeter

4. ✘ Sunshine recorder

Question Number : 122 Question Id : 77951810328 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In solar energy converting photovoltaic cells are made up of

Options :

1. ✘ Gun metal

2. ✔ Silicon

3. ✘ Magnesium

4. ✘ manganese

Question Number : 123 Question Id : 77951810329 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The lowest temperature at which a liquid generates enough vapor to form an ignitable mixture in the air is known as

Options :

1. ✘ Pour point

2. ✘ Pen point

3. ✔ Flash point

4. ✘ Aniline point

Question Number : 124 Question Id : 77951810330 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Ethanol preferred as fuel due to its cetane number is

Options :

1. ✓ 8
2. ✗ 18
3. ✗ 28
4. ✗ 38

Question Number : 125 Question Id : 77951810331 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The proportion of wet cow dung and water in slurry feed to the digester is

Options :

1. ✗ 4:1
2. ✗ 3:1
3. ✗ 2:1
4. ✓ 1:1

Question Number : 126 Question Id : 77951810332 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The amount of energy received in unit time on unit area perpendicular to the direction of radiation is called

Options :

1. ✗ Solar radiation
2. ✗ Diffused radiation
3. ✓ Solar constant

4. ✘ Heat constant

Question Number : 127 Question Id : 77951810333 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The windmill has good power coefficient, high starting torque and low cost is

Options :

1. ✘ Multi-blade

2. ✘ Sail-type

3. ✔ Savonius-type

4. ✘ Darrieus type

Question Number : 128 Question Id : 77951810334 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Maximum efficiency is obtained in ____ solar collector

Options :

1. ✘ Flat plate collector

2. ✔ Paraboloid dish collector

3. ✘ Evacuated tube collector

4. ✘ Solar cooker

Question Number : 129 Question Id : 77951810335 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Kilo watt-hour(kWh) is the unit of

Options :

1. ✘ Resistance

2. ✘ Power
3. ✔ Energy
4. ✘ Ampere

**Question Number : 130 Question Id : 77951810336 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

Fan-and Pad cooling system today it is commonly made of a ----

Options :

1. ✘ Paper
2. ✘ Grass
3. ✔ Cross fluted cellulose
4. ✘ Wood

**Question Number : 131 Question Id : 77951810337 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

In a semiconductor, conductivity can be increased by

Options :

1. ✘ Cooling it to a very low temperature
2. ✘ Applying a strong magnetic field
3. ✔ Doping with impurities
4. ✘ Removing free electrons

Question Number : 132 Question Id : 77951810338 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The device used for stepping up low voltage of primary current to high voltage current in petrol engine is

Options :

1. ✘ Condenser
2. ✘ Distributor
3. ✘ Dynamo
4. ✔ Ignition coil

Question Number : 133 Question Id : 77951810339 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A compact hand instrument used in setting out right angles with greater accuracy is known as

Options :

1. ✘ Ranging rod
2. ✔ Optical square
3. ✘ Stadia
4. ✘ Compass

Question Number : 134 Question Id : 77951810340 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

To determine the elevation difference between two points far apart (e.g., across a river) and is impossible to set up the instrument in between _____ leveling is used

Options :

1. ✔ Reciprocal leveling
2. ✘

Longitudinal leveling

3. ✘ Fly levelling
4. ✘ Differential levelling

Question Number : 135 Question Id : 77951810341 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Establishment of intermediate points in between main stations for accurate straight line measurement in chain survey is known as

Options :

1. ✘ Surveying
2. ✔ Ranging
3. ✘ Levelling
4. ✘ Off-setting

Question Number : 136 Question Id : 77951810342 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Least count of Theodolite is

Options :

1. ✔ 0.33 minutes
2. ✘ 3.33 minutes
3. ✘ 33.3 minutes
4. ✘ 333 minutes

Question Number : 137 Question Id : 77951810343 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The property of moulding sand which enable to allow the escape of the gases from the mould is

Options :

1. ✓ Permeability
2. ✗ Flowability
3. ✗ Collapsability
4. ✗ Infiltration

Question Number : 138 Question Id : 77951810344 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The head quarter of Central soil and water Conservation Research and Training Institute is situated at _____

Options :

1. ✗ Ooty
2. ✗ Bhopal
3. ✓ Dehradun
4. ✗ Nagpur

Question Number : 139 Question Id : 77951810345 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The total depth of water needed for a crop during its base period is known as

Options :

1. ✗ Rain fall intensity
2. ✗ Run off

3. ✘ Duty

4. ✔ Delta

Question Number : 140 Question Id : 77951810346 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Drop spillway is adopted up to _____ fall of water

Options :

1. ✘ 1.0 m

2. ✘ 2.0 m

3. ✔ 3.0 m

4. ✘ 4.0 m

Question Number : 141 Question Id : 77951810347 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The removal of a fairly uniform layer of soil from the land surface by the action of rainfall and runoff is known as

Options :

1. ✔ Sheet erosion

2. ✘ Splash erosion

3. ✘ coastal erosion

4. ✘ Geological erosion

Question Number : 142 Question Id : 77951810348 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Revised universal soil loss equation (RUSLE) has been developed for allowing more detail consideration of _____

Options :

1. ✘ Rainfall intensity & runoff
2. ✔ Plant cover & management
3. ✘ Temperature & evaporation
4. ✘ Slope & topography

**Question Number : 143 Question Id : 77951810349 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The velocity of water in a stream or river can be measured by

Options :

1. ✘ Water meter
2. ✔ Current meter
3. ✘ Animo meter
4. ✘ Volt meter

**Question Number : 144 Question Id : 77951810350 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

Land leveling is not essential for _____ irrigation method

Options :

1. ✘ Flood irrigation
2. ✘

Furrow irrigation

3. ✘ Border irrigation

4. ✔ Sprinkler irrigation

**Question Number : 145 Question Id : 77951810351 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The discharge of emitter usually ranges from ----- liters per hour

Options :

1. ✘ 0.5-1.0

2. ✔ 2.0-19.0

3. ✘ 20.0-40.0

4. ✘ >50.0

**Question Number : 146 Question Id : 77951810352 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The vertical distance between the water surface at the source and at the outlet
in a pumping system is

Options :

1. ✘ Static suction Head

2. ✘ Static discharge head

3. ✘ Static velocity head

4. ✔ Total static head

Question Number : 147 Question Id : 77951810353 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

A plough which can enter up to 60-90 cm without disturbing top soil and also useful in moisture conservation in rain-fed areas is

Options :

1. ✘ Harrow plough
2. ✘ Rotovator
3. ✔ Sub-soiler
4. ✘ Rotary plough

Question Number : 148 Question Id : 77951810354 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In sprayer _____ is used to avoid pulsation of pump

Options :

1. ✘ Lance
2. ✘ Nozzle
3. ✘ Hose
4. ✔ Air chamber

Question Number : 149 Question Id : 77951810355 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The tillage system in which, a crop is planted directly into a untilled seedbed after harvesting of the previous crop is known as

Options :

1. ✘ Minimum tillage
2. ✔ Zero tillage
3. ✘ Mulch tillage
4. ✘ Deep tillage

Question Number : 150 Question Id : 77951810356 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Rolling plough bottom exists in the following

Options :

1. ✘ Chisel plough
2. ✘ Mould board plough
3. ✔ Disc plough
4. ✘ Cultivator

Question Number : 151 Question Id : 77951810357 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The component designed to take side thrust from soil in M B plough is

Options :

1. ✔ Landside
2. ✘ Frog
3. ✘ Board

4. ✘ Tail piece

**Question Number : 152 Question Id : 77951810358 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The functions of tractor mounted ridger type sugarcane cutter planter are

Options :

1. ✘ Formation of furrows and Cutting the sugarcane setts
2. ✘ Cutting the sugarcane setts and planting the setts
3. ✘ planting the setts and application of granular fertilizer in the furrows
4. ✔ Formation of furrows, cutting setts, planting setts and dropping of fertilizer

**Question Number : 153 Question Id : 77951810359 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The commonly used hydraulic sprayers operating pressure is

Options :

1. ✘ 0-1 kg/cm²
2. ✔ 1-7 kg/cm²
3. ✘ 8-21 kg/cm²
4. ✘ More than 21 kg/cm²

**Question Number : 154 Question Id : 77951810360 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

Which of the following is air assisted sprayer

Options :

1. ✓ Mist blower
2. ✗ Plunger type
3. ✗ Knapsack sprayer
4. ✗ Power operated

Question Number : 155 Question Id : 77951810361 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The component provided at the cutter end of the mower which causes the cut plants to fall towards the cut material is

Options :

1. ✗ Ledger plate
2. ✗ Shoe
3. ✗ Knife back
4. ✓ Grass board

Question Number : 156 Question Id : 77951810362 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The minimum thickness of the blade in chaff cutter is

Options :

1. ✗ 1.4 mm
2. ✓ 2.4 mm

3. ✘ 3.4 mm

4. ✘ 4.4 mm

**Question Number : 157 Question Id : 77951810363 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The common firing order of a 4-stroke, 6 cylinder diesel engine is

Options :

1. ✘ 1-2-3-4-5-6

2. ✘ 6-5-4-3-2-1

3. ✔ 1-5-3-6-2-4

4. ✘ 2-1-4-3-5-6

**Question Number : 158 Question Id : 77951810364 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The mechanical efficiency of an engine is expressed as

Options :

1. ✔ $\frac{\text{BHP}}{\text{IHP}} \times 100$

2. ✘ $\frac{\text{IHP}}{\text{BHP}} \times 100$

3. ✘ $\frac{\text{IHP} - \text{BHP}}{\text{IHP}} \times 100$

4. ✘ $\frac{\text{BHP} - \text{IHP}}{\text{BHP}} \times 100$

Question Number : 159 Question Id : 77951810365 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The shaft which raises and lowers the inlet and exhaust valves at proper time is

Options :

1. ✘ Connecting rod

2. ✘ Crankshaft

3. ✔ Camshaft

4. ✘ Timing gear

Question Number : 160 Question Id : 77951810366 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The process of removal of burnt or exhaust gas from the engine cylinder is known as

Options :

1. ✘ Cleaning

2. ✘ Suction

3. ✘ Inflation

4. ✔ Scavenging

Question Number : 161 Question Id : 77951810367 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Which one of the following plough is used for two way ploughing

Options :

1. ✘ MB plough

2. ✘ Chisel plough

3. ✔ Turn wrest plough

4. ✘ Cultivator

Question Number : 162 Question Id : 77951810368 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Depreciation per hour of Rs 8,00,000/ tractor working 1000 hours per year for 10 years is

Options :

1. ✘ Rs.36

2. ✔ Rs.72

3. ✘ Rs. 144

4. ✘ Rs. 288

Question Number : 163 Question Id : 77951810369 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Row to Row spacing maintained in riding type 6 or 8 row rice transplanter is

Options :

1. ✘ 10 cm

2. ✘ 20 cm

3. ✔ 30 cm

4. ✘

40 cm

Question Number : 164 Question Id : 77951810370 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Alignment and registration exists in the following equipment

Options :

1. ✘ Digger
2. ✘ Auger
3. ✘ Baler
4. ✔ Reaper

Question Number : 165 Question Id : 77951810371 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In seed drill, the area is covered by one revolution is 10m^2 , seed drop in one revolution is 40 grams, then what is the seed rate

Options :

1. ✔ 40 kg/ha
2. ✘ 30 kg/ha
3. ✘ 20 kg/ha
4. ✘ 10 kg/ha

Question Number : 166 Question Id : 77951810372 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

If soil resistance is 0.6 Kg/cm^2 and width of plough is 120cm, depth 10cm then draft is

Options :

1. ✘ 72 kg
2. ✔ 720kg
3. ✘ 1420kg
4. ✘ 7200kg

Question Number : 167 Question Id : 77951810373 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In _____ planting both row to row and plant to plant distances are same

Options :

1. ✔ Check row planting
2. ✘ Twin row planting
3. ✘ Off set planting
4. ✘ Nursery planting

Question Number : 168 Question Id : 77951810374 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The angle between centre line of king-pin of tractor and vertical line is called

Options :

1. ✘ Camber angle
2. ✘

Toe-in angle

3. ✘ Tilt angle

4. ✔ Caster angle

Question Number : 169 Question Id : 77951810375 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Perpendicular distance between point of share and lower portion of beam is known as

Options :

1. ✘ Side clearance

2. ✘ Vertical clearance

3. ✘ Horizontal clearance

4. ✔ Throat clearance

Question Number : 170 Question Id : 77951810376 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Thermodynamic cycle on which the petrol engine works is

Options :

1. ✘ Joule cycle

2. ✔ Otto cycle

3. ✘ Rankine cycle

4. ✘ Stirling cycle

Question Number : 171 Question Id : 77951810377 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Why the inflation pressure of rear wheels of tractor is less than the front wheels ?

Options :

1. ✘ To increase speed
2. ✔ To improve traction
3. ✘ To reduce friction
4. ✘ To increase life

Question Number : 172 Question Id : 77951810378 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The ratio of the wheel or track in the direction of travel for a given distance under load and at no load condition is known as

Options :

1. ✘ Rolling resistance
2. ✘ Rim pull
3. ✔ Wheel slip
4. ✘ Tractive efficiency

Question Number : 173 Question Id : 77951810379 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The lubrication oil pressure in the hydraulic system of a tractor is developed by _____ pump

Options :

1. ✘ Centrifugal pump
2. ✘ Vane pump
3. ✘ Turbine pump
4. ✔ Gear pump

Question Number : 174 Question Id : 77951810380 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In rice field preparation to form semi impervious layer & reduce infiltration losses _____ implement is used

Options :

1. ✘ Cage wheels
2. ✔ Puddler
3. ✘ Sub soiler
4. ✘ Cultivator

Question Number : 175 Question Id : 77951810381 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Contour bunding is used _____

Options :

1. ✘ To store water in desert areas
2. ✔ To reduce erosion in hilly areas

3. ✘ To stop winds in hilly areas

4. ✘ To increase water velocity

Question Number : 176 Question Id : 77951810382 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Bench terraces are used by dividing slope land into

Options :

1. ✘ Continuous surface

2. ✘ Water retaining wells

3. ✘ Rain fall collecting pit

4. ✔ Series of flat pieces

Question Number : 177 Question Id : 77951810383 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The weir, which commonly used to measure minimum discharges in open channels

Options :

1. ✘ Cipolletti weir

2. ✘ Surface weir

3. ✘ Rectangular weir

4. ✔ V-notch or triangular weir

Question Number : 178 Question Id : 77951810384 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Piezometer is used to measure

Options :

1. ✘ Dynamic pressure of a flowing fluid
2. ✘ Total pressure of a flowing fluid
3. ✔ Static pressure of a flowing fluid
4. ✘ Surface tension of a flowing fluid

Question Number : 179 Question Id : 77951810385 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The permanent irrigation channels should not usually have side slopes steeper than

Options :

1. ✘ $\frac{1}{2}$ to 1
2. ✔ $1\frac{1}{2}$ to 1
3. ✘ 2 to 1
4. ✘ 3 to 1

Question Number : 180 Question Id : 77951810386 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

It is provided as a safety measure against overtopping of channels due to wave action or other unforeseen reasons is

Options :

1. ✔ Free board

2. ✘ Hydraulic slope
3. ✘ Hydraulic radius
4. ✘ Wetted perimeter

**Question Number : 181 Question Id : 77951810387 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

In an ideal thermodynamic cycle for compression-ignition (engines) heat is added at

Options :

1. ✔ Constant Pressure
2. ✘ Constant Volume
3. ✘ Constant Cooling
4. ✘ Constant Temperature

**Question Number : 182 Question Id : 77951810388 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The equipment used to establish in-situ drainage in the fields

Options :

1. ✘ Cultivator
2. ✘ Sub-soiler
3. ✘ MB plough
4. ✔

Mole plough

Question Number : 183 Question Id : 77951810389 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The tooth spacing in a saw is called

Options :

1. ✘ Saw width
2. ✘ Pitch
3. ✘ Tooth back
4. ✔ Tooth gullet

Question Number : 184 Question Id : 77951810390 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Plantation of high water consuming trees for withdrawal of groundwater is termed as

Options :

1. ✘ Surface drainage
2. ✘ Sub- Surface drainage
3. ✔ Bio-drainage
4. ✘ Vertical drainage

Question Number : 185 Question Id : 77951810391 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The ratio of stress to strain for any given material is called

Options :

1. ✘ Yield point
2. ✔ Modulus of elasticity
3. ✘ Elasticity
4. ✘ Resistivity

Question Number : 186 Question Id : 77951810392 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The rod staff level reading taken on a point of known elevation is called

Options :

1. ✘ Plane sight
2. ✘ Fore sight
3. ✔ Back sight
4. ✘ Short sight

Question Number : 187 Question Id : 77951810393 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Lysimeter is used to measure

Options :

1. ✔ Evapotranspiration
2. ✘ Infiltration
3. ✘ Vapour pressure

4. ✘ Evaporation

Question Number : 188 Question Id : 77951810394 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Zeroth law of thermodynamics is concerned with

Options :

1. ✘ Thermal conductivity

2. ✘ Thermal diffusivity

3. ✘ Thermal resistivity

4. ✔ Thermal equilibrium

Question Number : 189 Question Id : 77951810395 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

Zinc-coated iron sheet is known as

Options :

1. ✘ Black Iron sheet

2. ✘ Tin Plate sheet

3. ✔ Galvanised Iron sheet

4. ✘ Stainless steel

Question Number : 190 Question Id : 77951810396 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0

The perpendicular distance between the lines of action of the two equal and opposite parallel forces, is known as

Options :

1. ✘ Magnitude of couple
2. ✘ Moment of a couple
3. ✔ Arm of the couple
4. ✘ Clockwise couple

Question Number : 191 Question Id : 77951810397 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The percentage of carbon dioxide in the atmosphere is _____ ppm

Options :

1. ✘ 345
2. ✔ 435
3. ✘ 534
4. ✘ 543

Question Number : 192 Question Id : 77951810398 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The unit of a lathe which houses the lathe spindle and control levers for speed selection is called a

Options :

1. ✘ Carriage

2. ✓ Head Stock

3. ✗ Tail Stock

4. ✗ Feed box

**Question Number : 193 Question Id : 77951810399 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

In the method of surveying the field work and plotting are done simultaneously is called

Options :

1. ✗ Drawing survey

2. ✗ Chain survey

3. ✗ Compass survey

4. ✓ Plane table survey

**Question Number : 194 Question Id : 77951810400 Question Type : MCQ
Correct Marks : 1 Wrong Marks : 0**

The longest of the chain lines used in making survey is generally called as

Options :

1. ✗ Check line

2. ✓ Base line

3. ✗ Main line

4. ✗

Tie line

Question Number : 195 Question Id : 77951810401 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The length of revenue chain is

Options :

1. ✘ 100ft

2. ✘ 90ft

3. ✘ 66ft

4. ✔ 33ft

Question Number : 196 Question Id : 77951810402 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

The device used to hold round material of small diameter such as wire and pins is

Options :

1. ✘ Leg vice

2. ✘ Hand vice

3. ✔ Pin vice

4. ✘ Tool vice

Question Number : 197 Question Id : 77951810403 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

In arc welding, the arc is created between the electrode and

Options :

1. ✘ Wooden piece
2. ✔ Work piece
3. ✘ Glass piece
4. ✘ Plastic piece

Question Number : 198 Question Id : 77951810404 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

An iron or brass ring fitted at the bottom of the sickle handle to prevent it from splitting during the operation

Options :

1. ✔ Ferrule
2. ✘ Tang
3. ✘ Knife
4. ✘ Bolster

Question Number : 199 Question Id : 77951810405 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Process of cutting internal threads in a metal by using a hand tool is known as

Options :

1. ✘ Marking

2. ✓ Tapping

3. ✗ Reaming

4. ✗ Drilling

Question Number : 200 Question Id : 77951810406 Question Type : MCQ

Correct Marks : 1 Wrong Marks : 0

Process of joining permanently two pieces of sheet metal without any heat energy is known as

Options :

1. ✗ Soldering

2. ✗ Welding

3. ✓ Riveting

4. ✗ Brazing