Question Paper Preview

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 :	BSc Mathematics 31st Aug 2020 Shift 2
Subject Name :	BSc Mathematics
Creation Date :	2020-09-01 11:53:56
Duration :	180
Total Marks :	200
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? :	Yes

BSc Mathematics

Group Number :	1
Group Id :	76439052
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	200
Is this Group for Examiner? :	No

Mathematics

Section Id :	764390200
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	764390225

Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 76439010221 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $y = \sin(m\sin^{-1}x)$, then which of the following holds true

Options :

76439040801. ✖ $(1-x^2)y_2 + xy_1 + m^2y = 0$

76439040802. ✔ $(1-x^2)y_2 - xy_1 + m^2y = 0$

76439040803. ✖ $(1+x^2)y_2 - xy_1 + m^2y = 0$

76439040804. ✖ $(1+x^2)y_2 - xy_1 - m^2y = 0$

Question Number : 2 Question Id : 76439010222 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Maclaurins expansion of $e^{\sin x}$ is

Options :

76439040805. ✔ $1 + x + \frac{x^2}{2} - 3\frac{x^4}{4!} + ...$

76439040806. ✖ $1 + x + \frac{x^2}{2!} - \frac{x^4}{4!} + ...$

76439040807. ✖ $1 + \frac{x^2}{2!} + \frac{x^4}{4!} + ...$

76439040808. ✖ $1 - \frac{x^2}{2!} + \frac{x^4}{4!} + ...$

Question Number : 3 Question Id : 76439010223 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\lim_{x\to 0} \frac{\sin x^2}{x} =$

Options :

76439040809. ∞

76439040810. -1

76439040811. 1

76439040812. ✔ 0

Question Number : 4 Question Id : 76439010224 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The curvature of the function $f(x) = x^2 + 2x + 1$ at x=0 is

Options :

76439040813. 0

76439040814. $\frac{2}{3^{3/2}}$

76439040815. $\frac{3}{2^{3/2}}$

76439040816. ✔ $\frac{2}{5^{3/2}}$

Question Number : 5 Question Id : 76439010225 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Number of possible evolutes for a curve is

Options :

76439040817. ✔ one

76439040818. two

76439040819. equal to radius value

76439040820. infinite

Question Number : 6 Question Id : 76439010226 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $z=\frac{x+y}{y}$, then $x.\frac{\partial z}{\partial x}+y.\frac{\partial z}{\partial y}=$

Options :

76439040821. ✔ 0

76439040822. ✖ 1

76439040823. ✖ 3

76439040824. ✖ 2

Question Number : 7 Question Id : 76439010227 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $H=f(y-z,z-x,x-y),then\ \ \frac{\partial H}{\partial x}+\frac{\partial H}{\partial y}+\frac{\partial H}{\partial z}=$

Options :

76439040825. ✖ -1

76439040826. ✔ 0

76439040827. ✖ 1

76439040828. ✖ 2

Question Number : 8 Question Id : 76439010228 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $x^x.y^y.z^z=c,\ \ z=f(x,y),$ then at $x=y=z,$ the value of $\frac{\partial z}{\partial x}.\frac{\partial z}{\partial y}$

Options :

76439040829. ✖ 0

76439040830. ✖ -1

76439040831. ✔ 1

76439040832. ✖ 2

Question Number : 9 Question Id : 76439010229 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

For a function $f(x,y)$, let r,s,t be respectively $\frac{\partial^2 f}{\partial x^2}, \frac{\partial^2 f}{\partial x \partial y}, \frac{\partial^2 f}{\partial y^2}$. Then Lagranges' condition for $f(x,y)$ to have minimum is

Options :

76439040833. ✔ $rt - s^2 > 0$ and $r > 0$

76439040834. ✖ $rt - s^2 > 0$ and $r < 0$

76439040835. ✖ $rt - s^2 < 0$ and $r > 0$

76439040836. ✖ $rt - s^2 < 0$ and $r < 0$

Question Number : 10 Question Id : 76439010230 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The envelope of the family of straight lines $y = mx + \frac{a}{m}$, (m being a parameter) is

Options :

76439040837. ✔ $y^2 = 4ax$

76439040838. ✖ $x^2 = 4ay$

76439040839. ✖ $4ax - y = 0$

76439040840. $4ay - x = 0$

Question Number : 11 Question Id : 76439010231 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following is an exact differential equation?

Options :

76439040841. $(x^2+1)dx-(xy)dy=0$

76439040842. $(3x-2y)dx+xdy=0$

76439040843. ✔ $2xydx+(2+x^2)dy=0$

76439040844. $-ydx+x^2ydy=0$

Question Number : 12 Question Id : 76439010232 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

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

Options :

76439040845. $1/x^4$

76439040846. $-1/x^4$

76439040847. $1/xy^3$

76439040848. ✔ $-1/y^4$

Question Number : 13 Question Id : 76439010233 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The general solution of the differential equation $\sec^2 y\frac{dy}{dx}+2x\tan y=x^3$ is

Options :

$$\tan y.e^{x^2} = \frac{1}{2}e^{x^2}\left(x^2-1\right)+C$$

76439040849. ✔

$$\sec y.e^{x^2} = \frac{1}{2}e^{x^2}\left(x^2+5\right)+C$$

76439040850. ✖

$$\tan y.e^{x^2} = e^{x^2}\left(x-1\right)+C$$

76439040851. ✖

$$\sec y.e^{x^2} = \frac{e^{x^2}}{2}\left(x^3-1\right)+C$$

76439040852. ✖

Question Number : 14 Question Id : 76439010234 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Solution of the differential equation $\frac{dx}{yz}=\frac{dy}{zx}=\frac{dz}{xy}$ is

Options :

$$x^2-y^2=c_1, y^2-z^2=c_2$$

76439040853. ✔

$$x^2+y^2=c_1, y^2+z^2=c_2$$

76439040854. ✖

$$x^2y^2=c_1, y^2z^2=c_2$$

76439040855. ✖

$$xy=c_1, yz=c_2$$

76439040856. ✖

Question Number : 15 Question Id : 76439010235 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The general solution of the differential equation $p^2-5p+6=0$, (where $p=\frac{dy}{dx}$) is

Options :

$$(y-3x-c)(y+2x-c)=0$$

76439040857. ✖

$(y-3x-c)(y-2x-c)=0$

76439040858. ✔

$(y+3x-c)(y-2x-c)=0$

76439040859. ✖

$(y+3x-c)(y+2x-c)=0$

76439040860. ✖

Question Number : 16 Question Id : 76439010236 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Solution for $\frac{dx}{x}=\frac{dy}{x+z}=\frac{dz}{-z}$ is

Options :

$zx=c_1,-x+y+z=c_2$

76439040861. ✔

$xy=c_1,x+y+z=c_2$

76439040862. ✖

$-xy=c_1,x-y-z=c_2$

76439040863. ✖

$xy=c_1,-x+y+z=c_2$

76439040864. ✖

Question Number : 17 Question Id : 76439010237 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If $p=\frac{dy}{dx}$, then the general solution of the differential equation $y^2\log y=xpy+p^2$ is

Options :

$\log x=cx+c^2$

76439040865. ✖

$\log y=cx+c^2$

76439040866. ✔

$\log p=\log cx$

76439040867. ✖

76439040868. $\log y = \log p + c$

Question Number : 18 Question Id : 76439010238 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $p = \frac{dy}{dx}$ then the general solution of the differential equation $y = xp^2 + p$ is

Options :

76439040869. $x = \frac{(-t + \log t + c)}{(t-1)^2}$ and $y = xt^2 + t$

76439040870. $x = (-t + \log t)$ and $y = xt^2$

76439040871. $x = (t-1)^{-2}$ and $y = t$

76439040872. $x = -t + c$ and $y = xt^2$

Question Number : 19 Question Id : 76439010239 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

General form of Clairaut's equation is

Options :

76439040873. $y = xp + f(py)$

76439040874. $y = xp + f(px)$

76439040875. $y = xp + f(p)$

76439040876. $y = f(x) + f(p)$

Question Number : 20 Question Id : 76439010240 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Solution of differential equation $p = \tan(xp - y)$ is

Options :

76439040877. ✖ $y = xc + \tan^{-1} c,\ c \in R$

76439040878. ✔ $y = xc - \tan^{-1} c,\ c \in R$

76439040879. ✖ $y = x + \tan^{-1} cx,\ c \in R$

76439040880. ✖ $y = c - \tan^{-1} cx,\ c \in R$

Question Number : 21 Question Id : 76439010241 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Complementary function of the differential equation $y'' + y' - 6y = 0$ is

Options :

76439040881. ✔ $y = c_1 e^{2x} + c_2 e^{-3x}$

76439040882. ✖ $y = c_1 e^{-2x} + c_2 e^{3x}$

76439040883. ✖ $y = c_1 e^{-2x} + c_2 e^{-3x}$

76439040884. ✖ $y = c_1 e^{2x} + c_2 e^{3x}$

Question Number : 22 Question Id : 76439010242 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Particular integral of the differential equation $y'' - 4y' + 4y = e^x$ is

Options :

76439040885. ✖ $y_p = e^{2x}$

76439040886. ✖ $y_p = e^{-2x}$

76439040887. ✔ $y_p = e^{x}$

76439040888. ✖ $y_p = e^{-x}$

Question Number : 23 Question Id : 76439010243 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

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

Options :

76439040889. ✖ $y=e^{x}(c_1\cos 2x+c_2\sin 2x)$

76439040890. ✖ $y=e^{-x}(c_1\cos 2x+c_2\sin 2x)$

76439040891. ✖ $y=c_1\cos 2x-c_2x\sin 2x$

76439040892. ✔ $y=c_1\cos 2x+c_2\sin 2x$

Question Number : 24 Question Id : 76439010244 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The general solution of the differential equation $y''-2y'-3y=5$ is

Options :

76439040893. ✔ $y=c_1e^{-x}+c_2e^{3x}-5/3$

76439040894. ✖ $y=c_1e^{x}+c_2e^{-3x}-5/3$

76439040895. ✖ $y=c_1e^{x}+c_2e^{3x}+5/3$

76439040896. ✖ $y=c_1e^{x}+c_2e^{3x}-5/3$

Question Number : 25 Question Id : 76439010245 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The general solution of the differential equation $y''-y'-2y=\sin 2x$ is

Options :

76439040897. ✖ $y=c_1e^{x}+c_2e^{2x}+\frac{1}{20}(\cos 2x-3\sin 2x)$

$$y = c_1e^{x} + c_2e^{-2x} + \frac{1}{20}(\cos 2x - 3\sin 2x)$$

76439040898.

$$y = c_1e^{-x} + c_2e^{2x} + \frac{1}{20}(\cos 2x - 3\sin 2x)$$

76439040899.

$$y = c_1e^{-x} + c_2e^{-2x} + \frac{1}{20}(\cos 2x - 3\sin 2x)$$

76439040900.

Question Number : 26 Question Id : 76439010246 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the particular integral of $f(D)y = e^{ax}v$ *is* $e^{ax}\frac{1}{g(D)}v$, *then* $g(D) =$

Options :

76439040901. $f(D-a)$

76439040902. $f(D+a)$

76439040903. $f(Da)$

76439040904. $f(D/a)$

Question Number : 27 Question Id : 76439010247 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Solution of differential equation $(D^2-1)y = e^x(1+x^2)$ is

Options :

$$y = c_1e^{x} + c_2e^{-x} + (x^3 - 3x^2 + 9x)\frac{e^x}{12}$$

76439040905.

$$y = c_1e^{x} + c_2e^{-x} + (2x^3 - 3x^2 + 9x)\frac{e^x}{12}$$

76439040906.

$$y = c_1e^{x} + c_2e^{-x} + (x^3 + 3x^2 + 9x)\frac{e^x}{12}$$

76439040907.

$$y = c_1 e^x + c_2 e^{-x} + (x^3 - x^2 + x)\frac{e^x}{12}$$

76439040908.

Question Number : 28 Question Id : 76439010248 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If a and b are arbitrary constants, then the Partial differential equation for which

$2z = \frac{x^2}{a^2} + \frac{y^2}{b^2}$ is a complete solution is

Options :

76439040909. $2z = \frac{\partial z}{\partial x} - \frac{\partial z}{\partial y}$

76439040910. $2z = x - y$

76439040911. $2z = x\frac{\partial z}{\partial x} - y\frac{\partial z}{\partial y}$

76439040912. ✔ $2z = x\frac{\partial z}{\partial x} + y\frac{\partial z}{\partial y}$

Question Number : 29 Question Id : 76439010249 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Solution of partial differential equation $x\frac{\partial z}{\partial x} + y\frac{\partial z}{\partial y} = z$ is

Options :

76439040913. ✔ $f(\frac{y}{z}) = \frac{x}{y}$

76439040914. $f(x+y) = f(y+z)$

76439040915. $f(xz) = yz$

76439040916. $f(x,y) = f(x+y)$

Question Number : 30 Question Id : 76439010250 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If f and g are arbitrary functions, then the partial differential equation for which

$z = f(x+ct)+g(x-ct)$ is a general solution is

Options :

76439040917. $\frac{\partial^2 z}{\partial x^2} = \frac{\partial^2 z}{\partial t^2}$

76439040918. $\frac{\partial^2 z}{\partial x^2} = c\frac{\partial^2 z}{\partial t^2}$

76439040919. $c^2\frac{\partial^2 z}{\partial x^2} = \frac{\partial^2 z}{\partial t^2}$

76439040920. $\frac{\partial^2 z}{\partial x^2} = c\frac{\partial z}{\partial t}$

Question Number : 31 Question Id : 76439010251 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The sequence $\{(-1)^n n\}$ is

Options :

76439040921. Convergent

76439040922. Oscillate infinitely

76439040923. Divergent

76439040924. Bounded

Question Number : 32 Question Id : 76439010252 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The sequence $\{\sqrt{n}\}$

Options :

76439040925. ✔ Diverges to ∞

76439040926. ✖ Converges to 0

76439040927. ✖ Converges to 1

76439040928. ✖ Converges to ½

Question Number : 33 Question Id : 76439010253 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The sequence $\left\{\frac{(-1)^{n-1}}{n}\right\}$ is

Options :

76439040929. ✔ Convergent to 0

76439040930. ✖ Divergent

76439040931. ✖ Oscillating

76439040932. ✖ Unbounded

Question Number : 34 Question Id : 76439010254 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

A sequence $\{S_n\}$ is said to be strictly increasing if

Options :

76439040933. ✔ $S_n < S_{n+1} \ \forall n \in \mathbb{Z}^+$

76439040934. ✖ $S_n \leq S_{n+1} \ \forall n \in \mathbb{Z}^+$

76439040935. ✖ $S_n > S_{n+1} \ \forall n \in \mathbb{Z}^+$

76439040936. ✖ $S_n \geq S_{n+1} \quad \forall n \in \mathbb{Z}^+$

Question Number : 35 Question Id : 76439010255 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $S_n = 2 - \frac{1}{2^{n-1}}$, $\forall n \geq 1$, then $\{S_n\}$ is

Options :

76439040937. ✖ Divergent

76439040938. ✖ Oscillates

76439040939. ✔ Convergent

76439040940. ✖ Decreasing sequence

Question Number : 36 Question Id : 76439010256 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\lim_{n\to\infty} \frac{1}{n}\left[1 + 2^{1/2} + 3^{1/3} + 4^{1/4} + \ldots\ldots\ldots + n^{1/n}\right] =$

Options :

76439040941. ✖ 0

76439040942. ✔ 1

76439040943. ✖ 2

76439040944. ✖ 3

Question Number : 37 Question Id : 76439010257 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The series $\sum_{n=0}^{\infty} \frac{n^2}{n!}$ is

Options :

76439040945. ✖ unbounded

76439040946. ✔ convergent

76439040947. ✖ divergent

76439040948. ✖ Oscillate

Question Number : 38 Question Id : 76439010258 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The series $\frac{1}{2}+\frac{1\cdot 3}{2\cdot 5}+\frac{1\cdot 3\cdot 5}{2\cdot 5\cdot 8}+\cdots$ is

Options :

76439040949. ✔ Convergent

76439040950. ✖ Divergent

76439040951. ✖ Oscillating between 0 and 1/2

76439040952. ✖ Convergent to -1

Question Number : 39 Question Id : 76439010259 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The series $\sum\frac{1}{(\log n)^n}$ is

Options :

76439040953. ✔ Convergent

76439040954. ✖ Divergent to ∞

76439040955. ✖ Oscillatory

76439040956. ✖ Divergent to $-\infty$

Question Number : 40 Question Id : 76439010260 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The series $\sum_{n=2}^{\infty} \frac{1}{n[\log n]^P}$ converges if

Options :

76439040957. ✖ P=1

76439040958. ✖ P<1

76439040959. ✔ P>1

76439040960. ✖ for all real P

Question Number : 41 Question Id : 76439010261 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Radius of convergence for the series $\sum_{n=0}^{\infty} \frac{x^n}{n!}$ is

Options :

76439040961. ✖ 0

76439040962. ✖ 1

76439040963. ✔ ∞

76439040964. ✖ -1

Question Number : 42 Question Id : 76439010262 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $\sum_{n=1}^{\infty} 2^{-n} x^n$ represents a continuous function f, then

Options :

76439040965. ✖ f is uniformly convergent on (-2,2)

76439040966. ✖ f is uniformly convergent on [-2,-2]

76439040967. ✔ f is not uniformly convergent on (-2,2)

76439040968. ✖ f is uniformly convergent on (-2,0)

Question Number : 43 Question Id : 76439010263 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The interval of convergence for the series $\sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{n}(x-1)^n$ is

Options :

76439040969. ✔ $(0, 2]$

76439040970. ✖ $(0, 2)$

76439040971. ✖ $[0, 3]$

76439040972. ✖ $(0, 3]$

Question Number : 44 Question Id : 76439010264 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The series $\sum_{n=1}^{\infty} \log\left(\frac{1}{n}\right)$

Options :

76439040973. ✖ converges

76439040974. ✔ diverges

76439040975. ✖ oscillates

76439040976. ✖ is bounded

Question Number : 45 Question Id : 76439010265 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The series $\sum_{n=2}^{\infty} \frac{\log n}{2n^3 - 1}$

Options :

76439040977. ✔ converges

76439040978. ✖ diverges

76439040979. ✖ oscillates

76439040980. ✖ is bounded

Question Number : 46 Question Id : 76439010266 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The series $\sum\left(1+\frac{1}{n}\right)^{-n}$

Options :

76439040981. ✖ converges

76439040982. ✔ diverges

76439040983. ✖ oscillates

76439040984. ✖ converges to e

Question Number : 47 Question Id : 76439010267 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

On $[0,\pi/2]$, $f(x)=\sin x$ is

Options :

76439040985. ✔ integrable

76439040986. ✖ not integrable because it is unbounded

76439040987. ✖ not integrable because it is periodic

76439040988. ✖ not integrable because $\frac{d}{dx}\cos x=-\sin x$

Question Number : 48 Question Id : 76439010268 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$[x]$ represents an integer not greater than x. Then the function $f(x)=[x]$ is

Options :

76439040989. ✖ Not integrable on $[0,3]$ because it is discontinuous at [1,2]

76439040990. ✖ Not integrable on $[1,5]$ because $1\le[x]\le 5 \quad \forall x\in[1,5]$

76439040991. ✔ integrable on $[-1,2]$ and $\int_{-1}^{2} f(x)=0$

76439040992. ✖ integrable on $[-1,1]$ and $\int_{-1}^{1} f(x)dx=0$

Question Number : 49 Question Id : 76439010269 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\lim_{n\to\infty}\frac{1}{n}\left[e^{3/n}+e^{6/n}+.....+e^{3n/n}\right]=$

Options :

76439040993. ✖ $1/3$

76439040994. ✖ $\frac{e-1}{3}$

76439040995. ✔ $\frac{(e-1)\left(e^2+e+1\right)}{3}$

76439040996. ✖ $\frac{(e+1)\left(e^2-e+1\right)}{3}$

Question Number : 50 Question Id : 76439010270 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\int_{0}^{2} x[x]dx=$

Options :

76439040997. ✖ does not exist because $x[x]$ is not integrable on [0,2]

76439040998. ✖ 1

76439040999. ✔ 3/2

76439041000. ✖ 2

Question Number : 51 Question Id : 76439010271 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let G be set of integers. Then G is not a group under multiplication because

Options :

76439041001. ✖ closure property fails

76439041002. ✖ associative property fails

76439041003. ✔ identity element exists and inverse property fails

76439041004. ✖ identity property and inverse property fail

Question Number : 52 Question Id : 76439010272 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If a is an element of the group G and $|a|=15$, then the order of a^9 of G is

Options :

76439041005. ✖ 3

76439041006. ✔ 5

76439041007. ✖ 9

76439041008. ✖ 1

Question Number : 53 Question Id : 76439010273 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A nonempty subset H of group G is a subgroup of G if and only if for all $a,b \in H$

Options :

76439041009. ✖ $ab \in H$

76439041010. ✖ $a^{-1} \in H$

76439041011. ✔ $ab^{-1} \in H$

76439041012. ✖ $a+b \in H$

Question Number : 54 Question Id : 76439010274 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The generators of the cyclic group Z_8 are

Options :

76439041013. ✔ $\{1,3,5,7\}$

76439041014. ✖ $\{1,2,4,6\}$

76439041015. ✖ $\{1,3,4,7\}$

76439041016. ✖ $\{1,2,5,6\}$

Question Number : 55 Question Id : 76439010275 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The number of subgroups of a finite cyclic group G of order 18 is

Options :

76439041017. ✖ 2

76439041018. ✖ 4

76439041019. ✔ 6

76439041020. ✖ 8

Question Number : 56 Question Id : 76439010276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which among the following as an even permutation.

Options :

76439041021. ✖ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 2 & 4 & 5 & 6 & 7 & 1 \end{pmatrix}$

76439041022. ✔ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 1 & 4 & 7 & 6 & 2 & 5 \end{pmatrix}$

76439041023. ✖ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 2 & 3 & 1 & 4 & 6 & 5 \end{pmatrix}$

76439041024. ✖ $\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 3 & 1 & 2 & 4 & 6 & 5 \end{pmatrix}$

Question Number : 57 Question Id : 76439010277 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

let ϕ be a mapping from R to R defined by $\phi(x) = x^3$. Then ϕ is not

Options :

76439041025. ✔ homomorphism under addition

76439041026. ✖ injection

76439041027. ✖ surjection

76439041028. ✖ bijection

Question Number : 58 Question Id : 76439010278 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

let R^* be a group of non-zero real numbers. Let $\phi: R^* \to R^*$ defined by $\phi(x) = |x|$ under multiplication is a homomorphism. Then Ker ϕ =

Options :

76439041029. ✖ R^*

76439041030. ✖ $\{0\}$

76439041031. ✔ $\{-1,1\}$

76439041032. ✖ $\{2,3\}$

Question Number : 59 Question Id : 76439010279 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $H = \{1,-1\}$ be a subgroup 0f $G = \{1,-1,i,-i\}$ under multiplication. Then the distinct left cosets of H in G are

Options :

76439041033. ✔ $\{1,-1\}$ and $\{i,-i\}$

76439041034. ✖ $\{1,i\}$ and $\{-1,i\}$

76439041035. ✖ $\{1,-i\}$ and $\{-1,i\}$

76439041036. ✖ $\{1,i\}$ and $\{-1,-i\}$

Question Number : 60 Question Id : 76439010280 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let G be a group with $|G| = 90$. If H is a subgroup of G, then a possible value of $|H|$ is

Options :

76439041037. ✖ 25

76439041038. ✖ 17

76439041039. ✖ 33

76439041040. ✔ 15

Question Number : 61 Question Id : 76439010281 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The unity element of subring $\{0,2,4\}$ of ring Z_6 is

Options :

76439041041. ✖ 0

76439041042. ✖ 1

76439041043. ✖ 2

76439041044. ✔ 4

Question Number : 62 Question Id : 76439010282 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The solution of the equation $3x = 2$ in Z_7 is

Options :

76439041045. ✖ 2/3

76439041046. ✔ 3

76439041047. ✖ 4

76439041048. ✖ 5

Question Number : 63 Question Id : 76439010283 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which among the following is not true.

Options :

76439041049. ✖ a field has no zero divisors

76439041050. every field is an integral domain

76439041051. Z_n, in the ring of integers modulo n is a field for all n.

76439041052. every finite integral domain is a field

Question Number : 64 Question Id : 76439010284 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The number of ideals of a field F are

Options :

76439041053. 1

76439041054. 2

76439041055. 0

76439041056. 4

Question Number : 65 Question Id : 76439010285 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which among the following is not true.

Options :

76439041057. intersection of ideals is not an ideal

76439041058. sum of ideals is not an ideal

76439041059. if R is a commutative ring and $a \in R$, then Ra is not an ideal of R

76439041060. union of ideals need not be an ideal

Question Number : 66 Question Id : 76439010286 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

if $f : z_5 \to z_{10}$, defined by $f(x) = 5x, \forall x \in z_5$, then

Options :

76439041061. ✔ $f(1+3)=f(1)+f(3)$

76439041062. ✖ $f(2+4)=f(2)+f(4)$

76439041063. ✖ $f(3+4)=f(3)+f(4)$

76439041064. ✖ $f(1+4)=f(1)+f(4)$

Question Number : 67 Question Id : 76439010287 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

let $R=\left\{\begin{bmatrix} a & b \\ b & a \end{bmatrix} / a,b\in\mathbb{Z}\right\}$ and $\phi: R\to\mathbb{Z}$ defined by $\phi\left(\begin{bmatrix} a & b \\ b & a \end{bmatrix}\right)=a-b,\ \forall\begin{bmatrix} a & b \\ b & a \end{bmatrix}\in R$ is

ring homomorhism with respect to addition. Then Ker $\phi=$

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

76439041065. $\left\{\begin{bmatrix} a & b \\ a & a \end{bmatrix} / a\in\mathbb{Z}\right\}$

76439041066. $\left\{\begin{bmatrix} a & b \\ b & a \end{bmatrix} / a,b\in\mathbb{Z}\right\}$

76439041067. $\left\{\begin{bmatrix} b & a \\ a & b \end{bmatrix} / a,b\in\mathbb{Z}\right\}$

76439041068. $\left\{\begin{bmatrix} a & a \\ b & b \end{bmatrix} / a,b\in\mathbb{Z}\right\}$

Question Number : 68 Question Id : 76439010288 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $\phi: R \to S$ be a ring homomorphism. Then ϕ is isomorphism if,

Options :

76439041069. ✖ $\text{Ker } \phi = 5$

76439041070. ✖ $\text{Ker } \phi = \{1\}$

76439041071. ✔ $\text{Ker } \phi = \{0\}$

76439041072. ✖ $\text{Ker } \phi = R$

Question Number : 69 Question Id : 76439010289 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $\phi: R \to S$, be a ring homomorphism. Then the mapping $g: \frac{R}{Ker\phi} \to \phi(R)$ is

Options :

76439041073. ✖ only monomorphism

76439041074. ✔ isomorphism

76439041075. ✖ only homomorphism

76439041076. ✖ only automorphism

Question Number : 70 Question Id : 76439010290 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $f(x) = 4 + 3x + 5x^2 + 3x^3$ and $g(x) = 2 + x + 4x^2 + 3x^3$ where $f(x), g(x) \in Z_6[x]$.
Then $f(x) + g(x) =$

Options :

76439041077. ✖ $5x^3 + 2x^2 + 4$

76439041078. ✖ $x^3 + x^2 + 7$

76439041079. ✔ $3x^2 + 4x$

$4x^3+3x+2$

76439041080. ✖

Question Number : 71 Question Id : 76439010291 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following set of vectors is not a subspace of R^3,(a, b are arbitrary real numbers)

Options :

76439041081. ✖ $\begin{bmatrix} a \\ -3a \\ b \end{bmatrix}$

76439041082. ✖ $\begin{bmatrix} 2a+b \\ 0 \\ a-b \end{bmatrix}$

76439041083. ✔ $\begin{bmatrix} a+b \\ 2 \\ a-3b \end{bmatrix}$

76439041084. ✖ $\begin{bmatrix} b-2a \\ b \\ 2a+3b \end{bmatrix}$

Question Number : 72 Question Id : 76439010292 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $W=\left\{\begin{bmatrix} 3a+b \\ a-2b \\ -7a \end{bmatrix} : a,b \in R\right\}$, then a matrix A such that W =column space of A is

Options :

76439041085. ✖ $\begin{bmatrix} 3 & 1 & -7 \\ 1 & -2 & 0 \end{bmatrix}$

76439041086. ✔ $\begin{bmatrix} 3 & 1 \\ 1 & -2 \\ -7 & 0 \end{bmatrix}$

76439041087. ✖ $\begin{bmatrix} 1 & 3 \\ -2 & 1 \\ -7 & 0 \end{bmatrix}$

76439041088. ✖ $\begin{bmatrix} 1 & -2 & 0 \\ 3 & 1 & -7 \end{bmatrix}$

Question Number : 73 Question Id : 76439010293 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The null space of $A = \begin{bmatrix} -1 & 0 & 3 & 2 \end{bmatrix}$ is a subspace of R^k, then k=

Options :

76439041089. ✖ 0

76439041090. ✔ 4

76439041091. ✖ 1

76439041092. ✖ 3

Question Number : 74 Question Id : 76439010294 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The linear transformation $T : R^2 \to R^2$ is defined by $T(x, y) = (x, 0)$, then T^2 is

Options :

76439041093. ✔ T^2

76439041094. ✖ $2T$

76439041095. ✔ T^3

76439041096. ✔ T

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 75 Question Id : 76439010295 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The set {u, v, w} is linearly dependent set of vectors, where

$$u=\begin{pmatrix}2\\0\\-1\end{pmatrix}, v=\begin{pmatrix}3\\1\\0\end{pmatrix}, w=\begin{pmatrix}1\\-1\\c\end{pmatrix}: c \in R.$$ Then c=

Options :

76439041097. ✖ 0

76439041098. ✔ -2

76439041099. ✖ -1

76439041100. ✖ 4

Question Number : 76 Question Id : 76439010296 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Given $B=\{b_1,b_2\}$ is a basis for R^2 where $b_1=\begin{bmatrix}1\\-2\end{bmatrix}, b_2=\begin{bmatrix}1\\-1\end{bmatrix}, x=\begin{bmatrix}2\\0\end{bmatrix}$. then the coordinate

vector $[x]_B$ of x relative to B is

Options :

76439041101. ✔ $\begin{bmatrix}-2\\4\end{bmatrix}$

76439041102. ✖ $\begin{bmatrix}-2\\0\end{bmatrix}$

76439041103. ✖ $\begin{bmatrix}4\\2\end{bmatrix}$

76439041104. $\begin{bmatrix} 2 \\ -1 \end{bmatrix}$

Question Number : 77 Question Id : 76439010297 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The dimension of the subspace $H = \left\{ \begin{bmatrix} a-2b \\ a+b \\ 3b \end{bmatrix} : a,b \in R \right\}$ is

Options :

76439041105. 0

76439041106. 1

76439041107. ✔ 2

76439041108. 3

Question Number : 78 Question Id : 76439010298 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $A = \begin{bmatrix} 1 & 0 & 1 \\ -1 & 2 & 1 \\ 0 & 1 & 1 \end{bmatrix}$, then dim Null A=

Options :

76439041109. ✔ 1

76439041110. 2

76439041111. 0

76439041112. 3

Question Number : 79 Question Id : 76439010299 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If A is a 5x7 matrix with a two dimensional null space, then rank A =

Options :

76439041113. ✔ 5

76439041114. ✖ 7

76439041115. ✖ 3

76439041116. ✖ 2

Question Number : 80 Question Id : 76439010300 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $B=\{b_1,b_2\}$ and $C=\{c_1,c_2\}$ be two bases for vector space V, and $b_1=3c_1-c_2, b_2=2c_1+5c_2$

Then the change of coordinate matrix from B to C is

Options :

76439041117. ✖ $\begin{bmatrix} 3 & 5 \\ -1 & 2 \end{bmatrix}$

76439041118. ✖ $\begin{bmatrix} -1 & 2 \\ 3 & 5 \end{bmatrix}$

76439041119. ✖ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$

76439041120. ✔ $\begin{bmatrix} 3 & 2 \\ -1 & 5 \end{bmatrix}$

Question Number : 81 Question Id : 76439010301 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $A=\begin{bmatrix} 1 \\ -2 \\ 1 \end{bmatrix}$ is an eigen vector of $\begin{bmatrix} 3 & 6 & 7 \\ 3 & 3 & 7 \\ 5 & 6 & 5 \end{bmatrix}$, then the corresponding eigen value is

Options :

76439041121. ✖ 1

76439041122. ✖ 0

76439041123. ✔ -2

76439041124. ✖ 3

Question Number : 82 Question Id : 76439010302 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $A=\begin{bmatrix}0 & 1 & 0\\ 0 & 0 & 1\\ 0 & 7 & 0\end{bmatrix}$, then $A^3=$

Options :

76439041125. ✖ A

76439041126. ✖ 3A

76439041127. ✔ 7A

76439041128. ✖ I (Indentity matrix)

Question Number : 83 Question Id : 76439010303 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $A=\begin{bmatrix}1 & -1 & 0\\ 0 & -2 & 3\\ 0 & 0 & 3\end{bmatrix}$ and $P=[X_1X_2X_3]$, where X_1, X_2, X_3 are orthonormal eigen vectors of A, and $PDP^{-1}=A$, then $D^2=$

Options :

76439041129. ✖ $\begin{bmatrix}1 & -1 & 0\\ 0 & -2 & 3\\ 0 & 0 & 3\end{bmatrix}$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 4 & 0 \\ 0 & 0 & 9 \end{bmatrix}$$

76439041130. ✔

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

76439041131. ✖

$$\begin{bmatrix} 1 & 1 & 0 \\ 0 & 4 & 9 \\ 0 & 0 & 9 \end{bmatrix}$$

76439041132. ✖

Question Number : 84 Question Id : 76439010304 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $T:V\to W$ be a linear transformation with the property $T(b_1)=c_1-c_2$, $T(b_2)=-c_1+2c_2$,

$T(b_3)=3c_2$; then the matrix M for T relative to basis $B=\{b_1,b_2,b_3\}$ of V and $C=\{c_1,c_2\}$

of W is

Options :

$$M=\begin{bmatrix} 1 & -1 & 0 \\ -1 & 2 & 3 \end{bmatrix}$$

76439041133. ✔

$$M=\begin{bmatrix} 1 & -1 & 3 \\ -1 & 0 & 2 \end{bmatrix}$$

76439041134. ✖

$$M=\begin{bmatrix} -1 & 1 & 0 \\ 2 & 0 & -1 \end{bmatrix}$$

76439041135. ✖

$$M=\begin{bmatrix} -1 & 1 & 3 \\ 1 & 2 & 3 \end{bmatrix}$$

76439041136. ✖

Question Number : 85 Question Id : 76439010305 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The eigen values of $A=\begin{bmatrix}1 & -2\\ 1 & 3\end{bmatrix}$ are

Options :

76439041137. ✖ $1\pm i$

76439041138. ✖ $-1\pm i$

76439041139. ✔ $2\pm i$

76439041140. ✖ $3\pm i$

Question Number : 86 Question Id : 76439010306 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If u and v are orthogonal unit vectors in R^n. then $\|u-v\|=$

Options :

76439041141. ✖ 1

76439041142. ✖ 0

76439041143. ✖ 2

76439041144. ✔ $\sqrt{2}$

Question Number : 87 Question Id : 76439010307 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Distance between the vectors $u=\begin{bmatrix}7\\ 1\end{bmatrix}$ and $v=\begin{bmatrix}3\\ -2\end{bmatrix}$ is

Options :

76439041145. ✔ 5

76439041146. ✖ 4

76439041147. ✖ 11

76439041148. ✖ 9

Question Number : 88 Question Id : 76439010308 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\|u+v\|^2-\|u-v\|^2=$

Options :

76439041149. ✖ 0

76439041150. ✔ $4(u.v)$

76439041151. ✖ $2\|u\|^2+2\|v\|^2$

76439041152. ✖ 1

Question Number : 89 Question Id : 76439010309 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

A vector orthogonal to $\begin{bmatrix}2\\-3\\3\end{bmatrix}$ among the following is

Options :

76439041153. ✖ $\begin{bmatrix}3\\-3\\2\end{bmatrix}$

76439041154. ✖ $\begin{bmatrix}3\\2\\7\end{bmatrix}$

76439041155. ✔ $\begin{bmatrix}12\\3\\-5\end{bmatrix}$

76439041156. ✖ $\begin{bmatrix}8\\-2\\2\end{bmatrix}$

Question Number : 90 Question Id : 76439010310 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not an orthonormal set.

Options :

76439041157. $\begin{pmatrix}3/5\\0\\4/5\end{pmatrix},\begin{pmatrix}0\\1\\0\end{pmatrix}$

76439041158. $\begin{pmatrix}1/\sqrt{2}\\0\\-1/\sqrt{2}\end{pmatrix},\begin{pmatrix}0\\1\\0\end{pmatrix}$

76439041159. $\begin{pmatrix}1\\0\\0\end{pmatrix},\begin{pmatrix}0\\1\\0\end{pmatrix}$

76439041160. $\begin{pmatrix}1/\sqrt{2}\\-1/\sqrt{2}\\0\end{pmatrix},\begin{pmatrix}1/\sqrt{3}\\-1/\sqrt{3}\\1/\sqrt{3}\end{pmatrix}$

Question Number : 91 Question Id : 76439010311 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The second iterate to the root of $f(x)=x^3+2x-7=0$, by using bisection method in the interval [1,2] is

Options :

76439041161. 7/4

76439041162. 5/4

76439041163. 6/4

76439041164. 11/10

Question Number : 92 Question Id : 76439010312 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The fixed points of the polynomial $g(x)=x^2-42$ is

Options :

76439041165. ✖ 2,4

76439041166. ✖ 8,-7

76439041167. ✔ -6,7

76439041168. ✖ -3,4

Question Number : 93 Question Id : 76439010313 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following is Newtons iteration formula to find $\frac{1}{N}$ (where N >0).

Options :

76439041169. ✖ $p_{n+1}=2p_n+Np_n^2$

76439041170. ✔ $p_{n+1}=2p_n-Np_n^2$

76439041171. ✖ $p_{n+1}=2p_n-Np_n^3$

76439041172. ✖ $p_{n+1}=2p_n-Np_n^4$

Question Number : 94 Question Id : 76439010314 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If $x=-\frac{5}{2}$ is the initial guess root of $x^2-6=0$, then the second iterate root is

Options :

76439041173. ✖ $\frac{49}{20}$

76439041174. $-\frac{1256}{800}$

76439041175. -3

76439041176. ✔ $-\frac{4801}{1960}$

Question Number : 95 Question Id : 76439010315 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Let $f(x)=e^x-x-1$, Then at $x=0, f$ has a zero of multiplicity

Options :

76439041177. ✔ 2

76439041178. ✖ 1

76439041179. ✖ 3

76439041180. ✖ 0

Question Number : 96 Question Id : 76439010316 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A linear polynomial using Lagranges interpolating formula which fits the following data is.

x	0	1	2
$F(x)$	2	1	0

Options :

76439041181. ✖ $x-3$

76439041182. ✖ $2x+3$

76439041183. ✖ $2x+1$

76439041184. ✔ $-x+2$

Question Number : 97 Question Id : 76439010317 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let $f(x)=\frac{1}{x^2}$. The Newtons divided difference value for $[x_o, x_1]$ is

Options :

76439041185. $\frac{-(x_o+x_1)}{x_o^2 x_1^2}$ ✔

76439041186. $\frac{x_o}{x_o^2+x_1^2}$ ✖

76439041187. $\frac{x_o^2+x_1^2}{x_o x_1}$ ✖

76439041188. $\frac{x_o x_1}{x_o+x_1}$ ✖

Question Number : 98 Question Id : 76439010318 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

$\Delta^2 f(1)$ from the following data is

x	1	2	3
$f(x)$	3	8	0

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

76439041189. 1

76439041190. 4

76439041191. 2

76439041192. 3

Question Number : 99 Question Id : 76439010319 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Approximate value of $\int_0^3 x^3 dx$ as a sum of areas of 3 trapeziums is

Options :

76439041193. ✖ 28

76439041194. ✔ 22.5

76439041195. ✖ 24.5

76439041196. ✖ 23.25

Question Number : 100 Question Id : 76439010320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The approximate value of $\tan^{-1} 2$ from Simpsons rule on $\int_0^2 \frac{1}{1+x^2} dx$ is

Options :

76439041197. ✖ 1/15

76439041198. ✖ 2/15

76439041199. ✖ 7/15

76439041200. ✔ 16/15

Analytical Ability

Section Id :	764390201
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	33
Number of Questions to be attempted :	33
Section Marks :	50
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	764390226
Question Shuffling Allowed :	Yes

Question Id : 76439010321 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (101 to 110)

On the right side, a question followed by two statements I and II are given. Answer the following 10 questions by selecting one of the options 1,2,3,4 as follows

1. Select option 1, if the data given is Statement I alone is sufficient to answer the question
2. Select option 2, if the data given in Statement II alone is sufficient to answer the question
3. Select option 3, if the data given in both Statements I and Statement II put together are sufficient but neither of the statements alone is sufficient to answer the question
4. Select option 4, if the data given in both Statements I and Statement II put together are not sufficient and additional data is needed to answer the question.

Sub questions

Question Number : 101 Question Id : 76439010322 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Who is the tallest student in the class?

I: Bob is the tallest boy in the class
II: Geetha is the shorter than two boys in the class

Options:

Options :

76439041201. ✖ 1

76439041202. ✖ 2

76439041203. ✖ 3

76439041204. ✔ 4

Question Number : 102 Question Id : 76439010323 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If 100 people were invited to a function, how many attended?

I: Not more than 40 failed to respond to the invitation.

II: Not more than 60 attended.

Options:

Options :

76439041205. ✗ 1

76439041206. ✗ 2

76439041207. ✓ 3

76439041208. ✗ 4

Question Number : 103 Question Id : 76439010324 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Did Bob kill the women?

I: In the court Bob was convicted of killing the women.

II: witness says that the court judgement was fair.

Options:

Options :

76439041209. ✗ 1

76439041210. ✗ 2

76439041211. ✗ 3

76439041212. ✓ 4

Question Number : 104 Question Id : 76439010325 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What day is the fourteenth of a Given month?

I: The last day of month is Wednesday.

II: The 3rd Saturday of the month is seventeenth.

Options:

Options :

76439041213. ✗ 1

76439041214. ✓ 2

76439041215. ✗ 3

76439041216. ✗ 4

Question Number : 105 Question Id : 76439010326 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What time did the train leave today?

I: the train normally leaves on time.

II: The scheduled departure is at 14-30 hrs.

Options:

Options :

76439041217. ✖ 1

76439041218. ✖ 2

76439041219. ✖ 3

76439041220. ✔ 4

Question Number : 106 Question Id : 76439010327 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What is arun's age?

I: Arun, Bob and Charan are all of the same age.

II: Total age of Bob, Charan and Duha is 36 and Duha is as old as Bob and Charan together.

Options:

Options :

76439041221. ✖ 1

76439041222. ✖ 2

76439041223. ✔ 3

76439041224. ✖ 4

Question Number : 107 Question Id : 76439010328 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The Principal visits one department on Monday of every week except for the Monday of the third week of every month. when did he visit the purchase department?

I: He visited Accounts department in the second week of the March after having visited purchase department on the earlier occasion.

II: He had visited purchase department immediately after visiting stores department but before visiting Accounts department.

Options:

Options :

76439041225. ✔ 1

76439041226. ✖ 2

76439041227. ✖ 3

76439041228. ✖ 4

Question Number : 108 Question Id : 76439010329 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

How many pages of the book ABCD did Alice read on Sunday?

I: The Book has 600 pages out of which two-third were read by him before Sunday.

II: Alice read the last 80 pages of the book on the morning of Monday.

Options:

Options :

76439041229. ✖ 1

76439041230. ✖ 2

76439041231. ✔ 3

76439041232. ✖ 4

Question Number : 109 Question Id : 76439010330 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

How many sons does D have?

I: A's father has four children.

II: B is A's brother and son of D.

Options:

Options :

76439041233. ✖ 1

76439041234. ✖ 2

76439041235. ✖ 3

76439041236. ✔ 4

Question Number : 110 Question Id : 76439010331 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which day of the last week did Alice meet Bob at Bob's residence?

I: Bob was out of town from Monday to Wednesday. He returned on Thursday morning.

II: On Friday night Alice telephoned his friend to inform that only yesterday he had got approved of Bob after personally explaining to him all the details.

Options:

Options :

76439041237. ✖ 1

76439041238. ✔ 2

76439041239. ✖ 3

76439041240. ✖ 4

Sub-Section Number : 2

Sub-Section Id : 764390227

Question Shuffling Allowed : Yes

Question Number : 111 Question Id : 76439010332 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The missing number in the following sequence is

6, 9, 18, 45, 135, ?, 1890.

Options :

76439041241. ✔ 472.5

76439041242. ✖ 290

76439041243. ✖ 270.5

76439041244. ✖ 319.5

Question Number : 112 Question Id : 76439010333 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The next number in the following series is

5, 12, 34, 73, 141, ____.

Options :

76439041245. ✖ 216

76439041246. ✖ 276

76439041247. ✔ 236

76439041248. ✖ 356

Question Number : 113 Question Id : 76439010334 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The odd set from the following 4 sets of letters is

(i) {T, B, L, R}

(ii) {F, N, X, D}

(iii) {I, Q, A, G}

(iv) {N, V, F, K}

Options :

76439041249. ✖ (i)

76439041250. ✖ (ii)

76439041251. ✖ (iii)

76439041252. ✔ (iv)

Question Number : 114 Question Id : 76439010335 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The next term is the sequence 4C, 16E, 23H, 22K, _____ is

Options :

76439041253. ✔ 17 L

76439041254. ✖ 15 L

76439041255. ✖ 15 M

76439041256. ✖ 17 M

Question Number : 115 Question Id : 76439010336 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The wrong number is the series 7, 17, 32, 58, 93, 141, 206 is

Options :

76439041257. ✔ 141

76439041258. ✖ 206

76439041259. ✖ 17

76439041260. ✖ 58

Question Number : 116 Question Id : 76439010337 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The odd set out of the following four sets of numbers is

A = {89,99,109,129,139}

B = {127,137,147,157,167}

C= {31,41,51,61,71}

D= {13,23,33,43,53}

Options :

76439041261. ✔ A

76439041262. ✖ B

76439041263. ✖ C

76439041264. ✖ D

Question Number : 117 Question Id : 76439010338 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The next number in the series 7, 26, 63, 24, 15, 42 is

Options :

76439041265. ✖ 12

76439041266. ✖ 21

76439041267. ✖ 81

76439041268. ✔ 11

Question Number : 118 Question Id : 76439010339 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The next number letter sequence, in the series 23DQ, 14FS, 13 GT, 16 IV is

Options :

76439041269. ✖ 26 KX

76439041270. ✔ 27 KX

76439041271. ✖ 14 MZ

76439041272. ✖ 10 MZ

Question Number : 119 Question Id : 76439010340 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

In the series -4, $\frac{5}{2}$, 9, ---------- , if the k^{th} term is 93.5, then $k =$

Options :

76439041273. ✖ 14^{th}

76439041274. ✖ 15^{th}

76439041275. ✖ 17^{th}

76439041276. ✔ 16^{th}

Question Number : 120 Question Id : 76439010341 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the list of letters A, C, E, G, H is in an Arithmetic sequence, then the lists which are not in Arithmetic sequence, is/are

I: A+2, C-5, E-12, G-19, H-26

II: A^2, C^2, E^2, G^2, H^2

III: A-2, C-7, E-2, G-7, H-2

Options :

76439041277. ✖ Only III

76439041278. ✖ I, II, III

76439041279. ✖ I, II

76439041280. ✔ II, III

Sub-Section Number :	3
Sub-Section Id :	764390228
Question Shuffling Allowed :	Yes

Question Id : 76439010342 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (121 to 125)

Answer the following 5 questions as per the data given in the following Table.

Table: Income of employees of different categories in a company per month

Source of income	Employees				
	P	Q	R	S	T
Salary	21000	12000	12000	9000	6000
Bonus	4500	3000	2400	2400	1200
Overtime	6000	6000	5400	5100	2100
Arrears	12000	7500	6000	4200	5400
Miscellaneous	1500	1500	1200	300	300
Total	45000	30000	27000	21000	15000

Sub questions

Question Number : 121 Question Id : 76439010343 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The employee having minimum ratio of arrears to income from salary among the following

is

Options :

76439041281. ✖ R

76439041282. ✖ T

76439041283. ✖ P

76439041284. ✔ S

Question Number : 122 Question Id : 76439010344 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. The number of employees who have their salary strictly less than four times the income

from bonus is

Options :

76439041285. ✖ 0

76439041286. ✔ 1

76439041287. ✖ 3

76439041288. ✖ 2

Question Number : 123 Question Id : 76439010345 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. The percentage of the income from overtime out of the income from arrears for

category Q employees is

Options :

76439041289. ✖ 16

76439041290. ✔ 80

76439041291. ✖ 20

76439041292. ✖ 125

Question Number : 124 Question Id : 76439010346 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ratio of the sum of the salaries of all the employees is to the total of overtime of all the employees is

Options :

76439041293. ✔ 100:41

76439041294. ✖ 41:100

76439041295. ✖ 82:50

76439041296. ✖ 50:82

Question Number : 125 Question Id : 76439010347 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The percentage of the Bonus of the employee in R his arears is

Options :

76439041297. ✖ 25

76439041298. ✔ 40

76439041299. ✖ 36

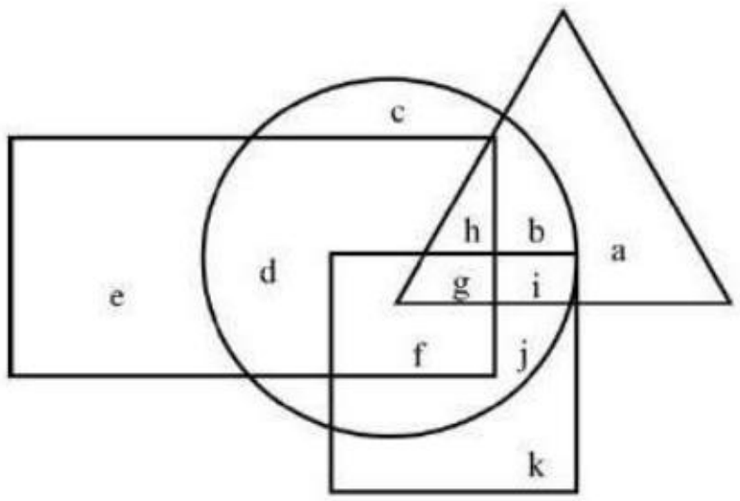
76439041300. ✖ 52

Sub-Section Number :	4
Sub-Section Id :	764390229
Question Shuffling Allowed :	Yes

Question Id : 76439010348 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (126 to 130)

Answer the following 5 questions from the following venn diagram



The rectangle, the square, the circle, and the triangle represent the cultivation regions of Pomegranate, Grape, Mango and Apple respectively.

Sub questions

Question Number : 126 Question Id : 76439010349 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The label of the area that represents the cultivation of all the four fruits is

Options :

76439041301. ✔ g

76439041302. ✖ h

76439041303. ✖ i

76439041304. ✖ b

Question Number : 127 Question Id : 76439010350 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The label of the area that represents the cultivation of Pomegranate and Mango only is

Options :

76439041305. ✖ h

76439041306. ✖ f

76439041307. ✖ e

76439041308. ✔ d

Question Number : 128 Question Id : 76439010351 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes

Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The label of the area that represents the cultivation of only Apple is

Options :

76439041309. ✖ e

76439041310. ✔ a

76439041311. ✖ b

76439041312. ✖ k

Question Number : 129 Question Id : 76439010352 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The label of the area that represents the cultivation of Mango and Apple is

Options :

76439041313. ✖ i

76439041314. ✖ h

76439041315. ✔ b

76439041316. ✖ g

Question Number : 130 Question Id : 76439010353 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The label of the area that represents the cultivation of mangos other than the remaining three fruits is

Options :

76439041317. ✖ d

76439041318. ✖ g

76439041319. ✖ b

76439041320. ✔ c

Sub-Section Number :	5
Sub-Section Id :	764390230
Question Shuffling Allowed :	Yes

Question Number : 131 Question Id : 76439010354 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a certain code language HILLOCK is coded as HOCLILK, Then CURTAIN is coded

as

Options :

76439041321. ✔ CAITURN

76439041322. ✖ CIAUTRN

76439041323. ✖ CTNIAUR

76439041324. ✖ CNAUTRI

Question Number : 132 Question Id : 76439010355 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If FRIEND is coded as HPKCPB, then CANDLE is written in that code as

Options :

76439041325. ✖ EPYBCN

76439041326. ✖ EBPYNC

76439041327. ✔ EYPBNC

76439041328. ✖ EYBNPC

Question Number : 133 Question Id : 76439010356 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If y=50 and BAT=46 then GOA =

Options :

76439041329. ✖ 34

76439041330. ✔ 46

76439041331. ✖ 28

76439041332. ✖ 52

Question Number : 134 Question Id : 76439010357 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes

Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If BARS =10 and BEERT=10 then DEEZ=

Options :

76439041333. ✖ 12

76439041334. ✖ 15

76439041335. ✖ 14

76439041336. ✔ 10

Question Number : 135 Question Id : 76439010358 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If PEN= 32, PAPER = 51 then COMPUTER =

Options :

76439041337. ✔ 103

76439041338. ✖ 140

76439041339. ✖ 180

76439041340. ✖ 111

Question Number : 136 Question Id : 76439010359 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If FAN is written as 84, CAN is written as 42 and PAD is written as 64. then 32 is for

Options :

76439041341. ✔ HAD

76439041342. ✖ BAD

76439041343. ✖ CAD

76439041344. ✖ MAD

Question Number : 137 Question Id : 76439010360 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

In a certain code language 13576 is written as 29203536, then 24687 is written as

Options :

76439041345. ✖ 412420403

76439041346. ✔ 412244042

76439041347. ✖ 421044032

76439041348. ✖ 412034024

Question Number : 138 Question Id : 76439010361 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a certain code language CINEMA is coded as 978625 and CURTAIN is coded as

9143578 then TRAIN is coded as

Options :

76439041349. ✖ 38457

76439041350. ✖ 35478

76439041351. ✔ 34578

76439041352. ✖ 34587

Question Number : 139 Question Id : 76439010362 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If Book is called Table, Table is called Computer, Computer is called Tree, Tree is called

Spoon, then the one called as tree is

Options :

76439041353. ✔ Computer

76439041354. ✖ Spoon

76439041355. ✖ Tree

76439041356. ✖ Book

Question Number : 140 Question Id : 76439010363 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In certain language 'mot nuk uds' means Mangoes are Good; 'nuk poj ebn' means Good for Health; 'tum mot gck' means Mangoes and Bananas, then the word in that language which means 'Mangoes' is

Options :

76439041357. ✖ tum

76439041358. ✖ ebn

76439041359. ✖ gek

76439041360. ✔ mot

Question Number : 141 Question Id : 76439010364 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If today is Friday , the day after 61 days will be

Options :

76439041361. ✖ Friday

76439041362. ✖ Thursday

76439041363. ✔ Wednesday

76439041364. ✖ Saturday

Question Number : 142 Question Id : 76439010365 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Between 3'0 clock ad 4'o clock both the hands of a clock are in a straight line pointing in opposite direction at the instant of time

Options :

76439041365. ✔ $3 \text{ hr } 49\frac{1}{11} \text{ min}$

76439041366. ✖ $3 \text{ hr } 42\frac{1}{11} \text{ min}$

76439041367. ✖ $3 \text{ hr } 51\frac{3}{11} \text{ min}$

76439041368. ✖ $3 \text{ hr } 15\frac{2}{11} \text{ min}$

Question Number : 143 Question Id : 76439010366 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If C is the brother of A , B is the daughter of A, E is the sister C, D is the brother of B,

the uncle of D is

Options :

76439041369. ✖ A

76439041370. ✔ C

76439041371. ✖ E

76439041372. ✖ B

Question Number : 144 Question Id : 76439010367 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If Adi is Manjula's son, Shiva's daughter is Manjula, Yuvika is Mahender's daughter,

Anjali is Mahender's sister and Shiva is Anjali's father wife's brother, then Manjula

is Anjali's.

Options :

76439041373. ✖ Sister

76439041374. ✔ Cousin

76439041375. ✖ Mother

76439041376. ✖ Grand mother

Question Number : 145 Question Id : 76439010368 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Five buses P, Q, R, S and T arrive at a bus depot in five different timings as given below

(i) P comes immediately after T

(ii) Exactly three buses arrive at the depot between Q and S

(iii) T comes immediately after Q

Then the bus that arrives fourth from the starting is

Options :

76439041377. ✖ P

76439041378. ✖ T

76439041379. ✔ R

76439041380. ✖ S

Question Number : 146 Question Id : 76439010369 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Read the following information regarding the positions of A, B, C, D and E

(i) A is left to C but right to D. (ii) D is right of S, (iii) E is right of C. The person in

the middle position is

Options :

76439041381. ✖ C

76439041382. ✔ A

76439041383. ✖ D

76439041384. ✖ E

Question Number : 147 Question Id : 76439010370 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If A stands for not equal to (≠) ; B stands for greater than (>); C stands for not less than

(≮); D stands for equal to (=) ; E stands for not greater than (≯); F stands for less than

(<) ; then (4x F 5y) & (5y E 3s) imply

Options :

76439041385. ✔ 4x A 3s

76439041386. ✖ 4x B 3s

76439041387. ✖ 4x C 3s

76439041388. ✖ 4x D 3s

Question Number : 148 Question Id : 76439010371 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If * stands for subtraction, > stands for addition, = stands for multiplication, + stands for division, -stands for greater than, ÷ stands for equal to , then

Options :

76439041389. ✖ 4*6 =2÷3*12>12

76439041390. ✔ 10+5=5÷9*3>4

76439041391. ✖ 15=2*5÷12+4>3

76439041392. ✖ 13+13>1÷20*5=2

Question Number : 149 Question Id : 76439010372 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Six boys Anand, Babu, Charles, David, Edward and George are standing in a straight line in the following manner. Charles is in between Anand and George. Babu is right to Edward, David and Charles have two boys in between them. George is in between Charles and Edward, then the person on the extreme right is

Options :

76439041393. ✔ Babu

76439041394. ✖ Anand

76439041395. ✖ Charles

76439041396. ✖ George

Question Number : 150 Question Id : 76439010373 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

There are three routes, 21, 25, 72. On route 21, the bus comes every 10 minutes; on route 25, it comes every 20 minutes and on route 72, it comes every 40 minutes. A bus has just left the stop when a student arrived. The minimum time the student has to wait to get another bus is

Options :

76439041397. ✖ 5 min

76439041398. ✖ 20 min

76439041399. ✖ 40 min

76439041400. ✔ 10 min

Communicative English

Section Id :	764390202
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	46
Number of Questions to be attempted :	46
Section Marks :	50
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	764390231
Question Shuffling Allowed :	Yes

Question Number : 151 Question Id : 76439010374 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the synonym for the word 'Location" from the choices given:

Options :

76439041401. ✖ raw

76439041402. ✔ site

76439041403. ✔ situation

76439041404. ✖ top

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 152 Question Id : 76439010375 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the synonym for the word ''Adverse" from the choices given:

Options :

76439041405. ✖ necessary

76439041406. ✖ mandatory

76439041407. ✖ fruitful

76439041408. ✔ unfavourable

Question Number : 153 Question Id : 76439010376 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the synonym for the word 'Manage" from the choices given

Options :

76439041409. ✔ arrange

76439041410. ✖ rise

76439041411. ✔ control

76439041412. ✖ shout

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 154 Question Id : 76439010377 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the antonym for the word "ancient" from the choices given

Options :

76439041413. ✖ latent

76439041414. ✖ old

76439041415. ✔ recent

76439041416. ✖ historical

Question Number : 155 Question Id : 76439010378 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the antonym for the word "confident" from the choices given

Options :

76439041417. ✖ reserved

76439041418. ✖ sky

76439041419. ✔ timid

76439041420. ✔ diffident

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 156 Question Id : 76439010379 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the antonym for the word "genuine" from the choices given

Options :

76439041421. ✖ correction

76439041422. ✖ germinate

76439041423. ✖ chaste

76439041424. ✔ fake

Question Number : 157 Question Id : 76439010380 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following words is spelt correctly?

Options :

76439041425. ✖ Objictive

76439041426. ✖ Objicteve

76439041427. ✔ Objective

76439041428. ✖ Objecteve

Question Number : 158 Question Id : 76439010381 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following words is spelt correctly?

Options :

76439041429. ✔ tactful

76439041430. ✖ tactfull

76439041431. ✖ tectful

76439041432. ✖ tactfil

Question Number : 159 Question Id : 76439010382 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following words is spelt correctly?

Options :

76439041433. ✔ liberal

76439041434. ✖ liberial

76439041435. ✖ libarel

76439041436. ✖ libaril

Question Number : 160 Question Id : 76439010383 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find one word substitute for a person interested in reading books and nothing else.

Options :

76439041437. ✖ book-keeper

76439041438. ✔ bookworm

76439041439. ✖ scholar

76439041440. ✖ student

Question Number : 161 Question Id : 76439010384 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find one word substitute for an instrument for viewing objects at a distance

Options :

76439041441. ✔ telescope

76439041442. ✖ microscope

76439041443. ✖ periscope

76439041444. ✖ kaleidoscope.

Question Number : 162 Question Id : 76439010385 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find one word substitute for a person who does not believe in the existence of God

Options :

76439041445. ✖ theist

76439041446. ✖ heretic

76439041447. ✖ fanatic

76439041448. ✔ athiest

Question Number : 163 Question Id : 76439010386 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find the right word for the blank to make it a meaningful sentence:

He walked all the way despite the _____in the sole of his right shoe

Options :

76439041449. ✖ whole

76439041450. ✔ hole

76439041451. ✖ Heal

76439041452. ✖ Heel

Question Number : 164 Question Id : 76439010387 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find the right word for the blank to make it a meaningful sentence:

I watched the movie; I _____ how it ends.

Options :

76439041453. ✖ no

76439041454. ✔ know

76439041455. ✖ now

76439041456. ✖ knew

Question Number : 165 Question Id : 76439010388 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find the right word for the blank to make it a meaningful sentence:

After Emma passed the driver's test, she drove _____ all her friend's houses, honking her horn.

Options :

76439041457. ✔ past

76439041458. ✖ paused

76439041459. ✖ Passed

76439041460. ✖ pasted

Question Number : 166 Question Id : 76439010389 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the word nearest in meaning to the underlined idiom in the sentence below:

The cricket match proved to be a big draw.

Options :

76439041461. ✖ a keen contest

76439041462. ✔ a huge attraction

76439041463. ✖ a goal-less match

76439041464. ✖ A game without any result

Question Number : 167 Question Id : 76439010390 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the word nearest in meaning to the idiom, "a wet blanket".

Options :

76439041465. ✖ a man who is always drunk

76439041466. ✖ a new born baby

76439041467. ✖ a blanket that is wet

76439041468. ✔ a person who discourages enjoyable activity

Question Number : 168 Question Id : 76439010391 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the word nearest in meaning to the idiom, " back out"

Options :

76439041469. ✖ step aside

76439041470. ✖ pack up

76439041471. ✖ support

76439041472. ✔ withdraw from

Question Number : 169 Question Id : 76439010392 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the word nearest in meaning to the idiom, " Play it safe"

Options :

76439041473. ✔ Avoid risks

76439041474. ✖ play a game peacefully

76439041475. ✖ play light games

76439041476. ✖ play for pleasure

Question Number : 170 Question Id : 76439010393 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the word nearest in meaning to the idiom, "crocodile tears"

Options :

76439041477. ✔ pretend sadness

76439041478. ✖ a weeping sign

76439041479. ✖ mild regret

76439041480. ✖ very gloomy

Question Number : 171 Question Id : 76439010394 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blank with an appropriate article

We came across a little bubbling stream, the stream flowed through ____ wooded valley.

Options :

76439041481. ✔ a

76439041482. ✖ No article is required

76439041483. ✖ An

76439041484. ✖ The

Question Number : 172 Question Id : 76439010395 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with appropriate articles

____ nucleus of _____ atom holds_____ positive charge and has a specific number of protons and neutrons.

Options :

76439041485. ✖ A, an, the

76439041486. ✖ the, an, the

76439041487. ✖ A, an, a

76439041488. ✔ the, an, a

Question Number : 173 Question Id : 76439010396 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with appropriate articles

Once upon a time, there lived _____ farmer in _____ village. _____ farmer had a son and a daughter.

Options :

76439041489. ✖ the, a, no article is required

76439041490. ✖ the, a, The

76439041491. ✔ a, a, The

76439041492. ✖ a, an, The

Question Number : 174 Question Id : 76439010397 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blank with an appropriate preposition

He plays Tennis____ Basketball and Football.

Options :

76439041493. ✖ among

76439041494. ✔ besides

76439041495. ✖ upon

76439041496. ✖ beside

Question Number : 175 Question Id : 76439010398 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with appropriate prepositions

We were really surprised_____ the price _____food _____ restaurants on our holiday.

Options :

76439041497. ✖ of, to, with

76439041498. ✖ of, about, at

76439041499. ✔ at, of, in

76439041500. ✖ at, to, for

Question Number : 176 Question Id : 76439010399 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with appropriate prepositions:

I shall be there ____ 4 P.M. ____ Friday__ the function hall and will be leaving _____6 o' clock.

Options :

76439041501. ✔ at, on, in, by

76439041502. ✖ by, on, at, for

76439041503. ✖ at, on, in, till

76439041504. ✖ on, upon, in, by

Question Number : 177 Question Id : 76439010400 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with appropriate conjunctions to make the sentence meaningful

I was annoyed, ___ I kept quiet. Now, you must pay damages __ face the consequences.

Options :

76439041505. ✖ so, and

76439041506. ✖ as though, even if

76439041507. ✖ as far as, as well as

76439041508. ✔ still, or

Question Number : 178 Question Id : 76439010401 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blank with appropriate adjective

___ fool thinks he can have rights without responsibilities.

Options :

76439041509. ✖ A great many

76439041510. ✔ Many a

76439041511. ✖ Latest

76439041512. ✖ A few

Question Number : 179 Question Id : 76439010402 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks in the following sentence with a suitable pair of words given below :

_____ he _____ his wife mentioned anything about moving out of Hyderabad.

Options :

76439041513. ✖ Whether, or

76439041514. ✖ No sooner, than

76439041515. ✔ Neither, nor

76439041516. ✖ Whereas, and

Question Number : 180 Question Id : 76439010403 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the most appropriate tense from among the four options to fill in the blank in the following sentence

The doctor concluded that the man_____ killed twelve hours ago.

Options :

76439041517. ✔ had been killed

76439041518. ✖ had killed

76439041519. ✖ was killed

76439041520. ✖ has been killed

Question Number : 181 Question Id : 76439010404 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the most appropriate tense from among the four options to fill in the blank in the following sentence

I shall call you when the chairman _____ the meeting.

Options :

76439041521. ✖ will start

76439041522. ✔ starts

76439041523. ✖ is starting

76439041524. ✖ start

Question Number : 182 Question Id : 76439010405 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Fill in the blanks with the correct from of the verb given in brackets

Thomas_____ two wickets before the play was interrupted by rain.

Options :

76439041525. ✖ took

76439041526. ✖ was taking

76439041527. ✔ had taken

76439041528. ✖ had been taken

Question Number : 183 Question Id : 76439010406 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct form of the sentence verb that agrees with the subject in the following sentence

A thousand dollars ____ distributed among the prize winners last year.

Options :

76439041529. ✖ are

76439041530. ✖ have

76439041531. ✔ were

76439041532. ✖ is

Question Number : 184 Question Id : 76439010407 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Choose the correct form of the verb that agrees with the subject in the following sentence

Oil and water _____mix.

Options :

76439041533. ✖ does not

76439041534. ✔ do not

76439041535. ✖ are not

76439041536. ✖ has not

Question Number : 185 Question Id : 76439010408 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Choose the correct form of the verb that agrees with the subject in the following sentence.

Every officer and every soldier_____ to be ready to sacrifice life for the sake of the country.

Options :

76439041537. ✖ have

76439041538. ✖ were

76439041539. ✖ are

76439041540. ✔ has

Question Number : 186 Question Id : 76439010409 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Choose the grammatically correct and meaningful sentence from the options given below:

Options :

76439041541. ✖ Gymnastics are given a lot of importance on our college.

76439041542. ✖ Those who attended this discussion should consider yourself fortunate.

76439041543. ✖ Ganges is an important river.

76439041544. ✔ The principal congratulated me on my achievement.

Question Number : 187 Question Id : 76439010410 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the grammatically correct and meaningful sentence from the options given below:

Options :

76439041545. ✖ Some people prefer unemployment than work in our country.

76439041546. ✔ She did not meet him because he had gone out before she arrived.

76439041547. ✖ The principal said that honesty was the best policy.

76439041548. ✖ She said that she saw him yesterday.

Question Number : 188 Question Id : 76439010411 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the grammatically correct and meaningful sentence from the options given below:

Options :

76439041549. ✔ My father was having a nap when the phone rang.

76439041550. ✖ I know that the earth went round the sun.

76439041551. ✖ I cook. dear. Please go and answer the doorbell.

76439041552. ✖ It is raining every day for the past ten days.

Question Number : 189 Question Id : 76439010412 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the grammatically correct and meaningful sentence from the options given below:

Options :

76439041553. ✖ Our college had won the match if only we have concentrated.

76439041554. ✖ Our college would have won the match if only we would have concentrated.

76439041555. ✔ Our college would have won the match if only we had concentrated.

76439041556. ✖ Our college would win the match only we had concentrated.

Question Number : 190 Question Id : 76439010413 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Choose the grammatically correct and meaningful sentence from the options given below:

Options :

76439041557. ✖ He will not pay unless he is not compelled.

76439041558. ✔ He will not pay unless he is compelled.

76439041559. ✖ He will not pay unless he will be compelled.

76439041560. ✖ He will not pay unless the compelled.

Question Number : 191 Question Id : 76439010414 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Read the following passage carefully and answer the question given below:

Farming as practised today in developed countries is of two distinct types. The first type, extensive - land use over large areas, is practised in sparsely populated areas in North America, Australia and Russia. In these areas, there is sometimes a low output per unit of land. The second type, intensive land utilization with high-yields per unit of land, is practised only in the regions with a higher man-land ratio, as is found in varying degrees in Europe and Japan.

The intensive land utilization with high yields per unit of land is practised in :

Options :

76439041561. ✖ underdeveloped countries

76439041562. ✖ all the regions of developed countries

76439041563. ✖ some regions of underdeveloped countries

76439041564. ✔ some regions of developed countries

Question Number : 192 Question Id : 76439010415 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Read the following passage carefully and answer the question given below:

There is no reason to believe that there are fundamental differences between the East and the West. Human beings are everywhere and all of them hold the same deepest values. The differences which are, no doubt, significant, are related to external, temporary social conditions and are alterable with time.

The differences between human beings are:

Options :

76439041565. ✖ fundamental.

76439041566. ✖ important because they are about social conditions , internal, temporary and are alterable with time.

76439041567. ✖ not important because they are permanent.

76439041568. ✔ not important because they are external, temporary and about social conditions.

Question Number : 193 Question Id : 76439010416 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Read the following passage carefully and answer the question given below:

The authoritarian habit of mind is inconsistent with the empiricism of modern science. The scientist holds that only empirical, verifiable evidence is to be trated as true. Basic assertions about the nature of the universe of life and death do not carry conviction to those trained in science.

What is the definition of the term 'empiricism' used in the passage?

Options :

76439041569. ✔ knowledge acquired from modern scientific books.

76439041570. ✖ knowledge acquired by experience.

76439041571. ✖ knowledge acquired by intuition.

76439041572. ✖ knowledge acquired from saints and philosophers.

Question Number : 194 Question Id : 76439010417 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Read the following passage carefully and answer the question given below:

The world has now reached a stage of intercommunication. All societies are fast becoming industrialized and new sets of values are springing up. We are called upon to participate in the painful birth of a new civilization. If we are to live together in peace, we must develop international co-operation and understanding.

What is required to live in peace?

Options :

76439041573. ✖ International organizations must be strengthened.

76439041574. ✔ We need to develop international co-operation and understanding

76439041575. ✖ There must be inter-communication between the nations.

76439041576. ✖ We need to listen to the judgements of international organizations.

Question Number : 195 Question Id : 76439010418 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Read the following passage carefully and answer the question given below:

Historically, the desire to hoard gold at home has been primarily an occupation of the working and peasant classes, who have no faith in paper money. George Bernard Shaw defended their instincts eloquently: "you have to choose between trusting the natural stability of gold and the natural stability of the honesty and intelligence of the members of the government," he said , "and with due respect to these gentlemen , I advise you …., to vote for gold."

What was the intention of George Bernard Shaw?

Options :

76439041577. ✖ The members of the government were honest and intelligent.

76439041578. ✔ Gold was more valuable than paper money.

76439041579. ✖ The value of gold was likely to change unexpectedly.

76439041580. ✖ One could place more faith in politicians than in gold.

Sub-Section Number : 2
Sub-Section Id : 764390232
Question Shuffling Allowed : Yes

Question Id : 76439010419 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No
Question Numbers : (196 to 200)

Read the following passage carefully and answer the following 5 questions given:

Speech is a great blessing but it can also be a great curse, for while it helps us to make our intentions and desires known to our fellows, it can also, if we use it carelessly, make our attitude completely misunderstood. A slip of the tongue, the use of an unusual word or of an ambiguous word, and so on, may create an enemy where we have hoped to win a friend. Again, different classes of people use different vocabularies, and the ordinary speech of an educated man may strike an uneducated listener as pompous. Unwittingly, we may use a word which bears a different meaning to our listener from what, it does to men of our own class. Thus, speech is not a gift to use lightly without thought, but one which demands careful handling. Only a fool can express himself alike to all kinds and conditions of men.

Sub questions

Question Number : 196 Question Id : 76439010420 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Speech can be a curse, if one uses it carelessly, as it can _____.

Options :

76439041581. ✖ reveal our intentions

76439041582. ✖ lead to carelessness

76439041583. ✖ hurt other people

76439041584. ✔ create misunderstanding

Question Number : 197 Question Id : 76439010421 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

A slip of the tongue means _____.

Options :

76439041585. ✖ hurting other person intentionally

76439041586. ✖ speech disorder

76439041587. ✔ speaking without giving proper thought

76439041588. ✖ speaking without having knowledge of vocabulary

Question Number : 198 Question Id : 76439010422 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The best way to win a friend is to avoid__ in speech.

Options :

76439041589. ✔ ambiguity

76439041590. ✖ verbosity

76439041591. ✖ irony

76439041592. ✖ pomposity

Question Number : 199 Question Id : 76439010423 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

While talking to an uneducated person, we should use_____

Options :

76439041593. ✖ polite language

76439041594. ✖ ordinary expressions

76439041595. ✔ his/ her vocabulary

76439041596. ✖ similar meaning words

Question Number : 200 Question Id : 76439010424 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

If one uses the similar style of language with everyone, one would sound like_____.

Options :

76439041597. ✖ democratic

76439041598. ✖ boring

76439041599. ✔ foolish

76439041600. ✖ flat