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THE TIMES OF INDIA

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STUDENT EDITION

TUESDAY, OCTOBER 19, 2021

TIMES nie Newspaper in Education

TODAY'S EDITION

TOP 3 BUZZ OF THE DAY

ENVIRONMENT

India set to update 2030 climate targets under Paris Agreement

After months of pushing back, India is set to update its 2030 climate targets under the Paris Agreement. India is considering cutting down almost by half the amount of greenhouse gases produced for every dollar of economic activity by the end of the decade.

- India's updated nationally determined contributions or NDCs, as commitments by countries under the Paris Agreement are referred to, could include a commitment to reduce the emissions intensity of the economy by at least 46 to 48 per cent from its 2005 levels
- Building on its enhanced renewable energy target of 450GW, India could pledge to increase the share of non-fossil fuel sources in its energy generation capacity to at least 60 per cent, with the possibility of raising it to 65 per cent, by 2030

BOOK

JK Rowling releases Christmas book about 'being lost and found'

Harry Potter author JK Rowling has released her first children's Christmas book, inspired by lockdown and her son David's beloved cuddly toy pigs. 'The Christmas Pig' is a story about "being lost and being found, about loving and being loved, about what stays with us and what falls away," the author said. "It's also about hope and endurance," she added.

SPACE

NASA sends Lucy mission to seek out solar system's 'fossils'

In a novel bid to seek out the origin of our solar system, the US space agency has launched the Lucy mission, the agency's first to Jupiter's Trojan asteroids.

- Lucy will circle back to the Earth three times for gravity assists, making it the first spacecraft to return to the vicinity of Earth from the outer solar system
- During its 12-year primary mission, Lucy will explore a record-breaking number of asteroids, including a flyby of one asteroid in the solar system's main belt and seven Trojan asteroids near Jupiter

Spotlight

VIDYUT MOHAN named among Prince William's Earthshot Prize winners

A Delhi-based entrepreneur's agricultural waste recycling project was named among the winners of Prince William's inaugural Earthshot Prize, dubbed the 'Eco Oscars', at a gala ceremony in London on Sunday evening. **Vidyut Mohan**-led Takachar was named the winner of the GBP 1 million prize for its cheap technology innovation to convert crop residues into sellable bio-products in the "clean our air" category.

It was among five worldwide winners of the prize, created by William, the Duke of Cambridge, to reward people trying to save the planet

1 Takachar was named a winner for its technology, which reduces smoke emissions by up to 98 per cent, aimed at helping improve the air quality that currently reduces the affected population's life expectancy by up to five years

2 If scaled, it could cut a billion tons of carbon dioxide a year, "a win for India's farmers in the fight against climate change"

3 Costa Rica emerged as the winner in the "protect and restore nature" category for a scheme paying local citizens to restore natural ecosystems that has led to a revival of the rainforest

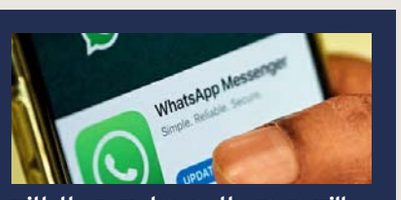
- The Earthshot Prize's name is a reference to the "Moonshot" ambition of 1960s America, which saw the then-President John F Kennedy, pledge to get a man on the Moon within a decade
- Each year for the next decade, the prize is awarding GBP 1 million each to five projects that are working to find solutions to the planet's environmental problems

Facebook rolls out end-to-end encrypted chat backups to WhatsApp

WhatsApp's end-to-end encrypted chat backups for iOS and Android are here! As per The Verge, social media giant Facebook announced that the company has started rolling out end-to-end encrypted backups to WhatsApp.

Facebook has offered end-to-end encryption for chats for years, but with this new change, users will be able to get the same level of encryption with their backups too. Reportedly, the feature will be rolling out "slowly" for people on the latest version of the app.

WHAT'S NEW



The backed-up WhatsApp chats get stored in iCloud or Google Drive, but that could be handed over by Apple or Google to law enforcement if compelled. However, with the new change, the users will be able to secure their WhatsApp cloud backups with a password or a 6-4digit encryption key, which means that no third person, but you will be able to access the backup

NEWS IN CLUES

Which was the first non-European & non-American city to host the Olympics?

CLUE 1: It's named after the birthplace of the founder of a travel agency.

CLUE 2: It is Australia's second largest city.

CLUE 3: It was unofficially once known as Bearbrass.

Answer: **MELBOURNE.** The city, **which has been under the longest lockdown in the world due to Covid-19,** announced that it was lifting the stay-at-home orders. It has been under six lockdowns totalling 262 days or nearly 9 months, since March 2020. It's named after the town of Melbourne in Derbyshire, UK, where Thomas Cook, founder of the eponymously named travel agency Thomas Cook was born. It hosted the Summer Olympics in 1956, becoming the first city outside of Europe and the US to host the quadrennial games.

Cricket fans can now watch ICC Men's T20 World Cup matches live on the big screen at PVR

- The T20 World Cup that started on October 17, will continue till November 14 in the UAE and Oman
- The Indian team, led by skipper Virat Kohli, will play their first match against Pakistan on October 24

Multiplex chain PVR Cinemas, which has bagged the rights for the live screening of cricket matches during the ICC Men's T20 World Cup 2021, will be screening all the India games of the ICC Men's T20 World Cup 2021, along with the semi-finals and final.

The matches will be screened in over 75 cinemas in 35 plus cities, including New Delhi, Mumbai, Pune and Ahmedabad, the multiplex chain said

CBSE BOARD EXAMS: STUDENTS WOULD NOT BE 'FAILED' AFTER TERM 1

CBSE has clarified that it would not be 'failing' any student - in the sense that no fail, pass or repeat would be given to the student for any subject. The fail and pass would be announced only on the basis of the cumulative result, which would be computed after Term 2 examination are completed.However, the Board has said that while no 'fail' or pass would be awarded in Term 1 - the performance in Term 1 would impact the final 'fail or pass' once both the term examinations are complete. Also, since Term 2 is expected to be a subjective paper (all conditions remaining conducive), then the marks of the MCQ would surely determine whether the student is passing or failing in the Board exams. Term 1 scores might carry upto 50% weight in the final result, it added.

(SOURCE: TIMESNOW)

It's not that I am so smart, it's just that I stay with the problems longer.

-Albert Einstein

MULTIPLY EFFORTS TO GET A PERFECT SCORE

EXAMS Rfun

CLASS: XII - 2020-21

SUBJECT: MATHEMATICS (ISC)

Time Allowed: 1½ Hours

Maximum Marks: 80

PRACTICE PAPER SET BY RAGHAVAN BADRINATH, GITANJALI SCHOOL, HYDERABAD

Q1) The relation defined in the set of integers as $aRb \Leftrightarrow a \leq b$ *is*
a) reflexive **b)** not symmetric
c) transitive **d)** all the three

Q2) If A_{ij} is cofactor of a_{ij} ; then the value of
$A_{21} + A_{32}$ If $A = \begin{bmatrix} 2 & 2 & 1 \\ 3 & 4 & 2 \\ 1 & 1 & 1 \end{bmatrix}$
a) –2 **b)** 2 **c)** –4 **d)** 0

Q3) If $x = 4t^2$ & $y = 8t$, $\frac{dy}{dx}$ *at* $t = 2$
a) 2 **b)** 0.5 **c)** – 2 **d)** – 0.5

Q4) $A.A^t$ is a
a) identity matrix
b) a symmetric matrix
c) a skew symmetric matrix
d) None of these

Q5) If $f(x) = \frac{4}{2x-3}\ \forall x \neq \frac{3}{2}$ &
$g(x)\ 3x - 2$, *then* $f(g(2))=$
a) 0.8 **b)** 10 **c)** 16 **d)** 8

Q6) If $f(x) = x^2 - 4x + 5$, then f(x) is _____ at x = 5
a) stationary **b)** decreasing
c) increasing **d)** None of these

Q7) $f(x) = \cos 2x, \forall x \in \left[0\ \frac{\pi}{2}\right]$ is a
a) Injective function
b) Many one function
c) constant function
d) None of these

Q8) If $x^2 + y^2 = 4$, *then* $\frac{dy}{dx}$ *at* $x = \sqrt{3}$ *is*
a) 1 **b)** – 1 **c)** $\sqrt{3}$ **d)** $-\sqrt{3}$

Q9) If A is of order 2 and det $|A| = 4$, *then det* $|3A| =$
a) 108 **b)** 36 **c)** 12 **d)** 4

Q10) If $A = \{1,2,3,4\}$ & $B = \{a,b,c,d,e\}$ then number of one — one function
a) 1024 **b)** 625 **c)** 120 **d)** 20

Q11) $\frac{d}{dx}(\sin^{-1} x + \cos^{-1} x) =$
a) 0 **b)** 1 **c)** $\frac{2}{\sqrt{1-x^2}}$ **d)** $\frac{1}{\sqrt{1-x^2}}$

Q12) If $\begin{vmatrix} 3 & 1 & a \\ b & 2 & -2 \\ 3 & c & 1 \end{vmatrix}$
is a symmetric matrix then a+b+c

a) – 2 **b)** 6 **c)** 2 **d)** 6

Q13) $\frac{d}{dx}(\sin^2 x) =$
a) 2 sinx **b)** sin2x **c)** $\cos^2 x$ **d)** 2cosx

Q14) $\begin{vmatrix} a & a^2 & bc \\ b & b^2 & ca \\ c & c^2 & ab \end{vmatrix} =$

a) $\begin{vmatrix} 1 & a & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{vmatrix}$ **b)** $\begin{vmatrix} a & a^2 & a^3 \\ b & b^2 & b^3 \\ c & c^2 & c^3 \end{vmatrix}$ **c)** $\begin{vmatrix} 1 & a & a^2 \\ b & 1 & b^2 \\ c & c^2 & 1 \end{vmatrix}$
d) none of these

Q15) If $f(x) = x^2 + 3$ and $g(x) = 2x + 4$, then the value of x for which $f(x) = 2g(x)$
a) 1, 5 **b)** –1, 5 **c)** 1, –5 **d)** –1, –5

Q16) The slope of the tangent to the curve $y = x^2 - 4x + 3$ at P(3,0) is
a) 0 **b)** 12 **c)** –12 **d)** 2

Q17) If $y = \ln(x + \sqrt{x^2+1})$ then $dy/dx =$
a) $\sqrt{x^2+1}$ **b)** $\frac{1}{\sqrt{x^2+1}}$
c) $\frac{x}{\sqrt{x^2+1}}$ **d)** $\frac{1}{x+\sqrt{x^2+1}}$

Q18) If AB=3I and order of A and B are 3, if $|A| = 9$ then $|B| =$
a) 81 **b)** 9 **c)** 3 **d)** None of these

Q19) The point on the curve $y = x^2 - 6x + 7$, where tangent is parallel to $y = 2x + 3$
a) (3, 2) **b)** (2, –1)
c) (4, –1) **d)** None of these

Q20) If $f(x) = \begin{cases} 2x+1 & \text{if } x < 1 \\ x^2 & \text{if } 1 \leq x \leq 5, \\ 4x-1 & \text{if } x > 5 \end{cases}$
then the value of f(3)+f(–2)+f(7)=
a) 33 **b)** 38 **c)** 30 **d)** 59

Q21) If $f(x) = x^2 + 1$ and $g(x) = 2x - 3\ \forall\ x \in R$
i) The values of x for which f(x)=17 is
a) 4,0 **b)** –4, 0 **c)** 4, –4 **d)** 16, 0
ii) The number of real roots of the equation f(x)=g(x) is
a) 0 **b)** 1 **c)** 2 **d)** more than 2
iii) The value of $f(g(2)) =$
a) 7 **b)** 2 **c)** 5 **d)** 4
iv) The range of f(x) is
a) R **b)** (0∞) **c)** (1∞) **d)** (1∞)

Q22) An open box with a square base have to be made using c^2 cm^2 of card board, then
i) The volume of the box is
a) $\frac{1}{4}(c^2x - 2x^3)$ **b)** $\frac{1}{4}(c^2x - x^3)$
c) $\frac{1}{4}(2c^2x - x^3)$ **d)** $(c^2x - x^3)$

ii) The value of x for which $\frac{dV}{dx}$ 0
a) $\frac{c}{\sqrt{6}}$ **b)** $\frac{c}{\sqrt{3}}$ **c)** $\frac{c\sqrt{2}}{\sqrt{3}}$ **d)** None of these

iii) The nature of the stationary point
a) Maxima **b)** Minima
c) Point of inflexion **d)** None of these
iv) The Stationary value of V is
a) $\frac{c^3}{6\sqrt{3}}$ **b)** $\frac{c^3}{12\sqrt{3}}$ **c)** $\frac{c^3}{3\sqrt{3}}$ **d)** $\frac{c^3}{4\sqrt{3}}$

Q23) Given $A = \begin{bmatrix} 2 & -1 & 3 \\ 1 & 2 & 4 \\ 4 & 3 & 1 \end{bmatrix}$,
$B = \begin{bmatrix} 9 \\ 17 \\ 13 \end{bmatrix}$ & $X = \begin{bmatrix} x \\ y \\ z \end{bmatrix}$

i) If C_{ij} is cofactor of a_{ij}, then the value of $C_{12} + C_{31}$
a) 5 **b)** –25 **c)** –5 **d)** 25
ii) The value of det $|A| =$
a) 50 **b)** –50 **c)** –20 **d)** –10
iii) The value of x+y+z is
a) 2 **b)** 3 **c)** 6 **d)** None of these
iv) The value of det $|AdjA|$ is
a) 125000 **b)** 2500 **c)** 50 **d)** 400

Q24) The line parallel to
$\frac{x-1}{1} = \frac{y+1}{-2} = \frac{z-1}{3}$
and passing through (1, –2, 3)
a) $\frac{x-1}{1} = \frac{y+1}{-2} = \frac{z+3}{3}$
b) $\frac{x-1}{1} = \frac{y+2}{-2} = \frac{z-3}{3}$
c) $\frac{x+1}{1} = \frac{y-2}{-2} = \frac{z+3}{3}$ **d)** *None of these*

Q25) Find the value of λ so that the vectors
$2\hat{i} - 3\hat{j} + \hat{k}$ & $3\hat{i} - 2\hat{j} + \lambda\hat{k}$
are perpendicular
a) –12 **b)** 13 **c)** – 8 **d)** 0

Q26) The angle between the lines passing through the points (2, 5, 8), (3, 6, k) and (–2, –3, 1), (1, 0, 4) is 90°, then
a) 1 **b)** 2 **c)** 6 **d)** 8

Q27) The unit vector in the direction of $\vec{a}+\vec{b}$, *where* $\vec{a} = 2\hat{i} + \hat{j} + 4\hat{k}$ & $\vec{b} = \hat{i} + \hat{j} + 2\hat{k}$
a) $\frac{1}{7}(3\hat{i}+2\hat{j}+6\hat{k})$ **b)** $\frac{1}{49}(3\hat{i}+2\hat{j}+6\hat{k})$
c) $(3\hat{i}+2\hat{j}+6\hat{k})$ **d)** *None of these*

Q28) If $\vec{a} = 2\hat{i}+2\hat{j}+\hat{k}$ $\vec{b} = 2\hat{i} - 3\hat{j} + 4\hat{k}$ $\vec{c} = 2\hat{i} - 3\hat{j}$
then answer the following
i) The vector of magnitude 6 units, which is parallel to the vector $2\vec{a} + \vec{b} - 3\vec{c}$ *is*
a) $\frac{6}{\sqrt{34}}(10j + 6k)$ **b)** $\frac{1}{\sqrt{34}}(10j + 6k)$
c) $\frac{2}{\sqrt{34}}(10j + 6k)$ **d)** $\frac{3}{\sqrt{34}}(10j + 6k)$

ii) The equation of line passing through A and B whose position vectors are respectively $\vec{a}$ & $\vec{b}$
a) $\vec{r} = (2+2t)\,\vec{i} + (2-3t)\hat{j} + (1+4t)\hat{k}$
b) $\vec{r} = (2-2t)\,\vec{i} + (2+3t)\hat{j} + (1-4t)\hat{k}$
c) $\vec{r} = (2)\,\vec{i} + (2-5t)\hat{j} + (1+3t)\hat{k}$
d) *none*

iii) If $\vec{a} \perp (\vec{b} + \lambda\vec{c})$ then value of λ is
a) 1 **b)** –1 **c)** 2 **d)** –2

iv) The angle between $\vec{a}$ & $\vec{b}$
a) $\sin^{-1}\left(\frac{2}{3\sqrt{29}}\right)$ **b)** $\cos^{-1}\left(\frac{2}{3\sqrt{29}}\right)$
c) $\tan^{-1}\left(\frac{2}{3\sqrt{29}}\right)$ **d)** None of these

Q29) A Company produced a product with Rs 12000 as fixed costs. The variable cost is estimated to be 30% of the total revenue when it is sold at a rate of Rs. 20 per unit.
i) The profit functions is equal to
a) 14x – 12000 **b)** 26x – 12000
c) 14x + 12000 **d)** 26x + 12000

Q30) The demand function for a product is given by p=16 – 4x then the marginal revenue function is a __ function
a) neither increasing nor decreasing
b) decreasing **c)** increasing **d)** constant

Q31) The average cost function for a company is given by
$AC = 2x - 4 - \frac{3}{x}$. the marginal cost when output is 10 units
a) 15.7 **b)** 157 **c)** 36 **d)** 2.03

Q32) The cost function is $C = -10 + 10x - x^2$ and Revenue function is $R = x^2 - 2x$, then break even output is
a) 1, 5 **b)** 1, 4 **c)** 1, 3 **d)** 1, 2

Q33) The unit demand function is x = 28 – 4p Where x is the no. of units demanded and *p* is the price per unit . Then answer the following
i) The revenue function in terms of p
a) $\frac{28-4p}{p}$ **b)** $28p - 4p^2$
c) $14 - 2p$ **d)** $14p - 2p^2$

ii) The marginal revenue in terms of *x*
a) $28x - 4x^2$ **b)** $14x - 2x^2$ **c)** $14x - x^2$
d) $7 - \frac{1}{2}x$

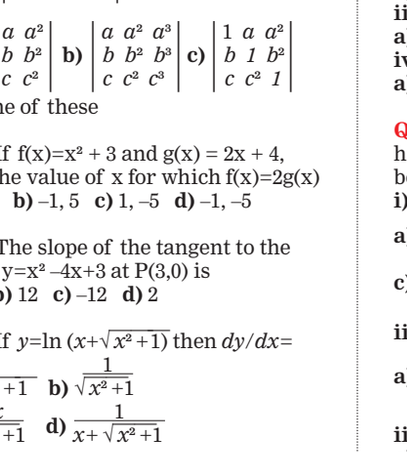
iii) Marginal revenue at x = 40
a) –5280 **b)** –13 **c)** –1040 **d)** –2640

iv) the actual revenue from selling 11th item
a) 3.5 **b)** 1.75 **c)** 7 **d)** None of these

These questions are meant for practice purpose only. Students are advised to check format, syllabus and marks for Board test papers with their teachers. Questions have been given by teachers and NIE is not responsible for them.

Turn adversities to your advantage & advance

Change always happened when humans were challenged. The roads we travel are not always beautiful with picturesque sceneries, lush green forests on either sides or blue skies above.



BE DETERMINED TO REACH YOUR DESTINATION

Most often they are dotted with potholes and humps, we may have to go up and down hills and mountains. Still, we all take a road to reach our destination. Even when a tree falls on the road or it starts pouring, if we're determined to reach our destination, we would find a way around, a better way, wait till it's cleared or walk through it.

GEAR UP TO CLEAR HURDLES

Obstacles may block our paths for a while but we overcome them and march ahead. In life, we face adversities all the time, from the time of birth till the last breath we take. But if we give up each time we face a problem, we will never go ahead but if we consider it as energy to fuel us up, we will see light at the end of the tunnel.

FACE PROBLEMS CRITICALLY, CREATIVELY

Those who face a situation critically and creatively come up with new ideas. Initially, as a teacher, I had several issues to tackle. But I started thinking of ways to deal with each challenge and developed new methods to tackle them.

LEARN FROM CHANGES CAUSED BY THE PANDEMIC

If you hold a knife by its sharp edge, surely you will cut your hand and bleed, but if held by the handle it can be used right. The pandemic has wreaked havoc in our lives but we have found ways to overcome the challenges it brought – our classes are now online, we have found new ways of entertainment, we have learnt new skills to spend our time fruitfully, we have learnt to appreciate simple things in life and to nuture the environment around us.

SEE OPPORTUNITIES IN ADVERSITIES

Adversities are like stones that life throws at you. Pick them up and build a strong foundation on which you can build your life or place them under your feet as stepping stones but don't throw them away because they are opportunities to make things new and better.

Rosemary Joy, Special Educator, Innovative Learning Lab, Centre for Holistic Learning and Development of Children, Assisi Vidyaniketan Public School, Ernakulam

DOUBLE SLIT EXPERIMENT: LIGHT A WAVE OR PARTICLE?

INTERFERENCE, DIFFRACTION AND POLARISATION OF LIGHT

MY SCHOOL PROJECT

The double slit experiment shows the wave nature of light, which adds on to the particle nature of light to get the wave-particle duality of light.

Albert Einstein showed us we can also describe light as being made up of individual particles of energy: photons. This is necessary to account for something called the "photoelectric effect". When you shoot a very specific wavelength of light at a sheet of metal, the metal emits electrons: particles that are electrically charged. This is the photoelectric effect.

Then comes the Double Slit experiment. It is one of the most famous experiments in physics. It demonstrates that little particles of matter have something of a wave about them. To start off, imagine a wall with two slits in it. Imagine throwing tennis balls at the wall. Some will bounce off the wall, but some will travel through the slits with easily understood trajectories. If there's another wall behind the first, the tennis balls that have travelled through the slits will hit it. If you mark all the spots where a ball has hit the second wall, what do you expect to see? We expect to see 2 strips of marks roughly the same shape as the slits.

BUT

Now shine a light at the wall with two slits. As the wave passes though both slits, it essentially splits into two new waves, each spreading out from one of the slits. These two waves then interfere with each other. Bright spots on the screen show the areas where the light wave interfere constructively, ie, they add on to each other. The dark regions show the destructive interference of light waves, ie, where the cancel each other out. When the light meets a screen placed behind, you will see a striped pattern, called an interference pattern. It looks like:

We can notice the dark spots and the bright spots, showing destructive and constructive interference of light waves.

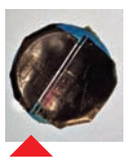
MY EXPERIMENT

I will be demonstrating this experiment. We should expect to see an interference pattern which is caused by the light interfering with itself.

Materials Used

1) Laser pointer with a green dot (532±10nm)

2) A mounting stand



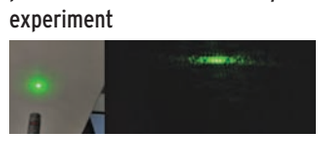
3) A home-made double slit using tape (size of slits approx. 0.3mm)

Setting Up the Experiment

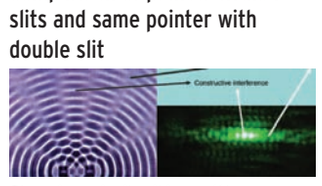
To observe the effect, we need to point it at a screen

Observation

Here we can see the interference pattern. Pictures I took of my experiment



Comparison of pointer without slits and same pointer with double slit



Showing similarities with waves in water

Conclusion

So finally, we can observe the interference pattern which proves the wave nature of light, and now we can conclude light behaves as a wave.

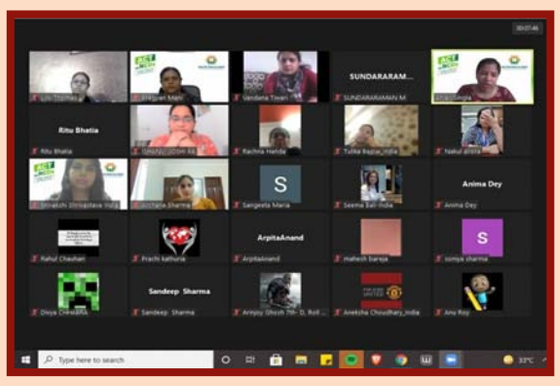
Shreyas Dutta, class XI, DPS Whitefield, Bengaluru

CLICK HERE: PAGE 3 AND 4

Fourth Global Week for Action on NCDs

The fourth Global Week for Action on NCDs (September 6-12, 2021) was observed by the students, parents and teachers of **St Mary's School**, Dwarka in collaboration with the Healthy India Alliance (India NCD Alliance) and people living with NCDs.

A plethora of activities were conducted to promote awareness about mental health and NCDs and its prevention and control with an aim to engage communities in these efforts. The theme for this year's week was 'Community Engagement'. A 'Mental Health Dialogue' was conducted for parents on September 7, with a clinical psychologist to identify the needs of adolescents and youth in building resilient communities in the COVID-19 era.



The session focussed on how COVID-19 had affected their lives and measures they had taken to overcome the burden of the pandemic at individual and family levels. A jingle creation competition was conducted for the students of class X on the benefits of engaging communities in non communicable diseases, its prevention and control. The students of class XI displayed the letters 'ACT ON NCDs' through various yoga poses-to promote physical and mental wellbeing among communities.

The students of class XII actively participated in a group discussion on how we can engage communities to deal with NCDs and find ways to prevent and control them. World Mental Health week was observed from October 4 to 10. The students of classes VI-XII were shown a powerpoint presentation which focussed on causes of mental health, ways to improve mental health and the need to be sensitive towards others. Overall, the activities helped reach to different stakeholders in the community to develop an understanding about NCDs and measures to improve our mental health.

Ammie in 'World Book of Records'

Ammie Arora of **Delhi Public School**, Dwarka has been awarded by the 'World Book of Records' for being the youngest Retro Female Pianist.

She played 51 retro songs in Hindi, English, Spanish and Portuguese in a span of 3 hours 18 minutes 32 seconds. She was awarded by the renowned playback singer Udit Narayan, Bollywood lyricist Sameer and the music director Usman Khan in a special ceremony organised on September 18.

E-waste awareness walkathon held

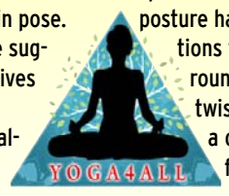
DPSG Sushant Lok joined hands with Earth Sense Recycle Pvt Ltd to dispose and recycle the e-waste in authorised and scientific manner. A walkathon was organised by DPSG Sushant Lok in association with Earth Sense Recycle Pvt. Ltd. to create an awareness on e-waste management on October 6 where 50 students and 20 teachers from the school and 6 members from Earth Sense Recyclers participated.

The event was held at Tau Devilal Biodiversity Park, Sector 53, Gurugram. The students and teachers spoke to the people in the park making them aware about e-waste management. They distributed seed pencils and informed them about DPSG Sushant Lok being official e-waste collection centre and how the citizens should participate in disposing the e-waste in a responsible manner and become vigilant citizens.

PARVATASANA

HOW TO DO PARVATASANA?

The mountain pose. As the name suggests, it derives the benefits from the qualities of a mountain- stability, fixity and strength. This posture has three variations to provide all-round stretch and twist to spine. It is a cultural Asanas for lateral (upward) stretch of the spine (classic pose). How to do parvatasana? Let's see the method-

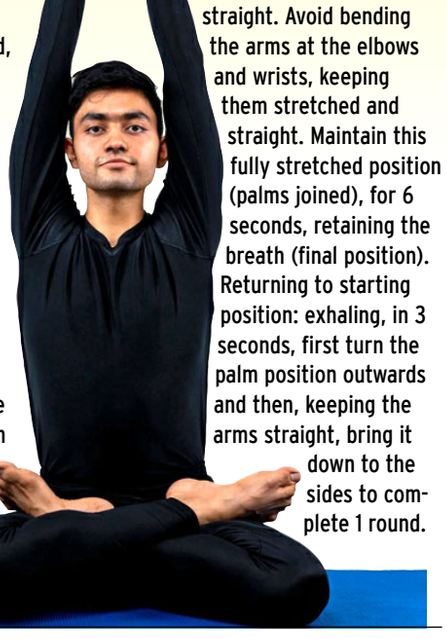


STARTING POSITION:

Sit in Padmasana / Sukhasana, keeping the hands at their respective sides. Chest thrown well forward, keep the neck straight, the abdomen in normal contour, the chin drawn in and eyes focused on a single point straight ahead.

CLASSICAL POSE METHOD:

Inhaling, in 3 seconds, raise both the arms together, from their respective sides, for an upward stretch. Join the palms to each other in this upward stretched position of arms. Either interlace the fingers or keep the palms joined. Keep the hands close to the respective ears, abdomen maintained in normal contour and back straight. Avoid bending the arms at the elbows and wrists, keeping them stretched and straight. Maintain this fully stretched position (palms joined), for 6 seconds, retaining the breath (final position). Returning to starting position: exhaling, in 3 seconds, first turn the palm position outwards and then, keeping the arms straight, bring it down to the sides to complete 1 round.



BENEFITS OF YOGA

1. Corrects minor postural defects of the spine and straightens the muscles of the back.
2. Stretches all the abdominal and pelvic muscles and loosens the hips.
3. Exercises the inactive waist zone, and helps reduce belly fats and flabby abdomen.
4. Internal organs in the abdominal region get proper massage-improved blood circulation; viscera normally rest on the pelvic floor.
5. Prolapse (slipping down) of the uterus is improved by providing natural support to the viscera.
6. Blood circulation in the vertebral region improves, and the efficiency of the nerves coming out of the vertebra is improved.
7. The unnatural curvature of the spine and minor displacements of the vertebrae are corrected.

Courtesy: The Yoga Institute

The Yoga Institute was founded on December 25, 1918 by the founder, Shri Yogendraji. It found a permanent base in Santacruz, Mumbai, in 1948.

Yoga should be practiced under the supervision of Yoga Guru. The views expressed in the above article are those of the author and the newspaper takes no responsibility for it.

Terror in Afghanistan

Taliban swept into Afghanistan's capital when India was celebrating Independence Day, and was termed as the massacre of democracy in Afghanistan. Government had collapsed and the embattled president escaped leading to the end of two decade US campaign to rebuild Afghanistan.

People have to relive Taliban's brutal rule which was established 20 years back. They enforced laws where TV, music, media and cinema were banned. Men were made to grow beards and women had to wear the all-covering burkha also their right to work has been snatched away. The whole nation is in turmoil, millions and millions of people were gathered at the airport just to find one flight which would take them away from this horror. Their desire to leave the nation compelled them to even hang on the wings of the aircraft which lead several people to lose their lives due to falling off from such great heights. One of the major fears is that the country will once again become a training ground for terrorism.

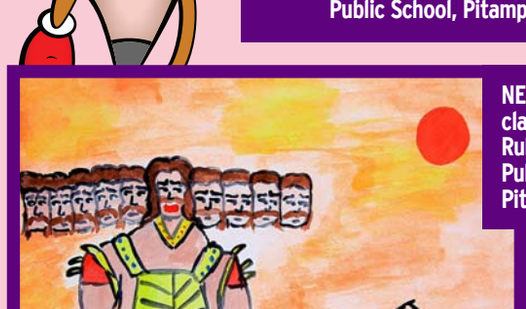
Talibanis are feeding on the nation tears, common people's once peaceful life has been disrupted again and their dreams now are burning down in flames.

SRISHTI SREYA, class XII, St Thomas School, Dwarka

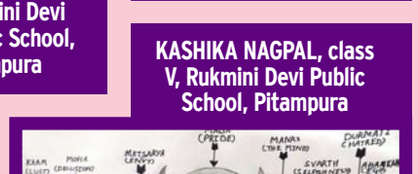
Student Corner

AANSHI GUPTA, class V, Rukmini Devi Public School, Pitampura

VEENAM NAMA, class XI, Rukmini Devi Public School, Pitampura



NEIV MALHOTRA, class VII, Rukmini Devi Public School, Pitampura



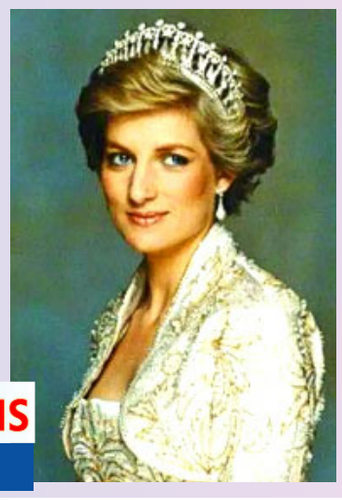
KASHIKA NAGPAL, class V, Rukmini Devi Public School, Pitampura

PEOPLE'S PRINCESS

Diana Spencer was a philanthropist, a fashion icon, the Princess of Wales; but most of all, she was the queen of our hearts.

With her unparalleled elegance and grace, she stole everyone's hearts. She put her fame to good use — working for charities, for innumerable causes like AIDS patients, children's issues, an effort to ban land mines, and so many more.

Lady Di cared for her people and was not afraid to show it. She broke down all the barriers that held royalty back - she humanised the idea of royalty - communicating with citizens directly, making an effort to know them.



She made us realise that royalty was about being a queen at heart, about caring for your people and empathising with them. It was about love and benevolence. Thereafter, royalty was much more than a throne and a crown.

Princess Diana is a shining beacon of inspiration to me, because she tells me to find the royalty within me - the benevolent queen who works for worldly welfare, who unveils infinite kindness and love upon the world. Perhaps Princess Diana was never given the official title of 'Queen' but she deserved the title she did get - 'the People's Princess'.

Pia Oza, class X, SSPM's Sri Sri Ravishankar Vidya Mandir, Borivali East

INSPIRING ICONS
PRINCESS DIANA

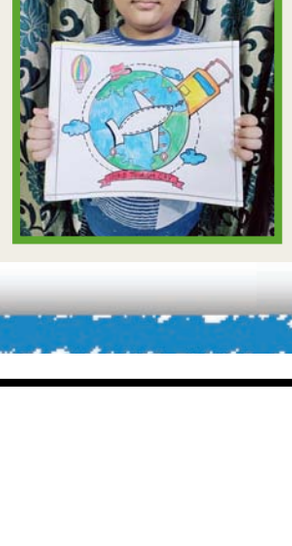
The Story of Love and Hate

Once there was love,
And there was hate.
Hate ticked love,
Who innocently took
the bait.
You see love lived in a
village of people,
within and among.
While hate was a paint
in the lone
forest's palette.
One day, hate
called love,
he asked for truce.
But then he kicked out
love with scars
and abuse.
Hate now quickly
befriended all,
which led to love's
hard and sad fall.
Now hate lives in the
village of people,
among and within.
It's a world where
love's cast out,
and trust is a sin.
Love wanders in hope
he watches silently.
Once a place joy
and green.
Now painted in red
and men all mean.
Among them,
lives one,
with kindness
in his heart.
A small ray, stronger
than ten
radiates gold, out and
within.
That one kind boy,
more powerful
than all,
will lead to hate's
joyous fall.
Things will recover,
and love will prevail,
When the little ray of
kindness, all will hail.

Harita Baluja, class XII, GD Goenka Paschim Vihar

World Tourism Day: Children learn about new cultures

World Tourism Day is commemorated each year on September 27 across the globe with a lot of zeal and enthusiasm. This year though the tourism sector has taken a backseat but the onset of technology has made it possible to take a virtual tour to any part of the world directly on our screens while sitting safely at home.



The students of **Manav Sthali Global Sc hool,** Double Storey recognised and celebrated the global oneness with this World Tourism Day. A dressed-up event for children was organised along with an insightful virtual tour depicting historical and cultural heritage of various Indian states and other countries around the world. The teachers presented interesting facts and informative bits about these nations.

It was a delight to see children garbed in beautiful native costumes. They greeted each other in different lingos and proffered in some of the famous local delicacies from various parts of the world.

Overall, the celebration proved to be a pleasurable and enriching experience for all the students.

A wise man learns by the mistakes of others, a fool by own.
Adam Gilchrist, Australian Cricketer

ICC T20 WORLD CUP 2021

SCOTLAND LOOK TO KEEP UP MOMENTUM

Spurred by victory over Bangladesh, team will look to build on win as they take on Papua New Guinea

Buoyed by their stunning victory over Bangladesh, Scotland will be keen to keep the winning momentum going when they take on Papua New Guinea in the T20 World Cup in Oman on Tuesday. Chris Greaves' magnificent all-round display, that saw him hit a 45 off 28 deliveries before snaring two crucial wickets, helped Scotland notch a six-run victory over Bangladesh in their opening clash, while debutants Papua New Guinea were handed a 10-wicket thrashing by co-hosts Oman in the tournament opener.

Scotland were in a spot of bother at 53 for six before Greaves led a brilliant lower-order fightback, stitching vital partnerships with Mark Wyatt (51 runs) and Josh Davey (27 runs) to help his side set a respectable target.

BATTING COLLAPSE A CONCERN

The batting collapse up front will be a cause of concern for the Scots, four batters at the top failed to go beyond the five-run mark with captain Kyle Coetzer and Michael Leask scoring ducks. They would need to take more responsibility going ahead.

The bowlers did well to keep the pressure on the opposition from the beginning and wickets at regular intervals sealed a memorable victory for the Scots in the end.

However, despite ending on the winning side skipper Coetzer conceded that the side is capable of better performances. "We understand that we have to play extremely well to beat sides. We certainly didn't play to our full potential," Coetzer said. A win on Tuesday will put Scotland in strong position to head to the Super 12s stage.

On the other hand, Papua New Guinea, who were hoping to end their 12-match losing streak in white ball cricket, were completely outplayed in all departments. Going ahead, not only will they have to win against Scotland, they will also look to improve their net run rate which currently stands at -3.135.

The side will need to do some serious thinking ahead of the next game. Barring skipper Assad Vala, who hit a half century and Charles Amini's (37), the PNG batters struggled and were guilty of giving away their wickets in clusters.

It wasn't a great outing for the bowling unit either, the skipper used seven bowlers but none could trouble the opposition. They will have to regroup fast.

Looking ahead, Vala said "We just need to focus on ourselves and not worry about Scotland and Bangladesh at the moment, because it was down to us that we didn't do well today because we didn't execute our plans."

Scotland captain Kyle Coetzer has said that the six-run upset win over Bangladesh came about because of a "lot of planning behind the scenes", given that the side had barely played any competitive games coming in and the pandemic leaving their preparations in a disarray.

BANGLA MUST WIN NEXT

Bangladesh, meanwhile, take on Oman in desperate need of a win, and for skipper Mahmudullah, it was their batting that faltered in this encounter, with Mushfiqur Rahim's dismissal for 38 proving the crucial moment in the match. Handed a rude shock in their opener, Bangladesh will have to sort some self-confessed batting problems and play as per their reputation. They came into the tournament as the sixth-ranked team, which had beaten New Zealand and Australia at home. AGENCIES

FORMER CHAMPS LANKA FACE NAMIBIA

Namibia is making their debut in the tournament, taking on 2014 winners Sri Lanka in Abu Dhabi. While Sri Lanka and Namibia may have contrasting histories in the tournament, both will traverse unchartered territory when walking onto the ground at the Sheikh Zayed Stadium. As Namibia end an 18-year wait to return to global tournament action, Sri Lanka enters the First Round stage of the 16-team tournament for the first time, and will face a new challenge of high-pressure preliminary action. To add intrigue to the match-up, the pair face off for the first time in T20I cricket.

NETHERLANDS, IRELAND EYE WINNING START

Group A's fascinating balance offers plenty of qualification hope for Ireland and the Netherlands as they prepare for their opening ICC Men's T20 World Cup fixture in Abu Dhabi. Both teams are talking a good game, and their aspirations of making it into the second stage of the tournament are highly achievable, with each squad containing more than enough to trouble pool favourites Sri Lanka and fellow Group A hopefuls Namibia. The Dutch arrive without much by way of warm-up time for their strongest side. As for Ireland, the full potential of the squad that has travelled to the tournament is slightly uncertain. Many of the golden generation, who established the Irish as a white-ball force, particularly in 50-over cricket, have now moved on to retirement and coaching.

Kyle Coetzer

Photo: ANI

JUVE continue to climb

With fours wins on the go, the team moves into seventh spot while Roma remain on fourth

Juventus continued their climb following a disastrous start as Moise Kean's first-half goal clinched a 1-0 win over Jose Mourinho's Roma. Wojciech Szczesny saved a penalty from Roma midfielder Jordan Veretout just before half-time as Juventus made it four wins on the bounce, moving up to seventh. "I like 1-0, as it's a good result, especially as we kept another clean sheet," Juve coach Massimiliano Allegri said. "Roma are a technically good team, they have a lot of quality and caused us problems early on, then we scored a good goal and improved as time wore on." Roma remain fourth but have lost three of their past five outings.

Atalanta have easy win

Atalanta were easy 4-1 winners against Empoli as they warmed up to take on Manchester United at Old Trafford in the Champions League on Wednesday. Veteran Slovenian forward Josip Ilicic, recalled after suffering from a combination of a knee injury and depression, scored the opener, his first goal of the season. Ilicic, 33, got his second with a rasping shot on 26 minutes but Federico Di Francesco pulled a goal back for the home side. Four minutes into the second half, Atalanta took a 3-1 lead when 19-year-old Empoli defender Mattia Viti scored an own goal before the visitors wrapped up the win when Colombian forward Duvan Zapata got his 100th Serie A goal. AGENCIES

Moise Kean

Photo: REUTERS

PERFECT NAPOLI RECLAIM TOP SPOT

Napoli returned to the top of Serie A after Nigerian international Victor Osimhen scored the only goal in a hard-fought 1-0 win against Torino. AC Milan had moved to the top of the table after beating Hellas Verona 3-2. But Napoli moved back to the summit after Osimhen, who scored for his country in a 2-0 win against the Central African Republic in World Cup qualifying last week, headed the 81st-minute winner. "It was the most important goal of my career. I'm so pleased. The atmosphere at the stadium was incredible," said the 22-year-old Nigeria striker.

ANSU inspires BARCA to victory

Valencia falter as Barcelona navigate a storm for a winning start to the big week ahead

Ansu Fati came to the rescue again by scoring a sensational goal and earning a penalty in a 3-1 victory over Valencia as Barcelona got a big week off to a winning start. Memphis Depay slammed in the spot-kick and Philippe Coutinho, who came on for Fati, added a late third.

Ansu went off with Valencia still chasing an equaliser, an indication of how important he is for Wednesday's Champions League game against Dynamo Kiev. Barca sit bottom of the group, so a victory over Kiev is all-but essential.

Barca fall behind

For the third time in six games, Barca were behind inside the first five minutes.

Ansu was Barcelona's brightest spark. In the 13th minute, he was clinical, squaring up two Valencia defenders before playing inside to Depay and bursting between both of them. He took the ball back, looked up and whipped the ball from the left of the area and inside the far right-hand post.

Gaya did well to prevent Sergino Dest tapping in at the back post but next Gaya hooked his left foot around Ansu's left leg and while he touched the ball, the decision stood. Depay rifled in from the spot.

Ansu was replaced by Philippe Coutinho and Valencia pushed, as Soler's pull-back needed a crucial intervention by Gerard Pique. But Barcelona navigated the storm and as Valencia fizzled, they struck a third, Coutinho converting from close range, before Aguero made his long-anticipated debut. AFP

Ansu Fati

Photo: GETTY IMAGES

SEVILLA IN THIRD SPOT

Sevilla edged up to third in La Liga after a second-half goal from Rafa Mir was enough to give them a battling 1-0 win away at struggling Celta Vigo. After being beaten by Granada before the international break, Sevilla got back to winning ways with the kind of resilient, determined performance they delivered so often last season. They edge ahead of Atletico Madrid on goal difference, three points behind early leaders Real Sociedad with a game in hand. Celta sit 16th, with seven points from their first nine matches.

QUIZ TIME!

Q1. For which of the following sports is the term Ring not used for ground/ space?
a. Boxing
b. Gymnastics
c. Ice Hockey
d. Baseball

Q2. How many medals has the India men's hockey team won at the Commonwealth Games till date?
a. 8 b. 6 c. 2 d. 5

Q3. Which of the following teams have failed to win even a single ODI?
a. East Africa
b. Namibia
c. USA
d. All of the above

Q4. Which team bagged the Fair Play Award in the 2021 IPL?
a. Rajasthan Royals
b. Chennai Super Kings
c. Sunrisers Hyderabad
d. Punjab Kings

Q5. Cricketer Harshal Patel won the Purple Cap and Gamechanger of the Season award in IPL 2021. Which other award did he win?

Harshal Patel

Photo: ANI

a. Orange cap
b. Most Valuable Player
c. Man of the match
d. None of the above

Q6. Which Indian player became the highest ranked badminton player in the world in April 2018?
a. Ajay Jayaram
b. H S Prannoy
c. Srikanth Kidambi
d. Sourabh Verma

Q7. Under which captain did the Indian women's hockey team win 3 consecutive gold medals in 3 years in different events?
a. Rani Rampal
b. Suraj Lata Devi
c. Varsha Soni
d. Madhu Yadav

Q8. Who are the current world No. 1 mixed doubles pair in BWF World Rankings?
a. Chen Qingchen and Jia Yifan
b. Mayu Matsumoto and Wakana Nagahara
c. Lee So-hee and Shin Seung-chan
d. Yuki Fukushima and Sayaka Hirota

ANSWERS: 1. d. Baseball 2. c. 2 3. d. All of the above 4. a. Rajasthan Royals 5. b. Most Valuable Player 6. c. Srikanth Kidambi 7. b. Suraj Lata Devi 8. d. Yuki Fukushima and Sayaka Hirota