## SCIENCE

1. A racing car has uniform acceleration of $4 \mathrm{~ms}^{-2}$. What distance will it cover in 10s after start?
(A) 200 m
(B) 250 m
(C) Zero
(D) None of these
2. A body P has mass 2 m and velocity 5 v . Another body Q has mass 8 m and velocity 1.25 v . The ratio of momentum of $P$ and $Q$ is :
(A) $2: 1$
(B) $1: 1$
(C) $1: 2$
(D) $3: 2$
3. The weight of the body at the surface of the earth is 20 N and the radius of the earth is 6400 km . The weight of a body at a height 6400 km above is :-
(A) 7 N
(B) 5 N
(C) 4 N
(D) 6 N
4. In an experiment of conversion of ice into water and water into vapour, observations were recorded and a graph plotted for temperature against time as shown below. From the graph it can be concluded that:-

(A) Ice takes time to heat up to $0^{\circ} \mathrm{C}$
(B) During melting and boiling temperature does not rise
(C) Process of boiling takes longer time than the process of melting
(D) All the above
5. Milk of magnesia is an example
of:-
(A) Emulsion
(B) True solution
(C) Colloid
(D) Suspension
6. Column I

ColumnII
(A) Whipped cream(P) Aerosol of liquids
(B) Colourless glass (Q) Emulsion
(C) Fog
(R) Solid sol
(D) Milk
(S) Foam or froth

## Options

|  | A | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ |
| :---: | :--- | :--- | :--- | :--- |
| (A) | S | R | P | Q |
| (B) | P | Q | R | S |
| (C) | R | S | Q | P |
| (D) | S | P | Q | R |

7. Meristemetic tissue are those which help in increasing the length and girth of the plan. Which of the following statements given below is correct about the meristematic tissue?
(A) It is made up of cells that are incapable of cell division
(B)It is made up of cells that are capable of cell division
(C)It is composed of single type of cells
(D)It is composed of more than one type of cells
8. A state of physical, mental and social well- being is called
(A) Wealth
(B) Health
(C) Standard of living
(D) Disease
9. A person met with an accident in which two long bones of his hand were dislocated. Which among the following may be the possible reason for this ?
(A)Tendon breaks
(B)Break of skeletal muscles tissue
(C)Ligament breaks
(D)Areoelar tissue breaks
10. Match the names of the scientists with their contribution.

## Column-I

## Column-II

(i) Robert Hooke A. Free living cells in pond water
(ii) Leeuwenhoek
B. Nucleus in the cell
(iii)Robert Brown C. Cells in cork slice
(iv) Schleiden D. Cell theory
(A) (i)B
(ii)A (iii)D
(iv) C
(B).(i) C
(ii)A
(iii)D
(iv)B
(C) (ii) A
(i) C
(iv)B (iii)D
(D).(iv)D
(i)C
(iii)B (ii)A

## ANSWER-KEY

1.(A) 2.(B) 3.(B) 4.(D) 5.(D) 6.(A)
7.(B) 8.(B) 9.(C) 10.(D)

## SOCIAL SCIENCE

11. In which form of Government where the source of all political authority is to be found in the supreme ruler?
(A) Monarchy
(B) Democracy
(C) Dictatorship
(D) Aristocracy
12. Who led a military coop in Pakistan in

October 1999?
(A) Nawaz Shariff
(B) General Parvez Musharaf
(C) Benazir Bhutto
(D) Shaukat Aziz
13. Who among the following was not the member of the constituent assembly?
(A) Mahatma Gandhi
(B) Dr. Rajendra Prasad
(C) T.T. Krishna machri
(D) Pt.Jawaharlal Nehru
14. When did South Africa became a democratic country?
(A) $26^{\text {th }}$ April 1995
(B) $24^{\text {th }}$ March 1994
(C) $26^{\text {th }}$ April 1994
(D) 27 th April 1994
15. A narrow channel of sea separating two land -masses is called
(A) Gulf
(B) Strait
(C) Isthmus
(D) Bay
16. India's total area accounts for what percentage of the geographical area of the world?
(A) $2.9 \%$
(B) $3.2 \%$
(C) $2.4 \%$
(D) $4.2 \%$
17. The largest delta in the world is
(A) The Ganga Delta
(B) The Mahanadi Delta
(C) Suderbans Delta
(D) Godavari Delta
18. How many member did the Constituent Assembly of India have?
(A) 299
(B) 199
(C) 269
(D) 300
19. Which do indicates the Human Capital Formation in India?
(A) Green Revolution
(B) I.T Revolution
(C) Labour Revolution
(D) White Revolution
20. Which of the following activities comes under primary sector?
(A) Agriculture (B)
(C) Dairy
B) Forestry

ANSWER-KEY
11.(A) 12.(B) 13.(A) 14.(D) 15.(B)
16.(C) 17.(C) 18.(A) 19.(B) 20.(D)

## MATHEMATICS

21. If $\operatorname{LCM}(p, q)=p \times q$, then their HCF is
(A) $p q$
(B) $p+q$
(C) 1
(D) none of these
22. Which of the point lies on the line $2 x+5 y=13$
(A) $(1,1)$
(B) $(4,1)$
(C) $(-1,1)$
(D) $(0,3)$
23. If $P(E)=0.75$, then $P(\bar{E})=$ ?
(A) 0.50
(B) 0.75
(C) 0.25
(D) 1
24. The number $2,3,4,4,2 x+1,5,5,6,7$ are written in ascending order. If the median is 5 , then find $x$
(A) 2
(B) 3
(C) 4
(D) 5
25. In the figure shown, if $B E \| D F$, What is the value of $\angle A B C$ ?
(A) $20^{\circ}$
(B) $30^{\circ}$
(C) $50^{\circ}$
(D) $70^{\circ}$

26. If $P(1,2), Q(4,6), R(5,7)$ and $S(a, b)$ are the vertices of a parallelogram PQRS, then
(A) $a=2, b=4$
(B) $a=3, b=4$
(C) $a=2, b=3$
(D) $a=3, b=5$
27. The area of right - angled triangle with base 6 m and hypotenuse 6.5 m is
(A) 7.5 sq m
(B) 9.5 sq m
(C) 8.5 sq m
(D) None of these
28. If points $(1,2),(-5,6)$ and $(a,-2)$ are collinear, then $a=$
(A) -3
(B) 7
(C) 2
(D) -2
29. if $(x-2)$ is a common factor of $x^{3}-4 x^{2}+a x+b$ and $x^{3}-a x^{2}+b x+8$, then the value of $a$ and $b$ are respectively:
(A) 3 and 5
(B) 2 and - 4
(C) 4 and 0
(D) 0 and 4
30. If the radii of two cylinders are in the ratio $2: 3$ and their heights are in the ratio 3 : 4 . The ratio of their volumes in
(A) $2: 1$
(B) $3: 1$
(C) $1: 3$
(D) $1: 2$

## ANSWER-KEY

21.(C) 22.(B) 23.(C) 24.(A) 25.(C)
26.(C) 27.(A) 28.(B) 29.(C) 30.(C)

## MENTALABILITY

31. Daya has a brother Anil. Daya is the son of Chandra. Bimal is Chandra's father. In terms of relationship, what is Anil to Bimal?
(A) Son
(B) Grandson
(C) Brother
(D) Grandfather
32. If CRICKETER is coded as DQJBLDUDS, then PLAYER will be coded as:
(A) QMBZFS
(B) OMZZDS
(C) QKBXFQ
(D) QKBZDS
33. In each of the following questions, find the number of triangles in the given figure.
(A) 15
(B) 16
(C) 17

(D) 18
34. The figure given below show the two different position of a dice. Which number will appear opposite to number 1 ?
(i)

(A) 3
(B) 4
(C) 5
(D) 6
35. $Y$ is in the East of $X$ which is in the North
of $Z$. If $P$ is in the South of $Z$, then in which direction of Y , is P ?
(A) North
(B) South
(C) South-East
(D) None of these
36. In each of the following questions, you are given a figure ( x ) followed by four alternative figures (1), (2), (3) and (4) such that figure ( x ) is embedded in one of them. Trace out the alternative figure which contains figure ( x ) as its part.

(x)

(A)

(B)

(C)

(D)
37. 1, 3, 3, 6, 7, 9.......12, 21
(A) 10
(B) 11
(C) 12
(D) 13
38. If ' $<$ means ${ }^{-}-$', ' $>$' means ' + ', $=$means ' $x$ ' and '@' means ' $\div$ ', then what will be the value of $7=4<8=3>39$ @ 3 ?
(A) 10
(B) 17
(C) 39
(D) 52 s

Q39. Find the mirror image
NATIONAL
(A) TVNOILVN
(B) IAИOITAИ
(C) IANOTTAK
(D) LANOITAИ

Q40.

| A | D | H |
| :---: | :---: | :---: |
| F | I | M |
| $?$ | N | R |

(A) K
(B) N
(C) O
(D) P

## ANSWER-KEY

31.(B) 32.(C) 33.(C) 34.(D) 35.(D)
36.(C) 37.(D) 38.(B) 39.(B) 40.(A)

## SCIENCE

1. If no external force acts on a body, it will
(A) move with more speed
(B) change its shape
(C) break into pieces
(D) either remain in its state of rest or in uniform motion.
2. On the surface of the earth, force of gravitational attraction between two masses kept at distance d apart is 6 Newtons. If these two masses are taken to the surface of the moon and kept at the same distance d, the force between them will be
(A) 1 N
(B) 36 N
(C) $\frac{1}{6} \mathrm{~N}$
(D) 6 N
3. A boy runs for 10 min . at a uniform speed of $9 \mathrm{~km} / \mathrm{h}$. At what speed should he run for the next 20 min . So that the average speed comes to $12 \mathrm{~km} / \mathrm{h}$ ?
(A) $13.5 \mathrm{~km} / \mathrm{h}$
(B) $12.5 \mathrm{Km} / \mathrm{h}$
(C) $11.5 \mathrm{~km} / \mathrm{h}$
(D) $10.5 \mathrm{~km} / \mathrm{h}$
4. When a gas jar full of air is placed upside down on a gas jar full of bromine vapours, the red brown vapours of bromine from the lower jar go upward into jar containing air. In this experiments:-
(A)Air is heavier than bromine.
(B)Both air \& bromine have same demity.
(C) Bromine is heavier than air.
(D) Bromine can't be heavier than air because it is going upward against gravity.
5. Odd one among the following which does not belong to the set is ?
(A) Gun powder
(B) Air
(C) Graphite
(D) Brass
6. Which of the following is not a pure substance -
(A) Mercury
(B) Sugar
(C) Blood
(D) Salt
7. Voluntary muscle present in
(A)lung
(B)liver
(C)forelimb
(D)heart
8. The movement of ions in and out of the cell is regulated by
(A) Plasma membrane
(B) Cytoplasm
(C)Vacuole
(D) Nucleoplasm
9. The process of withdrawal of water from a cell through osmosis is called
(A)Endosmosis
(B)Exosmosis
(C)Both a and b
(D) None of the above
10. An organelle ' $X$ 'has two membrane coverings. The outer one is porous while the inner one is highly folded .The folds provide a large surface area for a chemical reaction to produce ' Y '.Identify ' X ' and ' Y '

|  | $\mathbf{X}$ | $\mathbf{Y}$ |
| :--- | :--- | :--- |
| (A) | Mitochondria | ATP |
| (B) | Chloroplast | ADP |
| (C) | Golgi bodies | ER |
| (D) | Golgi bodies | AMP |

ANSWER-KEY
$\begin{array}{llllll}\text { 1.(D) } & \text { 2.(D) } & \text { 3.(A) } & 4 .(\mathrm{C}) & 5 .(\mathrm{C}) & 6 .(\mathrm{C}) \\ \text { 7.(C) } & \text { 8.(A) } & \text { 9.(B) } & 10 .(\mathrm{A})\end{array}$

## SOCIAL SCIENCE

11. Investment in human capital is expenditure on
(A) Infrastructure
(B) Agriculture
(C) Education
(D) None of these
12. What is the full form of GNP?
(A) Gross Net Production
(B) Gross National Production
(C) Gross National Product
(D) Goods and Services Tax
13. The French Revolution took place on
(A) July 14, 1789
(B) July 14, 1768
(C) July 14, 1786
(D) July 14, 1785
14. French legacy to the world
(A) Liberty, freedom and Equality
(B) Democracy
(C) Socialism and Rationalism
(D) Republication
15. Which country among the India's neighbours is the smallest?
(A) Nepal
(B) Bhutan
(C) Sri Lanka
(D) Bangladesh
16. Which of the following Union

Terriotories is located along the east coast of India?
(A) Andeman and Nicobar Islands
(B) Chandigarh
(C) Dadar and Nagar Haveli
(D) Puduchery
17. Finance raised to operate a business is called
(A) Labour
(B) Enterprise
(C) Land
(D) Capital
18. Working Capital stands for
(A) Tools, Machine and Building
(B) Raw Material and Buildings
(C)Total Share Capital
(D) Fixed deposits in financial institution
19. In Pakistan, General Parvej Musharraf led a military coup in
(A) 1999
(B) 1998
(C) 1997
(D) 1996
20. What is the chinese Parliament called
(A) National People's Congress
(B) Chinese Communist Party
(C) The Communist Party of China
(D) Peoples Congress

ANSWER-KEY
11.(C) 12.(C) 13.(A) 14.(A) 15.(B)
16.(A) 17.(D) 18.(B) 19.(A) 20.(A)

## MATHEMATICS

21. If $(p, 4)$ point lies on the line $3 x+y=$ 10 , value of $p$ is
(A) 5
(B) 1
(C) 3
(D) 2
22. A fair die is thrown once. The probability of getting neither a prime number nor a composite number is
(A) 1
(B) 0
(C) $\frac{5}{6}$
(D) $\frac{1}{6}$
23. A part of a line with two end points is called a
(A) line - segment
(B) segment
(C) point segment
(D) None of these
24. The distance of the point $\mathrm{A}(4,3)$ from the $x$-axis
(A) 3 units
(B) 4 units
(C) 5 units
(D) 6 units
25. The value of $5 \sqrt{3}-3 \sqrt{12}+2 \sqrt{75}$ on simplifying is
(A) $5 \sqrt{3}$
(B) $6 \sqrt{3}$
(C) $\sqrt{3}$
(D) $9 \sqrt{3}$
26. In the figure, $\angle P Q R=40^{\circ}$ and $\angle R S U=$ $70^{\circ}$ with $Q T I I S U$, what is the value of $\angle P R Q$ ?

(A) $35^{\circ}$
(B) $70^{\circ}$
(C) $85^{\circ}$
(D) $50^{\circ}$
27. If the mean and mode of a data are 30 and 36 respectively, then its median is what?
(A) 40
(B) 32
(C) 55.7
(D) 31.69
28. If the area of an equilateral triangle is $24 \sqrt{3}$ sq. m , then its perimeter is:
(A) 96 m
(B) $12 \sqrt{6} \mathrm{~m}$
(C) $4 \sqrt{6} \mathrm{~m}$
(D) $2 \sqrt{6} \mathrm{~m}$
29. The polynomials $a x^{3}+4 x^{2}+3 x-4$ and $x^{3}-4 x+a$ leave the same remainder when divided by $x-3$, then the value of $a$ is
(A) -1
(B) -4
(C) 4
(D) 1
30. The largest sphere is cut of form a cuboid of dimensions $5 \mathrm{~cm} \times 5 \mathrm{~cm} \times$ 10 cm . The volume of the sphere will be
(A) $27 \pi \mathrm{~cm}^{3}$
(B) $30 \pi \mathrm{~cm}^{3}$
(C) $108 \pi \mathrm{~cm}^{3}$
(D) $\frac{125}{6} \pi \mathrm{~cm}^{3}$

## ANSWER-KEY

21.(D)22.(D) 23.(A) 24.(A) 25.(D)
26.(B) 27.(B) 28.(B) 29.(A) 30.(D)

## MENTAL ABILITY

31. If $P+Q$ means $P$ is the husband of $Q$; $\mathrm{P} \div \mathrm{Q}$ means P is the sister of Q and $\mathrm{P} \times \mathrm{Q}$ means $P$ is the son of $Q$, which of the following shows "A is the daughter of B "
(A) $\mathrm{C} \times B \div A$
(B) $\mathrm{B} \div C \times A$
(C) $\mathrm{D} \times B+C \div A \quad$ (D) $\mathrm{A} \div D \times B$
32. If pen is called pencil, pencil is called scale, scale is called bag and bag is called rubber, which is used to carry the books?
(A) Scale
(B) Pen
(C) Rubber
(D) Bag
33. How many triangles are there in the figure below?

(A) 5
(B) 6
(C) 8
(D) 10
34. The number opposite to 4 is

(A) 1
(B) 2
(C) 5
(D) 6
35. Two ladies and two men are playing cards and are seated at North, East, South and West of a table. No Lady is facing East. Persons sitting opposite to each other are not of the same gender. One man is facing South. Which directions are the Ladies facing?
(A) East and West
(B) South and East
(C) North and East
(D) North and West
36. In each of the following questions, you are given a figure ( x ) followed by four alternative figures (1), (2), (3) and (4)

37. $3,15,35, \ldots, 99,143$.
(A) 63
(B) 69
(C) 77
(D) 81
38. If $20 * 3=180$ and $4 * 5=100$ then value of $7 * 7$ is
(A) 21
(B) 49
(C) 343
(D) 7

## DIRECTION:-Select the water image

39. ACOUSTIC
(A) OILSOODV
(B) VCOחRLIC
(C) $\mathrm{VCO} \mathrm{\cap SLIC}$
(D) VCOnマTIC
40. 


(A) 61
(B) 63
(C) 65
(D)67

## ANSWER-KEY

31.(D) 32.(C) 33.(D) 34.(B) 35.(D)
36.(D) 37.(A) 38.(C) 39.(B) 40.(B)

