

Q1 Complete the following statements by choosing the appropriate alternative from those given in the bracket
1)India share the longest border with $\qquad$ .
(Bangladesh , Pakistan ,China, Nepal)
2)In India mangroves are found in $\qquad$ -.
(Himalayan region, desert areas , Swampy areas ,rain shadow areas )
3)In North Eastern part of Brazil ,__types of settlements are found . (nucleated, Linear ,Dispersed, star shaped,)
4)The Amazon river Basin is mainly $\qquad$ .
(Characterized by droughts, Filled by swamps, covered by dense forests, fertile)
Q2)Match the following
(4)

## A

1) Trans Amazonian
2) Road Transport
3) Rio-De-Janeiro
4) Manmad

## B

a) Tourist Place Highway
b) Railway station in India
c) Golden Quadrilateral
d)Major Highway
e) 40 degree west meridian
(Any 4)

Q3)Answer the following in one sentence
1)Identify the rain shadow area of Brazil .
2)Which region of Brazil have temperate type of climate?
3)What is average life expectancy?
4)By what name are the rainforests in Brazil known as ?
5)Which major river systems are included in Himalayan drainage?

Q4)Mark the following thing on the outline map provided to you. Give index (any 4)
(4)
1)Mumbai -Nagpur railway route 2)Aravalli 3)Two states with moderate density of population
4)Port-Kochin
Q4B Read the map answer the question
(4)
1)Which means of transport are seen on the map ?
2)Which means of transport has denser network ?
3)What could be the reason of development of railways in the South east ?
4)On which river is Manaus Port located ?
1)Rain forest in Brazil are called the "lungs of the world ".
2)The tropical cyclones occur rarely in Brazil
3)It is important to manage the waste generated during field visit

Q6)A)Prepare a multiple bar graph and answer the following questions
(6)
Average Literacy Rate in \%

| Country /year | 1991 | 2001 | 2011 | 2016 |
| :--- | :--- | :--- | :--- | :--- |
| India | 48.2 | 61.0 | 69.3 | 72.2 |
| Brazil | 80 | 86.4 | 91.4 | 92.6 |

1)Which country has higher literacy rate ?
2)In which country the growth rate of literacy is high ?
3) What conclusion can you draw after reading the graph of literacy rate in both the countries.

OR
Q6B) Study the figure and answer the following questions
1)In which country is the proportion of children comparatively more?
2)In which country is the proportion of adults comparatively more ?
3)In which age group in the difference between males and females the maximum in Brazil ?
4)In which country is the number of females more in the age group 15-19?
5)While comparing the age sex pyramid which pyramid has broder base ?
6)Write your opinion about the figure ?

## Q7) Answer in Brief (Any 2)

(8)
1)Explain with examples how field visits increases geographical knowledge.
2)Compare the transportation facilities of Brazil and India and state your conclusion .
3)Write in brief about Himalayas.

## All The Best

## Thakus Educational Trust' 1 (Regd.) <br> THAKUR VIDYA MANDIR HIGH SCHOOL \& JR. COLLEGE <br> III Preliminary Exam 2018-19 <br> Subject : Mathematics - II

Date : 11/01/2019
Marks: 40
Std : X
Time : 2 hrs.
Q.I A. Attempt any 4 sub-questions from the following.

1. Write converse statement of the following statement, "If two lines are parallel then the alternate angles are congruent".
2. If the length of median on the hypotenuse of a right angled triangle is 7 cm . Find the length of the Hypotenuse.
3. What is the value of $\tan 30^{\circ}$ and $\sin 45^{\circ}$.
4. How many lines are there which are parallel to the x axis and having a distance 5 units ? Write their equations.
5. $\angle A C D$ is an exterior angle of $\triangle A B C, \angle B=40^{\circ} \angle A=70^{\circ}$. Find the measure of $\angle A C D$.
Q.I B. Solve 2 out of 3 sub questions.
6. In $\triangle \mathrm{FAN}, \angle \mathrm{F}=80^{\circ}, \angle \mathrm{A}=40^{\circ}$. Find out the greatest and the smallest side of the triangle. State the reason.
7. In Parallelogram $A B C D, m \angle A=x x^{0}$ and $m \angle B=(3 x+20)^{0}$ then find $x$.
8. Find the surface area of the sphere of radius 9 cm .

## Q.IIA. Attempt the following. ( Any 2)

1) In the figure seg DH $\mathrm{GK}=20 \mathrm{~cm} . \mathrm{A}(\Delta \mathrm{DEF})=300 \mathrm{~cm}^{2}$ then find. i) EF ii) $\mathrm{A}(\triangle \mathrm{GEF})$
2) In figure $\mathrm{m}(\operatorname{arc} \mathrm{NS})=125^{\circ}$ $m(\operatorname{arc} E F)=37^{\circ}$.
Find measure $\angle \mathrm{NMS}$.

$3)$ Find the Co-ordinates of midpoint of the segment joining the point $(22,20)$ and $(0,16)$.
Q.II B. Choose the correct-alternative for each of the following questions.
[4]
3) Find the perimeter of a sector of a circle if its measure is $90^{\circ}$ and radius is 7 cm .
A ) 44 cm B) 25 cm c$) 160 \mathrm{~cm}$ d) 99 cm
4) When we see at a higher level, from the horizontal line, angle formed is
A) angle of elevation
B) angle of depression
C) 0
D) Straight angle.
5) Out of the dates given below which date constitutes a Pythagorean triplet?
A) $16 / 08 / 16$
B) $3 / 05 / 17$
C) $15 / 8 / 17$
D) $4 / 9 / 15$
6) $\Delta \mathrm{PQR} \sim \Delta \mathrm{TMN}$ are equilateral triangle, $\mathrm{A}(\Delta \mathrm{PQR}): \mathrm{A}(\Delta \mathrm{TMN})=1: 2$. If $P Q=4$, then what is the length of TM.
A) $2 \sqrt{2}$
B) 4
C) 8
D) $4 \sqrt{2}$
Q.III A. Solve the following questions (any 2)
7) In figure $\mathrm{AB}\|\mathrm{CD}\| \mathrm{FE}$ then find $x$ and AE .

8) Find the diagonal of a rectangle whose length is 16 cm and area is 192.sq.cm
9) Draw a circle of radius 3.5 cm . Take any point $K$ on it. Draw tangent to the circle at K without using Center of this circle.
Q.III B. Complete the following activities (any2)
10) If the slope of the line joining points $(K,-3)$ and $(4,5)$ is $1 / 2$ the find the value of K :
Sol.: $\mathrm{P}(\mathrm{K},-3) \equiv(x, y$,

$$
Q(4,5) \equiv
$$

$\qquad$
Slope PQ $=\frac{\square}{\square}$


$$
4-\mathrm{K}=\square
$$

$$
\mathrm{K}=\square
$$

2) Show that $\frac{\sin \theta}{1+\operatorname{Cos} \theta}=\frac{1-\sin \theta-\operatorname{Cos} \theta}{\operatorname{Sin} \theta-1-\operatorname{Cos} \theta}$

$\square$ $\times \square$ $=(1+$ 므 $) \times(1-$ $\square)$
$\frac{\operatorname{Sin} \theta}{1+\square}=\frac{1-\square}{\operatorname{Sin} \theta}$
$\frac{-\operatorname{Sin} \theta}{-1-\square}=\frac{\square}{\operatorname{Sin} \theta}$
By theorem in equal ratio. $\square=\square$
3) In fig $O$ is center . and seg $P Q$ is chord of the circle. $\angle P Q R=90^{\circ}$ and area of shaded region is 114 sq cm . Find the radius of the circle ( $\pi=3.14$.)

Given : central angle $=\square=90^{\circ}$
Area of shaded region = $\qquad$ $=114 \mathrm{sq} . \mathrm{cm}$.
To find : $\qquad$ of circle.

Sol.: Area of segment $=$ $\square$

$114=$

$114=r^{2}\left[\frac{1.14}{4}\right]$
$\mathrm{r}^{2}=$
r =
Q.IV. Attempt any three of the following

1) Prove Inscribed angle theorem (Center lies in the interior of the angle).
P
2) In the fig. $\triangle P Q R$ is an equilateral triangle. Point $S$ is an seg $Q R$ such that $\mathrm{QS}=1 / 3 \mathrm{QR}$ Prove that : $9 \mathrm{PS}^{2}=7 \mathrm{PQ}^{2}$

3) $\triangle \mathrm{PQR} \sim \Delta \mathrm{PMN}$, In $\triangle \mathrm{PQR} \mathrm{PQ}=4 \mathrm{~cm}, \mathrm{QR}=5 \mathrm{~cm} \& \mathrm{PR}=6 \mathrm{~cm}$. Construct $\triangle \mathrm{PQR}$ \& $\triangle \mathrm{PMN}$ such that $=\frac{P R}{P N}=\frac{3}{5}$
4) Find the Co-ordination of the centre of the circle passing through the point $P(6,6), Q(3,-7)$ and $R(3,3)$

## Q.V. Solve any one of the following

1) A ship of height 24 cm is sighted from the top of the light house, the angle of depression to the top mast and the base of the ship is $30^{\circ}$ and $45^{\circ}$ respectively. How far is the ship from the light house?
2) Two poles of height 'a' meters and 'b' meters are 'p' meters apart. Prove that the height $h$ drawn from the point of intersection $N$ of the lines joining the top of each pole to the foot of the opposite pole is $\frac{a b}{a+b}$ meter.

Q.VI. Solve any one of the following
3) A Semi-Circular sheet of metal of diameter 28 cm is bent into an open conical Cup. Find the depth and capacity of cup.
4) In $\triangle \mathrm{ABC} ; \quad \angle \mathrm{ABC}=135^{\circ}$

Prove that $\mathrm{AC}^{2}=\mathrm{AB}^{2}+\mathrm{BC}^{2}+4 \mathrm{~A}(\triangle A B C)$

## ALL THE BEST

## THAKUR VIDYA MANDIR HIGH SCHOOL \& JR. COLLEGE <br> III - Preliminary Exam 2018-19 <br> Subject: Mathematics - I

Std : X
Marks : 40
Date:94-January, 2019
: 2 hrs.
Q I. A) Solve any four of the following.
(4)

1. If $n(A)=15, n(A$ Ǔ $B)=20, n(A \cap B)=7$, then $n(B)=$ ?
2. If $3 x+5 y=9 \& 5 x+3 y=7$, then what is the value of $x+y=$ ?
3. A boy attempts $x+y$ sums, of which only $y-2 z$ sums are correct. Find the number of wrong sums.
4. Express $\sqrt[4]{243}$ as a mixed surds.
5. If the ratio of two number is $3: 5$ and their sum is 360 , find these numbers.
6. Compute the income tax payable by Mr. Khan who is 65 yrs of age and his taxable income is Rs. 4,50,000.

## Q I . B) Solve any two of the following.

(4)

1. Find two rational numbers between -0.2 and -0.22
2. Verify which ordered pair $\left(2, \frac{11}{4}\right)$ and $\left(3, \frac{1}{2}\right)$ satisfy the equation $3 x+$ $4 y=17$
3. Complete the following table.


$Q$ II. A) Choose the correct option from the following $\mathcal{E}$ complete the sentence.
(4)
4. The graphs of the equation do not intersect each other therefore the lines represented by these equations are $\qquad$ .
a) Coincident
b) Parallel
c) Intersecting
d)

Overlapping
2. The value of the following determinant is $\qquad$
а) $0\left|\begin{array}{cc}1.2 & 0.03 \\ 0.57 & -0.23 \\ 2391 & \end{array}\right|$
b) -0.2391
c) 0.2931
d) 0.2931
3. Market value of a share is Rs. 200. If the brokerage rate is $0.3 \%$, then the purchase value of the share will be $\qquad$
a) 206.66
b) 200.60
c) 206.60
d)
260.60
4. Sum of first five multiples of 3 is $\qquad$
a) 45
b) 55
c) 15
d) 75

## Q II. B) Solve any two of the following.

(4)

1. In a flower bed there are 23 rose plants in the first row, 21 in the second, 19 in the third and so on. There are 5 rose plants in the last row. How many rows are there in the flower bed?
2. A survey conducted on 20 house holds in a locality by a group of students resulted in the following frequency table for the number of family members in a house hold. Find the mode of the given data.

| Family Size | $1-3$ | $3-5$ | $5-7$ | $7-9$ | $9-11$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. of family | 7 | 8 | 2 | 2 | 1 |

3. One person pays Rs. 405 as bus fare for three adults from place $A$ to $B$ and one adult from place A to place C. Another person pays Rs. 620 as bus fare for two adults from place $A$ to place $B$ and three adults from place A to Place C. Find the bus fare for place A \& B and between A and C .
$Q$ III. A) Complete any two of the following activities.
(4)
4. Complete the following table according to the instruction give:

| Class | $18-19$ | $19-20$ | $20-21$ | $21-22$ |
| :--- | :---: | :---: | :---: | :---: |
| Class Mark |  |  |  |  |


| Frequency | 4 | 13 | 15 | 19 |
| :--- | :---: | :---: | :---: | :---: |
| Co-ordinates of point |  |  |  |  |

2. For each sequence, find the next two terms and complete the table
a) $192,-96,48,-24$, $\qquad$ . b) $\frac{1}{2}, \frac{1}{6}, \frac{1}{18}, \frac{1}{54}, \square, \square$
3. Complete the following table according to the general form of Quadratic Equation.

| Quadratic Equation | General form | a | b | c |
| :---: | :--- | :--- | :--- | :--- |
| $x^{2}-4=0$ |  |  |  |  |
| $y^{2}=2 y-7$ |  |  |  |  |
| $x^{2}+2 x=0$ |  |  |  |  |
| $(l+2)(l-5)=0$ |  |  |  |  |

Q III. B) Solve any two of the following.
(4)

1. Bashikiran purchased 100 shares of MV Rs. 40 . Brokerage paid at the rate of $0.5 \%$ and rate of GST on brokerage is $18 \%$. Find the total amount he paid for the share purchased.
2. The sum of ages of husband and his wife is four times the sum of their children. Four years ago, the ratio of sum of their ages to the sum of ages of their children was 18:1. Two yrs. hence the ratio will be $3: 1$. How many children do they have?
3. Solve Quadratic equation by formula method:
$5 m^{2}+5 m=1$

## Q IV) Solve any three of the following.

(9)

1. Smt. Mita Agarwal invested Rs.10,200 when MV of the share is Rs.
2. She sold 60 shares when the MV was Rs. 125 and sold remaining shares where MV was Rs. 90 , she paid $0.1 \%$ brokerage for each trading. Find whether she made profit or loss? And how much?
3. The annual investment of a family are shown in the adjacent Pie diagram. Answer the following question based on it.
a) If he invested in shares Rs. 2,000, find the investment.
b) How much amount is deposited in bank?
c) How much more money is invested in immovable
 property than in Mutual Fund?
4. If the cost of banana is increased by Rs. 1 per dozen, one can get 2 dozen less for Rs. 840. Find the original cost of one dozen banana.
5. Ajay Sharma repays the borrowed amount of Rs. $3,25,000$ by paying Rs. 30,500 in the first month and then decreases the payment by Rs. 1,500 every month. How long will it take to clear his amount?

## $Q$ V) Solve any one of the following.

(4)

1. Find the lower boundaries and upper boundaries of the classes for the following consecutive class marks $0.34,0.54$.
2. Father and son together complete a task in 15 days. If one days work of father is 3 times one days work of his son .Find the number of days required by each alone to complete the task.

## $Q$ VI) Solve any one of the following.

(3)

1. Solve the given quadratic equation by completing square method. $9 m^{2}-12 m+2=0$
2. A pair of fair dice each numbered as $-3,-2,-1,1,2,3$ are thrown. Write the sample space \& number of sample points. Find the probability of the following events.
a) The product of the numbers on their upper face is a positive integer.
b) The sum of the numbers on their upper face is zero.


## Q1) A) Attempt the following Questions.

(5)

1) Find the odd one out :Edible oil , Crude oil , LPG, CNG
2) Say true or false :In thermal power plants, the turbines work on solar energy.
3) Name the following : I am diploblastic and acoelomate. Which phylum do I belong to?
4) Fill in the blanks:
i) Enzyme $\qquad$ obtained from fungi is used to produce vegetarian cheese.
ii) Laughter club is a medicine to drive away $\qquad$

## QIB) Multiple choice question.

(5)

1) A slide of Amoeba with elongated nuclei represents which of the following?
a) Budding
b) Multiple fission
c) Binary Fission
d) Regeneration.
2) Which of the following produce sperm cells?
$\begin{array}{llll}\text { a) Seminal vesicle } & \text { b) Urinary bladder } & \text { c) Testes } & \text { d) Cowper's gland. }\end{array}$
3) Heart of cockroach has how many compartments?
a) 2
b) 3
c) 4
d) 13 .
4) Which part is modified to form wings in pigeon?
a) Forelimbs
b) Hindlimbs
c) Thorax parts
d) None of these.
5) Where are Microbial enzymes not used?
a) Glass industry
b) tanning of leather
c) cheese production
d) paper industry .

## Q2) Answer the following (any 5)

(10)

1) Write a note on Mockdrill.
2) Which factors affect the social health.
3) Explain the importance of fruit processing in humanlife ?
4) Complete the Chart.

5) What is menstrual cycle ? Describe it in brief?
6) Explain the process of formation of Complex proteins.
7) Distinguish between Conventional and Non- Conventional source of energy.

## Q3) Answer the following (any 5)

## (15)

1) Write a note on Disaster Management Act 2005.
2) Write a comparative note on usefulness and harmfulness of biotechnology.
3) Complete the following conceptual picture related to environmental management.

4) Complete the following chart.

| Type | Character | Example |
| :---: | :---: | :---: |
| Cyclostomata |  |  |
|  | Gill respiration |  |
| Amphibia |  |  |
|  |  | Whale |
|  | Poikilotherms |  |

5) What are the meanings of following symbols? write your role accordingly.

6) With the help of suitable diagrams explain the mitosis in detail.
7) Explain the process of formation of complex proteins.

Q4) Answer the Following: (any 1)
(5)

1) Label the following parts and write the function of it.

2) Answer the following questions based on the diagram.

i) With reference to point B , potential energy of how much water reservoir in the dam will be converted into kinetic energy?
ii) What will be the effect on electricity generation, if the channel taking water to turbine starts at point A.
iii) What will be the effect on electricity generation, if the channel taking water to turbines starts at point C.
iv) Name the method of producing electricity.

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|  | Shakur Educational Srust's (Regd.) |
| :--- | :---: |
| THAKUR VIDYA MANDIR HIGH SCHOOL \& JR.COLLEGE |  |
| II Preliminary Exam 2018-2019 |  |
| Subject: Science \& Technology I. |  |
| Name: | STD: X Div:__ Roll No: |
| Marks: 40 | Date: $/ 12 / 2018$ |

Q1) A) Attempt the following Questions.

1) Name the following :
a) A type of satellite used for telecasting programmes.
b) The force with which the earth attracts the given object.
ii) Fill in the blanks.
a) In Galvanizing a thin layer of $\qquad$ is applied to prevent Corrosion of iron.
iii) Say true or false.
i) Electron configuration of $\mathbf{K}$ is $2,8,8,2$.
2) Find the odd one out.

Boron, Silicon, Neon, Polonium.

## QIB) Multiple choice question.

1) For the normal eye, the distance of distinct vision is $\qquad$ .
a) 15 cm ,
b) 20 cm ,
c) 25 m ,
d) 25 cm
2) In which book of the modern periodic table are the non-metals found?
a) S- block
b) P- block
c) d - block
d) f - block
3) Alternative current is $\qquad$ -.
a) In forward direction b) in reverse direction c) in one direction d) oscillation.
4) If an opaque object lies in the path of light a $\qquad$ is formed.
a) design
b) rainbow
c) shadow
d) image.
5) The unit of heat is $\qquad$ in SI units.
a) calories b)Joule c)fahreneit d)ampere .

Q2) Answer the following (any 5) (any 6)

1) Distinguish between mass and weight.
2) Explain Mirage with an example
3) It takes time for pieces of Shahabab tile to disappear in HCl , but its Powder disappears rapidly .
4) In practice the unit kwh is used for the measured of electrical energy rather than joule.
5) Explain :- In Cold regions in winter, the rocks cracks due to anomalous expansion of water.
6) Generally the ionic Compounds have high melting point.
7) Why are geostationary satellites not useful for studies of Polar regions?

Q3) Answer the following Questions (any 5)

1) Give the Demerits of Mendeleev's periodic table.
2) Explain Bayer's process of extraction of Aluminium.
3) Explain the working of an astronomical telescope using refraction of light.
4) Draw ray diagram for a Convex lens when the object is at $f_{1}$.
5) Explain the role of latent heat in the change of state of a Substances?
6) Explain the term Combination reaction, Balanced equation, Displacement reaction.
7) Show how Kepler's law is useful by Newton to arrive at the inverse square law of gravity?

Q4) Attempt the following (any 1)

1) Explain the Construction and working of electric Generator Ac.
2) Explain hydraulic separation method and draw an appropriate diagram for it.
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## ****ALL THE BEST****



## Q1) A) Attempt the following Questions.

(5)

1) Name the alloy of Copper and Zinc.
2) Co-relation: $2 \mathrm{H}_{2}+\mathrm{O}_{2} \longrightarrow 2 \mathrm{H}_{2} \mathrm{O}$ :Combination:: $2 \mathrm{HgO} \longrightarrow 2 \mathrm{Hg}+\mathrm{O}_{2}:$
3) Fill in the blanks.
a) The amount of water vapour in air is determined in terms of its $\qquad$ -.
b) The ratio of $g_{\text {earth }} / g_{\text {moon }}$ is equal to $\qquad$ —.
4) Say true or false.
i) The Image formed by a Convex lens is Virtual .

## QIB) Multiple choice question.

(5)

1) $\qquad$ is used in balloons and in scuba diving.
a) Helium
b) Oxygen
c)Nitrogen
d) Ozone
2) If the potential difference across a wire is 2 V and the current through the wire is 1 A , the electric power is $\qquad$
a) 4 W
b) $1 / 2 \mathrm{~W}$
c) 2 W
d) $1 / 4 \mathrm{~W}$
3) Concave mirror are called as $\qquad$ -.
a) Converging mirror b) Diverging mirror c) Plane mirror d) None of these.
4) $\mathrm{C}_{7} \mathrm{H}_{16}$ is $\qquad$ b) Octane
c) Methane
d)Heptane.
a) Hexane
5) Which of the following Satellite launchers is developed in India?.
a) INSAT
b) IRNSS
c) EDUSAT
d) PSLV .

Q2) Answer the following (any 5)
(10)
8) Identify the type of Reaction and Give the suitable reaction for the same.

9) Complete the following table.

10) Draw a ray diagram for the Image formed by a convex lens where the object is at $2 \mathrm{~F}_{1}$.
11) Give two characteristics of Resistance connected in Series.
12) Observe the Figure and Write down the answers of the following questions.

a) What is this process called?
b) Define it.
13) Give the Properties of covalent compounds.
14) Metallic character goes on decreasing while going from left to right in a period.

## Q3) Answer the following (any 5)

(15)

1) Identify the figure and explain their use.

2) Explain the following temperature Vs time graph.

3) Explain the activity shown in the figure given below.

4) Explain the position of Isotopes in the Mendeleev's and the Modern periodic table.
5) Explain the phenomenon shown in the figure given below.

6)Answer the question based on the following figure.

a) Name the method used in the picture and for which ore.
b) Name the oil added in it.
6) Draw all possible structural formulae of compounds from their molecular formula given below.
a) $\mathrm{C}_{3} \mathrm{H}_{8}$
b) $\mathrm{C}_{4} \mathrm{H}_{10}$
c) $\mathrm{C}_{3} \mathrm{H}_{4}$

## Q4) Answer the Following:(any 1)

(5)
3) Explain the Principle and working of an Electric Generator(AC) with a neat labeled diagram.
4) 2) Explain the defects shown in the figure given below .Explain the working of an astronomical telescope using refraction of light.


|  | Shakur Educational Srust's (Regd.) |
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Q3) Answer the following Questions (any 5)

1) Give the Demerits of Mendeleev's periodic table.
2) Explain Bayer's process of extraction of Aluminium.
3) Explain the working of an astronomical telescope using refraction of light.
4) Draw ray diagram for a Convex lens when the object is at $f_{1}$.
5) Explain the role of latent heat in the change of state of a Substances?
6) Explain the term Combination reaction, Balanced equation, Displacement reaction.
7) Show how Kepler's law is useful by Newton to arrive at the inverse square law of gravity?

Q4) Attempt the following (any 1)

1) Explain the Construction and working of electric Generator Ac.
2) Explain hydraulic separation method and draw an appropriate diagram for it.
3) Explain Mirage with an example
4) It takes time for pieces of Shahabab tile to disappear in HCl , but its Powder disappears rapidly.
5) In practice the unit kwh is used for the measured of electrical energy rather than joule.
6) Explain :- In Cold regions in winter, the rocks cracks due to anomalous expansion of water.
7) Generally the ionic Compounds have high melting point.
8) Why are geostationary satellites not useful for studies of Polar regions?

## Q3) Answer the following Questions (any 5)

(15)

1) Give the Demerits of Mendeleev's periodic table.
2) Explain Bayer's process of extraction of Aluminium.
3) Explain the working of an astronomical telescope using refraction of light.
4) Draw ray diagram for a Convex lens when the object is at $f_{1}$.
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7) Show how Kepler's law is useful by Newton to arrive at the inverse square law of gravity?

## Q4) Attempt the following (any 1)

(5)
3) Explain the Construction and working of electric Generator Ac.
4) Explain hydraulic separation method and draw an appropriate diagram for it.
 (Olympia- Greece, Rome, India, China))
2. Thomas Cook established a travel agency selling ___. (handicrafts, toys, food items, tourist tickets )
3. Louvre Museum has in its collection the much acclaimed painting of
$\qquad$ . (Napoleon, Mona Lisa, Hans Sloan, George II )
4. Baburao painter made the movie, $\qquad$ . (Pundalik, Raja Harishchandra, Sairandhri,Bajirao-Mastani)

Q1. B. Identify the wrong pair, correct it and rewrite:
$\begin{array}{ll}\text { a. 1. Mallakhamb -- } & \text { Head of the village } \\ \text { 2. Water polo } & \text { Water sport } \\ \text { 3. Skating } & - \\ \text { Adventurous ice sport } \\ \text { 4. Chess } & - \\ & \text { Outdoor game }\end{array}$
b 1. Georg Wilhelm Friedrich Hegel - Reason in History
2. Leopold von Ranke - The theory and Practice of History
3. Herodotus - The Histories
4. Karl Marx - Discourse on the Method
c 1. Who are the Shudras - Dr Babasaheb Ambedkar
2. Stri-Purush Tulana - Feminist Writing
3. The Indian War of Independence 1857 - Marxist History
4. Grant Duff - Colonial History
d 1. Maharaja Sayajirao University - Delhi
2. Banaras Hindu University - Varanasi
3. Aligarh Muslim University - Aligarh
4. Jiyaji University - Gwalior

Q2. A. Complete the concept map. (any 2)


1. Marathi theatre
2. Subaltern historiography
3. Saraswati Mahal Granthalay

Q3. A Explain the statements with reasons. (any 2)

1. Writing of regional history received momentum.
2. Toys can tell us about cultural history.
3. It is important to take a few primary precautions in order to preserve the historical heritage sites.

Q3. B. Answer in brief. (any 2)
(6)

1. Find out the world cultural heritage sites located in Maharashtra and write their names.
2. Explain the objectives of newspapers.
3. Write about Gandhara school of art.

Q4. Read the passage and answer the questions based on it.
Bal J. Pandit was the first Indian cricketer to pioneer cricket commentary. People used to listen very eagerly to his broadcasts from Akashvani. His wellstudied commentaries were full of information about the history of the playground, career history of players, anecdotes about the game and established records of the game. His commentaries used to be entertaining because of these historical details

1. Who was the first Indian cricketer to pioneer cricket commentary? (1)
2. What does a cricket commentator do? (1)
3. What made the commentary of Bal J. Pandit entertaining? (2)

Q5. Answer the following in detail. (any 2)

1. Explain Leopold von Ranke perspective of history?
2. Identify the given picture and write in detail the information regarding it.

3. Complete the following table :

|  | Bhajan | Keertan | Lalit | Bharud |
| :--- | :--- | :--- | :--- | :--- |
| Characteristics |  |  |  |  |
| Examples |  |  |  |  |

## POLITICAL SCIENCE

Q6. Fill in the blanks in the given statements choosing the correct alternative from the brackets.

1. $\qquad$ is the main demand of farmers movement. (Right to cultivate on forest land, To get the right price for agricultural product, Protection of consumers, Building of dams)
2. Justice party a non-Brahmin moment was transformed into __Political party.( Assam Gan Parishad, Shiv Sena, Dravida Munnetra Kazhagam, Jammu and Kashmir National Conference)
3. $\qquad$ was appointed as the first Chief Election Commissioner of independent India. ( Sukumar Sen, T. N. Sheshan, Dr. Rajendera Prasad, Neela Satyanarayanan)
4. $\qquad$ created a favourable environment for women to secure freedom and self development. (Right to Information Act, Dowry prohibition Act, Food security Act, None of the above)

## Q7. Explain with reason whether the statements are true or false.

 (any 2)1. Under special circumstances the Election Commission holds re-elections in a particular constituency for a second time.
2. Coalition politics leads to instability.
3. Alertness is required to sustain democracy.

Q8. A. Explain the concept. (any 2)

1. National parties
2. Women representation in the Loksabha
3. Farmers movement

Q8. B. Do as directed/instructed.
Complete the following concept maps. (any 2)


1. For which reforms were the women's movement in the pre-independence period fighting?
2. What changes have taken place in the nature of political parties in India?
3. Which decision of the Court has resulted in protection of honour and dignity of women?
