

II Preliminary Exam 2017-2018

Std. : **X**

Sub. : **General Maths II**

Marks : **40**

Date : 27/11/2017

Time : 2 hrs.

Q.1. Attempt the following (any 5).

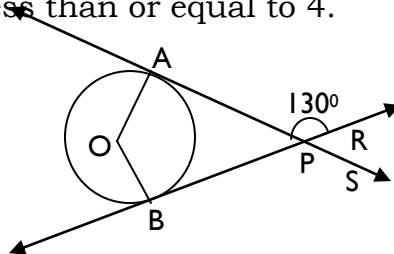
[5]

- 1) If $\Delta ABC \sim (\Delta DEF)$ $A(\Delta ABC) = 9\text{cm}^2$, $A(\Delta DEF) = 64\text{cm}^2$, $DE = 5.6\text{cm}$, then find AB.
- 2) Find the value of : $\sin^2 90^\circ - \tan^2 45^\circ$
- 3) Draw a line PQ, take a point R on the line. Draw perpendicular to the line PQ passing through Point R.
- 4) Edge of a cube is 3.5 cm find area of its base.
- 5) If $\sin B = 7/25$ find cosecB
- 6) Find the height of the right angled triangle whose base is 12 and hypotenuse is 13.

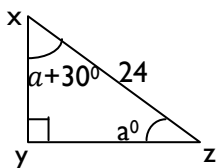
Q.2. Attempt the following. (Any 4)

[8]

- 1) The length breadth height of a cuboid are 10cm 6cm and 13cm respectively. Find its total surface area.
- 2) A die is thrown. What is the probability of getting
i) a number greater than 4. ii) a number less than or equal to 4.
- 3) Find angle between two radii at the centre of the circle given in fig. Line PA & PB are tangents to the circle at the other ends of the radii and $\angle APR = 130^\circ$



- 4) Draw a segment PQ of length 7.5 cm and bisect it.
- 5) In ΔXYZ , $\angle y = 90^\circ$,
 $\angle z = a^\circ$ and $\angle x = (\theta + 30^\circ)$
If $xz = 24$ find xy .



Q.3. Attempt the following. (Any 3)

[9]

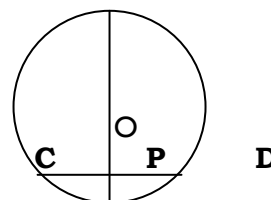
- 1) 1) In ΔABC , P is any point on AB such that ray CP is angle bisector of $\angle ACB$. If $CA = 6$, $CB = 4$ then find $\frac{AP}{PB}$

PB

- 2) A Chord CD of a circle with centre O is bisected

at P by the diameter AB. If $AB = 30$, $OP = 9$,

Calculate the lengths of i) CD ii)AD iii)BC



- 3) Construct in circle of ΔPQR in which $QR = 6.1\text{ cm}$., $PR = 7.2\text{ cm}$., and $\angle QRP = 55^\circ$

- 4) Volume of a cone is 1256 cm^3 and radius is 10 cm. Find its height. ($\pi = 3.14$)

Q.4. Attempt the following. (Any 2)**[8]**

- 1) State and prove Pythagoras theorem.
- 2) As shown in fig. $\square ABCD$ is the cyclic quadrilateral.
Chord $AB =$ chord BC , chord $AD =$ chord CD ,
 $\angle ADC = 3x$, $\angle ABC = 2x$.
Find the measure of each angle of the quadrilateral $ABCD$.
- 3) A flagstaff stands on a ground. From a point C ,
150 m away from the foot,
the angle of elevation with the top of the flagstaff is 30° ,
find the height of the flagstaff.

Q.5. Attempt the following (Any 2).**[10]**

- 1) Draw segment RS of length 6.5 cm. Draw a circle with segment RS as diameter.
Draw tangents from points R and S .
- 2) The volume of a cone is same as that of volume of a cylinder whose height is 9 cm and diameter 40 cm. Find the radius of the base of the cone if its height is 108 cm.
- 3) The weight of coffee (in gms) in 70 packets is given below.

Weight (in gms)	200-201	201-202	202-203	203-204	204-205	205-206
No. of Packets	12	26	20	9	21	1

Determine the modal weight of coffee in a packet.

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Thakur Educational Trust's (Regd.)

Thakur Vidya Mandir High School & Junior College
(ISO 9001:2008 CERTIFIED)

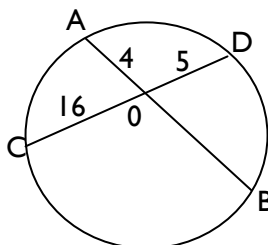
II Preliminary Exam 2017-2018Std. : **X**Sub. : **Geometry**Marks : **40**

Date : 27/11/2017

Time : 2 hrs.

Q.1. Attempt the following (any 5).**[5]**

- 7) If $\Delta ABC \sim (\Delta DEF)$ $A(\Delta ABC) = 9\text{cm}^2$, $A(\Delta DEF) = 64\text{cm}^2$, $DE = 5.6\text{cm}$, then find AB
- 8) In the adjoining figure. Chord AB & CD intersect to each other at point O .
Find BO .

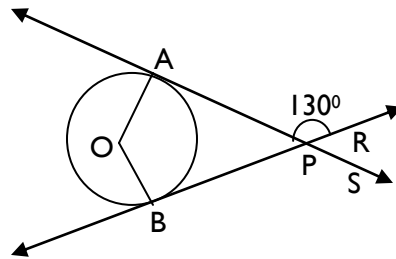


- 9) Draw a line PQ, take a point R on the line. Draw perpendicular to the line PQ passing through Point R.
- 10) For the angle in standard position if the initial arm rotate 25° , in anti clock wise direction. then the state the quadrant in which terminal arm lies.
- 11) Find slope of line with inclination 30°
- 12) Find slope and y - intercept of the lines. $y = -2x+3$.

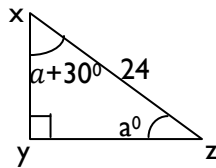
Q.2. Attempt the following. (Any 4)

[8]

- 6) The length breadth height of a cuboid are 10cm 6cm and 13cm respectively. Find its total surface area.
- 7) Write the equation : $4x - y - 7 = 0$ in double intercept form and write x intercepts & y intercepts.
- 8) Find angle between two radii at the centre of the circle given in fig. Line PA & PB are tangents to the circle at the other ends of the radii and $\angle APR = 130^\circ$



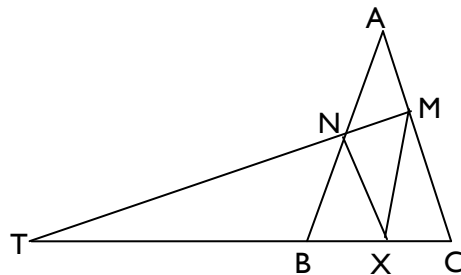
- 9) Find $\sin \theta$ & $\cos \theta$ in standard position whose terminal arm passes through the point $(-1, \sqrt{3})$
- 10) In ΔXYZ , $\angle y = 90^\circ$, $\angle z = a^\circ$ and $\angle x = (a + 30^\circ)$. If $xz = 24$ find xy .



Q.3. Attempt the following. (Any 3)

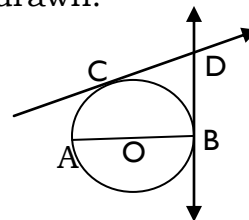
[9]

- 1) Prove that : If a secant is drawn through the point of contact of a tangent to circle then the angles which the tangent makes with the chord contained in the secant are equal respectively to the angles subtended by the chord in the corresponding alternate segments.
- 2) Let X be any point on the side BC of ΔABC , XM and XN are drawn parallel to BA & CA. MN meets produced CB in T. Prove that $TX^2 = TB \cdot TC$.



: 2 :

- 3) In the adjoining figure, O is the centre and seg AB is a diameter, At the point C on the circle the tangent CO is drawn. Line BO is a tangent to the circle at the point B Show that seg $OD \parallel$ chord AC.



- 4) Find the equation of the line passing through $(-3,-5)$ and parallel to $x - 2y - 7 = 0$

Q.4. Attempt the following. (Any 2)

[8]

- 1) In ΔABC , $\angle B = 90^\circ$, Seg BD is median $AB^2 + BC^2 = 169$. Draw in circle of ΔABC .

2. A (5,4) , B (-3,-2) and C (1, -8) are the vertices of a triangle ABC. Find the equation of median AD and line parallel to AC passing through point B.

3) From a point on the roof of a house, 11 metres high it is observed that the angle of depression of the top and foot of a lamp post are 30° , & 60° respectively. What is the height of the lamp post?

Q.5. Attempt the following (Any 2).

[10]

1) Water flows, at 9 km per hour, through a cylindrical pipe of cross-sectional area 25 cm^2 . If this water is collected into a rectangular cistern of dimensions 7.5 m by 5 m by 4 m; calculate the rise in level in the cistern in 1 hour 15 min.

2) Two chords AB and CD intersect at P inside the circle. Prove that the sum of the angles subtended by the arcs AC and BD at the centre O is equal to twice the angle APC.

3) In ΔABC if D is a point on BC such that $\frac{BD}{DC} = \frac{AB}{AC}$, prove that AD is bisector of $\angle A$

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Thakur Educational Trust's (Regd)

THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE

II Preliminary Exam 2017 - 2018

Subject: General Mathematics - I

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40

Date: 21/11/2017

Time: 2hrs

Q1) Attempt any five of the sub-questions:

(5)

- (i) Find the next one term of the given sequence: 4, 7, 10, 13,...
- (ii) Write the equation $7y=3x + 23$ on general form of linear equation in two variables.
- (iii) Write the given equation in standard form of quadratic equation: $-4y + 3 = y^2$
- (iv) Check whether the given equation is quadratic equation: $2x^3 - 4=0$
- (v) If sale price is Rs 200 and CST is Rs 4, then find the actual selling price.
- (vi) If printed price is Rs 500 and discount is Rs 50, then find the selling price.

Q2) Attempt any four of the sub-question:

(8)

- (i) Solve the given quadratic equation by factorization method: $x^2 - 11x + 24 = 0$.
- (ii) If n^{th} term of a sequence is given. Find the first two terms of $t_n = n - 1$

- (iii) When 'a' varies directly as 'b³'; and $a = 2$ when $b = 1$. Find the value of a when b is 3.
- (iv) Check whether the given sequence is an AP or not: 5, 9, 13, 17,.....
- (v) Solve the following simultaneous equations by the method of elimination:
 $3x - 4y = 14$; $4x + 4y = 0$

Q3) Attempt any three of the sub-question:

(9)

- (i) Find the 15th term of an AP : 10, 14, 18, 22,.....
- (ii) If x varies inversely as y , complete the following table.

x	36	12	9	...
y	2	24

- (iii) Babu seth purchased some pipes for Rs 8,600 and sold them to Vinod for Rs 9,300. Compute M-VAT by subtraction method, if the VAT rate is 5%.
- (iv) The wavelength of a sound and its frequency are inversely proportional to each other. If the frequency is 280 Hertz, then wavelength is 60cm. find the frequency when the wavelength is 100cm.

Q4) Attempt any two of the sub-question:

(8)

- (i) Find s₂₅ of an A.P.: 4, 8, 12, 16, ...
- (ii) Solve the following simultaneous equations: $12x + 13y = 62$ and $13x + 12y = 63$
- (iii) A salesman is paid 7% commission on the total sales and an additional incentive at 4% on excess sales over Rs50,000. Find the total earnings on a total sale of Rs 75,000.

Q5) Attempt any two of the sub-question:

(10)

- (i) In a mangrove, each vertical line has 4 more trees than the horizontal row. If the total number of trees in the grove is 480, then find the number of trees in each horizontal row.
- (ii) A bicycle is sold for Rs. 3000 cash or for Rs 1000 cash down payment followed by two monthly instalments of Rs 1024 each. Compute the rate of interest charged under the instalment scheme.

- (iii) Mr. Sudhakarrrao purchased 5 quantals of wheat and 1 quantal rice for a year. He paid Rs 10,000 to the grain merchant. Rate of rice is Rs500per quantal less than twice the rate of wheat. Find the rate per quantal of wheat and rice.

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THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE

II Preliminary Exam 2017 - 2018

Subject: Algebra

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40

Date: 21/11/2017

Time:2hrs

Q1) Attempt any five sub-question from the following: (5)

- (i) For an A.P., If $a = 10$ and $d = 3$, find t_n .
- (ii) Write the quadratic equation whose roots are -2 and -3.
- (iii) Write the sample space of an event of selecting a day of a week.
- (iv) If $A = 12.5$, $\bar{u} = 0.25$, $h = 4$ then write the value of mean.
- (v) The sum of the natural number and its square is 30, form the quadratic equation using variable x .
- (vi) What is the first term of an A.P. whose third term is 440 and the common difference is -20?

Q2) Attempt any four sub-question from the following: (8)

- (i) Find the value of discriminant for the quadratic equation: $x^2 + 7x + 6 = 0$
- (ii) What is the equation of a line parallel to the y-axis and 3 unit to the left of it?
- (iii) For a certain frequency distribution the value of mean is 101 and that of median is 100. Find the mode.
- (iv) For an A.P., if $a = 6$ and $d = 3$, find S_{10} .
- (v) Two coins are tossed simultaneously, write the sample space(S), $n(S)$, the following event A using set notation and $n(A)$, where A is the event of getting at least one head.

Q3) Attempt any three sub-question from the following: (9)

- (i) How many three digit natural numbers are divisible by 5?
- (ii) Find k , if the roots of the quadratic equation $x^2 + kx + 35 = 0$ are in the ratio 5:7.
- (iii) Solve the following simultaneous equation: $\frac{1}{x} + \frac{1}{y} = 12$; $\frac{3}{x} - \frac{2}{y} = 1$

1. The highest peak in the Western Ghat is _____.
2. The _____ people had a nomadic pastoral life in the upper Indus Valley.
3. _____ project is built on the river Satluj.

Q I B) **Match The Column**

(3)

A	B
1. Chokla	a) Goats
2. Nagauri	b) Camels
3. Lohi	c) Sheep
	d) Bullocks

Q II A) **Give Geographical Reasons**

1. Wool Industry has developed in Rajasthan.
2. Rural settlement in the Peninsular part exhibit mixed type.
3. Forest area is decreasing in the middle Ganga Plain.

Q II B) **Write Short Notes (Any Two)**

1. Physiography of the Gujarat Coast.
2. Wildlife in Himalayas.
3. Culture of Punjab and Haryana.

Q III A) **With the help of the following data prepare a Simple Line Graph**

Years	Per Capita Income (in Rupees)
2000 - 2001	18000
2001 - 2002	19000
2002 - 2003	20000
2003 - 2004	24000
2004 - 2005	27000

Q III B) **Observe the map and answer the following questions**

1. Which landform is there on the northwestern boundary of the Central Highlands?
2. Which is the easternmost plateau in this region?
3. Which river separates Baghelkhand from Bundelkhand?

4. Which hill ranges lie to the south of the Vindhya Range?

Q III C) **Mark the following in the outline map of India**

1. Chilka Lake
2. Western Himalayas
3. Mumbai Port
4. Maharashtra Plateau

Q IV **Answer in Brief**

1. What are the environmental problems of the Western Ghats and Western Coastal Regions.
2. Explain any three sub divisions of Deccan Plateau in details.
3. Explain the climate of Punjab and Haryana.

Q V **Fill In The Blanks**

1. An economy is a combination of _____ activities.
2. Goods and Services are produced and supplied by _____ sector on the basis of "No Profit , No Loss".

Q VI **Answer in one or two sentences (Any Three)**

1. What is an economy?
2. What is a private sector?
3. Which classes are the gainers during inflation?
4. What are the main objectives of PDS?
5. What is meant by food adulteration?

Q VII **Answer in Brief (Any One)**

1. Explain the rights of the consumers.
2. Explain fiscal measures to control inflation.

Thakur Educational Trust's (Regd)

THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE

II Preliminary Exam. 2017- 2018

Subject: Geography & Economics.

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40 Date: 24/11/2017 Time: 2hrs.

Q I A) **Fill In The Blanks** (3)

1. The highest peak in the Western Ghat is _____.
2. The _____ people had a nomadic pastoral life in the upper Indus Valley.
3. _____ project is built on the river Satluj.

Q I B) **Match The Column** (3)

A

1. Chokla
2. Nagauri
3. Lohi

B

- a) Goats
- b) Camels
- c) Sheep

d) Bullocks

Q II A) Give Geographical Reasons (any 2) (4)

1. Wool Industry has developed in Rajasthan.
2. Rural settlement in the Peninsular part exhibit mixed type.
3. Forest area is decreasing in the middle Ganga Plain.

Q II B) Write Short Notes (Any Two) (4)

1. Physiography of the Gujarat Coast.
2. Wildlife in Himalayas.
3. Culture of Punjab and Haryana.

Q III A) With the help of the following data prepare a Simple Line Graph (2)

Years	per Capita Income (in Rupees)
2000 - 2001	18000
2001 - 2002	19000
2002 - 2003	20000
2003 - 2004	24000
2004 - 2005	27000

Q III B) Observe the map and answer the following questions (2)

1. Which landform is there on the northwestern boundary of the Central Highlands?
2. Which is the easternmost plateau in this region?
3. Which river separates Baghelkhand from Bundelkhand?
4. Which hill ranges lie to the south of the Vindhya Range?

Q III C) Mark the following in the outline map of India (2)

1. Chilka Lake
2. Western Himalayas
3. Mumbai Port
4. Maharashtra Plateau

Q IV Answer in Brief (any 2) (8)

1. What are the environmental problems of the Western Ghats and Western Coastal Regions.
2. Explain any three sub divisions of Deccan Plateau in details.
3. Explain the climate of Punjab and Haryana.

Q V Fill In The Blanks**(2)**

1. An economy is a combination of _____ activities.
2. Goods and Services are produced and supplied by _____ sector on the basis of "No Profit , No Loss".

Q VI Answer in one or two sentences (Any Three)**(6)**

1. What is an economy?
2. What is a private sector?
3. Which classes are the gainers during inflation?
4. What are the main objectives of PDS?
5. What is meant by food adulteration?

Q VII Answer in Brief (Any One)**(4)**

1. Explain the rights of the consumers.
2. Explain monetary measures to control inflation.

All The Best*Thakur Educational Trust's (Regd)*

THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE

II Preliminary Exam. 2017- 2018

Subject: History/ Political Science.

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40

Date: 22/11/2017

Time: 2hrs.

QI) Fill in the blanks in the given statements choosing the correct alternative from the brackets.**(3)**

- 1) _____ became the first colonizer in the African continent at the end of 19th Century.(England, France, Belgium)
- 2) Krantisinha Nana Patil established a parallel government in _____ district. (Solapur, Sangli, Satara)
- 3) The Constitution set up in Germany after the First World War was known as _____.(Genro, Nazism, Weimer)

B) Match the columns**(3)****A****B**

- | | |
|-------------------|----------------------------|
| 1) Eisenhower | a) Communist Manifesto |
| 2) Woodrow Wilson | b) India |
| 3) Karl Marx | c) Policy of self-decision |
| | d) America. |

QII) Answer the following in 25 to 30 words (any-2) (4)

- 1) Due to globalization, which fields are undergoing changes.
- 2) Which programme was planned by the revolutionaries for the achievement of independence?
- 3) Write the background of Benito Mussolini before he entered into politics.

QIII) Give reasons for the following in 25-30 words (any -2) (4)

- 1) The other community people opposed the Tsar's rule.
- 2) The villages in India lost their self sufficiency.
- 3) England, France and Russia gave importance to the Balkan region.

QIV) Answer in 30-40 words (any-2) (6)

- 1) Explain the objectives of League of Nations.
- 2) Explain the movement of 'Division of Bengal'.
- 3) Why did Russia's economic condition decline?

QV) Answer the following in 60-80 words (any -2) (8)

- 1) What are the destructive effects of imperialism?
- 2) Write the uses of computer in various fields.
- 3) What was Kemal Pasha's development policy in Turkey?

QVI) Fill in the blanks choosing the suitable alternatives from the given

brackets: (3)

- 1) The party(or parties) winning the majority of seats in the elections is known as _____ party. (Ruling, Opposition, Independent, Free)
- 2) Citizens have to accept some restrictions on their personal liberty for _____ purposes.(equality, political, security, justice)
- 3) _____ is a country homogeneous in the case of language.(India, Switzerland, China, Sri Lanka)

QVII) Answer the following questions in one sentences each (any3) (3)

- 1) How many types of political parties are there in India? What are they?
- 2) For what reasons is the Government required to take extra caution about the security of people?
- 3) State the meaning of tolerance.
- 4) What is diversity?

5) Name the different features of democracy.

**QVIII) State giving reasons if the following statements are True or False (any-2)
(4)**

- 1) Tolerance is a necessary component of democracy.
- 2) It is considered important to have an opposition party in democracy.
- 3 Economic inequality is not the challenge before democracy. (2)

QIX) Answer the following questions in 25 to 30 words (any-1)

- 1) State the challenges of inequality and explain any one in detail.
- 2) Write the functions of political party.

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<i>Thakur Educational Trust's (Regd.)</i>		
THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE		
II Preliminary Exam 2017 - 2018		
Subject: Science & Technology I		
Name: _____ STD: X Div: _____ Roll No: _____		
Marks: 40	Date: 20/11/2017	Time:2hrs

**Q1) A) a) Fill in the blanks
(3)**

- 1) The value of Frequency of AC in India is _____.
- 2) An optical device used by watch repairs is _____.
- 3) The Chemical reactions in which heat is liberated are called _____ reactions.

**b) Match the column.
(2)**

- | A | B |
|---------------|------------------------|
| i) eosin | 1) Losing hydrogen. |
| ii) Oxidation | 2)Synthetic indicator. |
| | 3) losing oxygen. |
| | 4)natural indicator |

**QIB) Choose the correct alternative and rewrite the statements.
(5)**

1) What will be the equivalent resistance of two resistances of 60Ω and 40Ω connected in parallel?

- a) 100Ω b) 50Ω c) 24Ω d) 2400Ω

2) $1\mu\text{V} = \text{_____ V}$

- a) 10^3 b) 10^6 c) 10^{-6} d) 10^{-3} .

3) What is the unit of refractive index?

- a) metre b) metre/sec c) Dioptre d) none of these.

4) H_2 ions do not exist independently which ions are formed when they combine with water?

- a) HCO_3^- b) OH^- c) NH_4^+ d) H_3O^+ .

5) A substance which is bitter to taste is _____?

- a) an acid b) an alkali c) a salt d) none of these.

Q2) Answer the following (any 5)

(10)

- 1) Elements in the same group show same valency.
- 2) The melting point of filament of a bulb is very high..
- 3) Alloys like alnico and nepermag are used in industry.
- 4) Concave mirrors are used in Solar devices.
- 5) Stars twinkle at night.
- 6) Write a note on Eutrophication..

Q3) Answer the following (any 5)

(15)

- 1) State and prove Joule's law?.
- 2) Give the Merits of Modern periodic table over Mendeleev's Periodic table .
- 3) Explain the construction and working of D.C. generator.
- 4) How do metal carbonates react with acids? Give two uses of sodium bicarbonate.
- 5) Explain the term rancidity.
- 6) Give the impact of noise pollution on the Human body?

Q4) Attempt the following (any 1)

(5)

- 1) Look at the Figure and answer the questions:
 - i) Name the phenomenon observed in the given diagram.
 - ii) Mention the colours having minimum and maximum refractive index.
 - iii) Which colour travels with maximum speed?
 - iv) Which colour travels with minimum speed?
 - v) Name a natural phenomenon which shows this.

- 2) In a Std X class out of 40 students , 10 students use spectacles, 2 students have positive power and 8 students have negative power of lenses in their spectacles.

Answer the following questions:

- 1) What does the negative power indicate?
- 2) What does the positive power indicate?
- 3) Generally , Which type of spectacles do most of the students use?
- 4) What defect of eyesight do most of the students suffer from?
- 5) Give two possible reasons for the above defect.

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Thakur Educational Trust's (Regd)

THAKUR VIDYA MANDIR HIGH SCHOOL & JR.COLLEGE

I Preliminary Exam 2017 - 2018

Subject: Science & Technology II.

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40

Date: 18/9/2017

Time:2hrs

Q1) A) a) Fill in the blanks:

(2)

1) _____ is the largest gland in the body.

2) The loss of water from the plants is known as.

B) Match the following:

(3)

Column A	Column B
a) Cu and Zn	i) Bronze.
b) Cu and Sn	ii) Zinc amalgam.
c) Hg and Zn	iii) Brass.
	iv) Stainless steel.

Q1)B) Choose the correct alternative & rewrite the statement.

(5)

1) Where does the cellular respiration take place?

a) Chlorophyll b) Mitochondria c) Lysosomes d) Ribosomes.

2) Fermentation is a type of _____.

a) endothermic reaction b) aerobic respiration c) anaerobic respiration d) none of these.

3) During aerobic respiration _____ molecules of ATP are released.

a) 2 b) 28 c) 38 d) 22.

4) _____ is amphoteric in nature.

a) Na_2O b) CaO c) MgO d) Al_2O_3

5) During digestion carbohydrates are broken down into _____.

a) glycol b) amino acids c) glucose d) fatty acids.

Q2) Answer the following (any 5)

(10)

1) Give Reason : Translocation is needed in all higher plants.

2) What is the three 'R' mantras? Write its significance.

3) Distinguish between Voluntary and Involuntary movements.

4) State any two functions of MPCB for prevention of water pollution.

5) Breathing rate increases during vigorous exercise.

6) Roots of plants grow away from light.

Q3) Answer the following (any 5)

(15)

1) Explain the Chemical control in animals.

2) Explain tropism and tropic movements.

3) Explain the structure of Nephron.

4) Give the properties of ionic compound.

5) What would be the consequences of deficiency of Haemoglobin in the human body?

6) Explain the following terms:

i) Thermic Reaction ii) Electroplating iii) Galvanizing

Q4) Attempt the following (any 1)

(5)

1) Explain the Process of extraction of Aluminium.

2) Explain the Nutrition in Human beings.

II Preliminary Exam 2017 - 2018

Subject: Science & Technology II.

Name: _____ STD: X Div: _____ Roll No: _____

Marks: 40

Date: 25/11/2017

Time: 2hrs

Q1) A) a) Find the odd one out:

(2)

- 1) Wind, Coal, Oil, Petrol.
- 2) Ethane, Ethene, Ethyne, Benzene

B) Match the following:

(3)

Column A	Column B
a) Auxin	i) Growth of stem
b) Gibberellins	ii) Promotes Cell division
c) Cytokinins	iii) Bending of Shoot towards light
	iv) Balsam

Q1) B) Choose the correct alternative & rewrite the statement.

(5)

- 1) Excess of carbohydrates stored in the plant body is in the form of _____.
a) Salt b) nitrogenous substances c) starch d) lipid.
- 2) Fermentation is a type of _____.
a) endothermic reaction b) aerobic respiration c) anaerobic respiration d) none of these.
- 3) During aerobic respiration _____ molecules of ATP are released.
a) 2 b) 28 c) 38 d) 22.
- 4) _____ is a unicellular fungus that shows budding.
a) Mucor b) Yeast c) Amoeba d) None of these.
- 5) During digestion proteins are broken down into _____.
a) glycol b) amino acids c) glucose d) fatty acids.

Q2) Answer the following (any 5)

(10)

- 1) How is Sex determined in human beings.
- 2) Ionic compounds have high melting and boiling points
- 3) Distinguish between Detergents and Soaps.
- 4) State Work of WBCSD..
- 5) Explain Pollination.

6) Phenotypic and genotypic ratios are different.

Q3) Answer the following (any 5)
(15)

- 1) What are vestigial organs? Give two examples each in human beings and plants.
- 2) What are the three 'R' mantras? Write its significance.
- 3) Explain Respiratory system in Human beings.
- 4) Draw a neat labeled diagram for a female reproductive system and explain any 2 parts of it.

5) Complete the following table:

Type of Compound	Functional Group	Name	Formula
1) Carboxylic acid	-----	Acetic acid	-----
2) Aldehyde	-----	Acetaldehyde	-----
3) Ketone	-----	Acetone	-----

6) Explain the following terms:

- i) Tinning ii) Electroplating iii) Alloying

Q4) Attempt the following (any 1)
(5)

1) Read the following paragraph answer the question:
The CNS is a delicate structure composed of 'X' and 'Y'. 'X' is protected by 'M' and 'Y' by 'N'. Protective membranes are present which are filled with a fluid.

i) Name X, Y, M and N.

ii) What are the protective membranes called?

iii) Which fluid is present in these areas?

iv) Give one function of the fluid.

2) a) Metals 'A' and 'B' react vigorously with cold water. Identify the metals.

(b) Gas 'C' is a colourless gas which is produced by the reaction of active metals with dilute hydrochloric acid. What is 'C'? Write one such reaction.

(c) Which oxide of metal is Amphoteric in nature? Why?

****ALL THE BEST****

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II Preliminary Exmination 2017-18

कक्षा -दशमी

दिनाङ्कः- 18 /11/2017

गुणा : - 80

विषयः- संस्कृतम्

अवधिः - 2.45 होरा

नाम - _____

विभागः _____

क्रमसंख्या _____

प्रथमः विभागः - गद्यम्

प्रश्न 1. अ संवादांशं पठित्वा निर्दिष्टाः कृतीः कुरुत ।

अ.1 अवबोधनम् । (केऽपि 2 कृती कुरुत)

2

i. एकपदेन उत्तरं लिखत ।

नाट्ये कति रसाः विद्यन्ते ?

ii. वाक्यं पुनर्लिखित्वा सत्यं वा असत्यम् इति लिखत ।

उत्साहः वीररसस्य प्रधानगुणः ।

iii. उचितं कारणं चित्वा वाक्यं पुनर्लिखत ।

अदितिः आचार्यायाः दर्शनार्थम् आगता । यतः

1 सा राज्यनाटयस्पर्धायाः कृते आचार्या निमन्त्रयितुम् ऐच्छत् ।

2 सा तस्याः मनसि उत्पन्नां नाटयविषयिणी जिज्ञासां पूरयितुम् ऐच्छत् ।

आचार्या- भरतमुनिः कथयति यथा महानसे षड्रसैर्युक्तं समुचितपाकक्रियाभिः सिद्धं भोजनमास्वाद्यं भवति , नाट्ये तथैव विविधभावैर्युक्ता अभिनयसहिता कलाकृतिः रसिकजनानां कृते आस्वादनीया मनोहारिणी च भवति । तस्मादेते विशेषभावाः नाट्यरसाः च व्याख्याताः ।

अदितिः- कति रसाः ? कानि च तेषां नामानि ?

आचार्या - शृङ्गारहास्यरौद्रकरुणवीराद्भुतवीभत्सभयानकाः तथैव शान्त इति नवरसाः ख्याताः । अस्मिन् शास्त्रे सर्वरसानां देवताः वर्णाश्च वर्णिताः ।

अदितिः- आचार्ये अधुना विशेषेण वीररसविषये कथयतु भवती ।

आचार्या- आम् । उत्साहः वीररसस्य प्रधानगुणः । स इतरानपि उत्साहयति । अन्यः गुणः अध्यवसायः नाम दृढनिश्चयः दृढयत्नश्च । अपरः गुणः निश्चला बुद्धिः । स्थैर्यधैर्यवीर्यगर्वोत्साहपराक्रमादि प्रभावात्मकैरभिनयैः रसनिष्पत्तिः कर्तव्या । एष रसः रसिकान् प्रेरयति ।

अदितिः - आचार्ये एतत्सर्वं मनसि अवधार्यैवाभिनयं करिष्ये । अनुगृहीताहं खलु ।

आचार्या - विजयिनी विनयिनी भव ।

अ.2. शब्दज्ञानम् । (काः अपि 3 कृतीः कुरुत)

3

i. चतुर्थं पदं लिखत ।

a. तथा + एव = तथैव :: + एव = यथैव ।

b. कः + चन = कश्चन :: + च = वर्णाश्च ।

ii. समूहेतरं पदं चिनुत ।

a. शृङ्गारः अद्भुतः मधुरः शान्तः b. महानसः पाकशाला कार्यशाला पाकगृहम् ।

iii. नाट्यांशतः पर्यायशब्दौ चित्वा लिखत ।

1 अध्यवसायः = । 2 आचार्या = ।

iv. नाट्यांशे आगते द्वितीयान्तपदे । ।

*****ALL THE BEST*****

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II Preliminary Exmination 2016-17

कक्षा -दशमी

दिनाङ्कः- 17/11/2017

गुणा : - 80

विषयः- संस्कृतम्

अवधिः - 2.45 होरा

नाम - _____

विभागः _____

क्रमसंख्या _____

प्रथमः विभागः - गद्यम्

प्रश्न 1. संवादांशं पठित्वा निर्दिष्टाः कृतीः कुरुत ।

अ.1 अवबोधनम् । (केऽपि 2 कृती कुरुत)

2

i. पूर्णवाक्येन उत्तरं लिखत ।

बुधाः भरतमुनेः नाटयशास्त्रविषये किं मन्यन्ते ?

ii. वाक्यं पुनर्लिखित्वा सत्यम् वा असत्यम् इति लिखत ।

रसहीनं भोजनं सर्वेभ्यः रोचते ।

iii. उचितं कारणं चित्वा वाक्यं पुनर्लिखत ।

अदितिः वीररस विषये एव पृच्छति यतः

1 वीररस प्रधानं तत् नाटकम् ।

2 वीररस विषये तस्याः जिज्ञासाः ।

श्रेया- तथापि एतेषु सौरं अपरिमितम् अक्षयं, प्रदूषणमुक्तं च । कोराडी इत्यत्र औष्णिक्याः उर्जायाः प्रकल्पः तथा द्वाभ्वेतारापुरस्थौ द्वौ अणुविद्युत् प्रकल्पौ प्रसिद्धौ । कोयना जल विद्युत्प्रकल्पस्तु अर्वाचीनमहाराष्ट्रस्य भाग्यरेषैव ।

पार्थः - कुत्रचित् पर्वतेषु पवनचक्रिका स्थाप्यन्ते । मरुतःसहाय्येन विद्युन्निर्मियते । अपि सैव पवनोर्जा ?

श्रेया - सत्यम् , सा पवनोर्जा प्रदूषणमुक्ता , उपजीविकासाधिका च ।

अथर्वः - एवमपारम्परिकान् उपायान् स्वीकृत्य पारम्परिकस्रोतसां परिरक्षणं च कर्तव्यं सर्वैः । येन धनसञ्चयो भवेत् , तेनैव राष्ट्रोन्नतिः स्यात् ।

अ.2. शब्दज्ञानम् । (काः अपि 3 कृतीः कुरुत)

3

i. सन्धि विच्छेदं कुरुत ।

वीररसप्रधानमेतन्नाटकमिति = ++

ii. पर्यायशब्दौ लिखत

a प्राज्ञः =..... । b पुस्तकम् =..... ।

iii. समूहेतरं पदं चिनुत ।

करणीयः, पठनीयः , आस्वादनीयः , अभिनयः ।

iv. विशेषणं लिखत 1 अदितिः..... । 2 वेदः

अ.3 स्वमतप्रकटनम् । अभिव्यक्तिः

2

नाटयभोजनरसयोः मध्ये किं वरम् ।

भवतां मतेन तत् 30/40 शब्दपरिमितां माध्यमभाषया लिखत ।

प्रश्न ब 1. गद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत ।

ब.1. अवबोधनम् । (केऽपि 2 कृती कुरुत)

2

i. पूर्णवाक्येन उत्तरं लिखत ।

नरेन्द्रस्य हस्तात् मूर्तिः कदा पतिता ?

ii. वाक्यं पुनर्लिखित्वा सत्यं वा असत्यमिति लिखत ।

नरेन्द्रस्य माता मूर्तिपूजाविरोधिनी आसीत् ।

