



B.KUMAR'S ACADEMY

Subject : Science -I

QUESTION PAPER - 01

Total Marks : 30

Class : X

Chapter 1 to 3

Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

1) In a double displacement reaction.

- a) ions remain state. b) ions get liberated
c) ions are exchanged d) ions are not created

2) The value of the universal gravitational constant (G) in the SI unit is

- a) $6.673 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$
b) $6.673 \times 10^{11} \text{ Nm}^2/\text{kg}^2$
c) $6.637 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$
d) None of these

3) Manganese is a

- a) metal b) Nonmetal
c) Transition metal d) None of these

Q. 1 :B) Solve the following question (3)

- 1) Find the odd one out.
Lithium (Li), Sodium (Na), Nitrogen (N),
Magnesium (Mg)

- 2) Write True or False.
If edible oil is left aside for a long time it will
get rancid.

- 3) What is Dobereiner's Triad ?

Q. 2 :A) Give reason (any two) (4)

- 1) Any object on earth falls vertically
downward and not at an angle to the vertical
nor fly off in a horizontal direction
2) When the gas formed on heating limestone
is passed through freshly prepared lime
water the lime water turns milky.

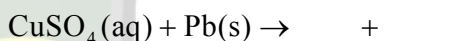
- 3) Atomic radius goes on decreasing while
going from left to right in a period.

Q.2 B) Solve the following question (Any three) (6)

- 1) If mass of a planet is eight times the mass of
the earth and its radius is twice the radius of
the earth. What will be the escape velocity
for that planet ? (Given escape velocity of
earth =

11.2 km /s)

- 2) Complete the following chemical reaction



Name the type of chemical reaction .

- 3) Define periods and groups of modern
periodic table
4) An object takes 5 sec to reach the ground
from a height of 5 m on a planet what is the
value of g on the planet ?

Q.3 Solve the following question (Any three) (9)

- 1) An element has its electronic configuration
as 2, 8, 1. Now Answer the following
questions.
a) What is the atomic number of this
element?
b) What is the group of this element?
c) To which period does this element
belong?
2) Write the Kepler's law
3) Balance the given chemical reactions
$$\text{NaOH} + \text{H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$$

- 4) An element x has atomic number 13
- Write its electronic configuration ?
 - State the group to which x belongs ?
 - Is x a metal or non metal ?

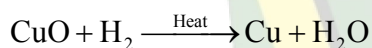
Q.4 Solve the following question (Any one) (5)

- 1) Observe the given chart and answer the questions given below**

Element	A	B	C	D
Electronic Configuration	2,1	2,8	2,8,1	2,8,8

- Which elements are in the same row ?
- Which elements have the same column ?
- Which elements are in the 18th column.
- Which element is more reactive among A and C ?
- Which of the following elements A or B will form compounds ?

- 2) Consider the chemical equation given below and answer the question that follow**



- Name the substance which is getting oxidised?
- Name the oxidising agent.
- Name the substance which is getting reduced.
- Name the reducing agent.
- What type of a reaction does this equation represent ?



B.K. KUMAR'S ACADEMY

Subject : Science -I

QUESTION PAPER - 02

Total Marks : 30

Class : X

Chapter 4 to 6

Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

- 1) If a ray of light passes from a denser medium to rarer medium in a straight line the angle of incident must be

- a) 0° b) 30°
c) 60° d) 90°

- 2) The device used for generating electric current is called as _____

- a) generator b) galvanometer
c) ammeter d) motor

- 3) To study energy exchange between hot & cold objects the system of both objects is isolated from the environment by keeping them inside _____

- a) a heat resistant box
b) a rectangular box
c) Hopes apparatus
d) None of these

B) Solve the following question (3)

- 1) Match the pair

A	B
Substance	Refractive index
Air	a) 1.33
	b) 1.46
	c) 1.0003

- 2) Find the odd one out

Heater, Toaster, Electric bulb, Electric iron

- 3) What is the SI unit of specific heat capacity?

Q.2A) Give reason (Any two) (4)

- 1) Tungsten metal is used to make a solenoid type coil in an electric bulb.
- 2) In cold regions in winter the rocks crack due to anomalous expansion of water.
- 3) A pencil appears to be broken near the surface of water

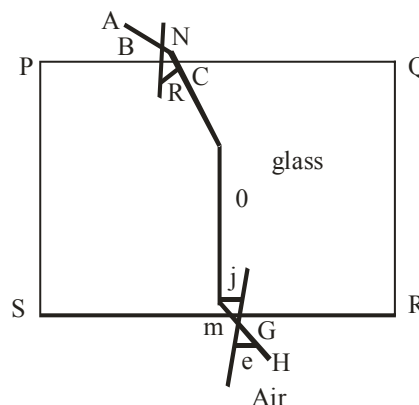
Q.2B) Solve the following question (Any 3) 6

- 1) How do we feel about air in each of the following conditions ?
 - a) Relative humidity is more than 60%
 - b) Relative humidity is less than 60%
- 2) State the laws of refraction of light.
- 3) Equal heat is given to two objects A and B mass 1g. The temperature of A increases by 3°C and B by 5°C . Which object has more specific heat ? and by what factor ?
- 4) State Fleming's right hand rule.

Q.3) Solve the following question

(any three) (9)

- 1) Observe the figure and name the ray AB, ray CD, ray GH



- 2) Iron, Copper and Leads are taken and they are heated and drop into wax
- Which element has maximum specific heat capacity?
 - Which element has minimum specific heat capacity?
 - Define specific heat of object.
- 3) What makes the star appear to be higher in the sky as compared to their actual position?
- 4) An electric iron 1100 is operated for 2 hrs daily. What will be the electrical consumption expenses for that in the month of April? (The electric Company charges Rs 5 per unit of energy)

Q.4 Answer the following question (any one) (5)

- Draw the ray diagram of glass slab having medium A and B for the velocity of light ray V_A and V_B respectively and define snell's law
 - If $V_B = 1.5 v_A$ Then which medium is denser?
 - What is the refractive index of A with respect to B?
 - What is the refractive index of B with respect to A?
- 2) Explain the magnetic field created around a straight current carrying conductor with the help of diagram.

B.KUMAR'S ACADEMY



B.K. KUMAR'S ACADEMY

Subject : Science -I

QUESTION PAPER - 03

Total Marks : 30

Class : X

Chapter 7 to 10

Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

1) The power & convex lens of focal length 20 cm is ____

- a) + 5.0 D b) 0.20 D
c) -5. 0 D d) 0.5 D

2) Good conductor of electricity is ____

- a) Bromine b) Iodine
c) Graphite d) Sulphur

3) The height of the medium earth orbit above the surface of the earth is ____

- a) 1500 km b) 250 km
c) 45000 km d) 25000 km

B) Solve the following question (3)

- 1) Write the name of small satellites made by a group of students from COEP sent to the space through ISRO in 2016
- 2) Write the IUPAC name of ethylene
- 3) Complete the correction

farsightedness : convex lens : : presbyopia : ____

Q.2A) Give reason (Any two) (4)

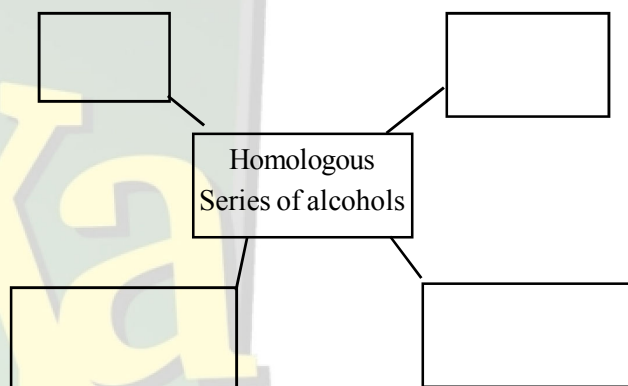
- 1) Sodium is always kept in Kerosene.
- 2) Convex lens is a converging lens.
- 3) Element carbon forms compounds mainly by covalent bonding.

Q.2B) Solve the following question (Any three) (6)

- 1) Complete the following table.

Sr No.	Types of Satellite	The name of Indian Satellite and launcher
1)	Navigational Satellite	Satellite : _____ Launcher : _____
2)	Earth observational Satellite	Satellite : _____ Launcher : _____

2) Write names of first four homologous series of alcohols



3) What are amphoteric oxides ? Give two examples of amphoteric oxides.

4) An object is placed at a distance of 10 cm from a convex lens of focal length 12cm. Find the position and nature of the image.

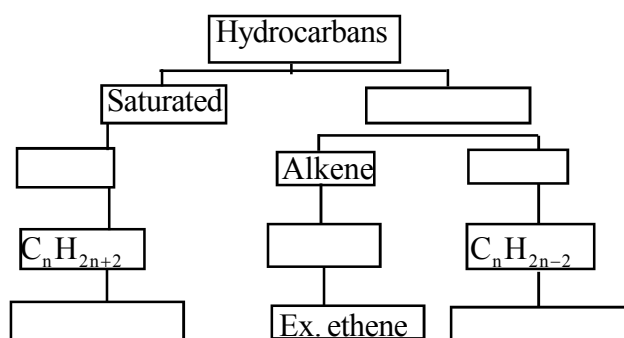
Q.3 Solve the following question (Any three) (9)

1) Read the following sentence and answer the questions.

"NaCl is an ionic compound "

- a) Why is NaCl an ionic compound ?
- b) State any two properties of ionic compounds.

2) Complete the following flow chart.



3) State the importance of space mission.

4) Aniket from std. x uses spectacles . The power of lenses in his spectacles is -0.5 D. Answer the following questions.

- State the type of lenses used in his spectacles.
- Name the defect of vision Aniket is suffering from.
- Find the focal length of the lenses used on his spectacles.

Q.4 Solve the following question (Any one) (5)

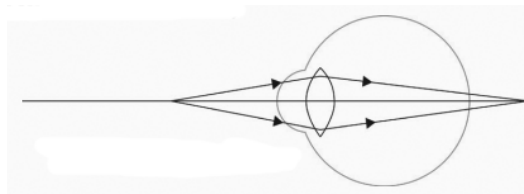
1) i) Write the IUPAC names of the following structural formulae

- $\text{CH}_3 - \text{CHOH} - \text{CH}_3$
- $\text{CH}_3 - \text{CO} - \text{CH}_2 - \text{CH}_3$
- $\text{CH} - \text{CH}_2 - \text{COOH}$

ii) Write structural formula for the following IUPAC names

- Pent -2- one
- 2 chlorobutane

2) Given below is a diagram showing a defect of human eye. Study it and answer the following questions.



- Name the defect shown in the figure.
- Give reason for this defect of eye in human beings.
- Name the type of lens used to correct the eye defect.
- Draw the diagram of correction of farsightedness.

B.KUMAR'S ACADEMY



B.K.KUMAR'S ACADEMY

Subject : Science -II

QUESTION PAPER - 01

Total Marks : 30

Class : X

Chapter 1 to 3

Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

1) Vestigial organ _____ present in human body is proof of evolution.

- a) Human hand b) Appendix
c) Ear muscles d) None of these

2) Type of sexual reproduction is _____

- a) fragmentation b) Regeneration
c) Gamete formation d) budding

3) After complete oxidation of Glucose molecule _____ number of ATP molecules are formed

- a) 38 b) 36
c) 32 d) None of these

B) Solve the following question (3)

1) Write the corelation

Skin : Keratin : : Blood : _____

2) State whether True or false.

The chromosome number in germ cells producing the gametes are diploid.

3) Which type of cell division takes place in somatic and stem cells ?

Q.2A) Give reason (Any two) (4)

- 1) Oxygen is necessary for complete oxidation of glucose.
2) Duck billed platypus shows relationship with mammals.
3) Fertilization in plants is called as double fertilization.

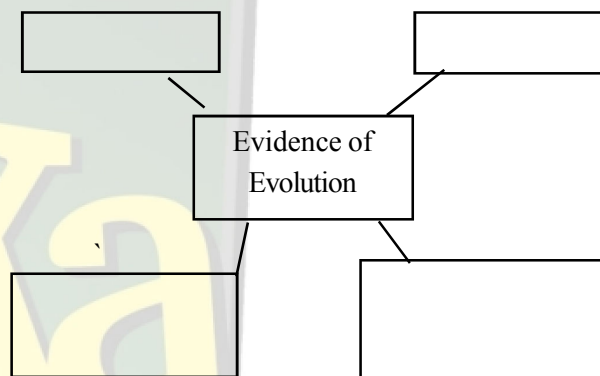
Q.2 B) Solve the following questions (any three) 6

1) What is pollination ? Explain the different type of pollination.

2) What is transcription ?

3) Sketch the labeled diagram Human female reproductive system.

4) Complete the following chart.



Q.3: Solve the following question (any three) (9)

1) What are objections raised against Darwins theory ?

2) Write types of asexual reproduction in unicellular organism.Explain any one.

3)Write the difference between mitosis and meiosis

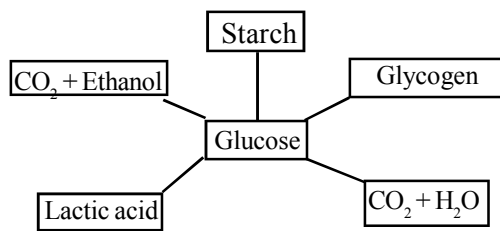
4) Explain the mechanism of hereditary changes

Q.4 Write answer of following question.

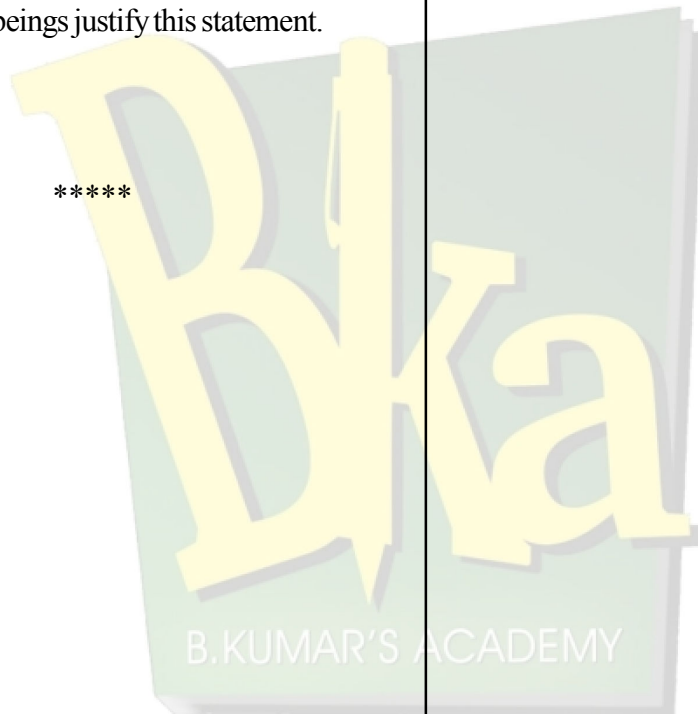
(any one)

5

1) Given below are the end products of different reactions involving glucose. Write the appropriate end product in front of the follows



- 1) Anaerobic reaction - -----
- 2) Reaction in human muscles - -----
- 3) Aerobic respiration - -----
- 4) Reaction in plant cell - -----
- 5) Reaction in liver - -----
- 2) Modern techniques like surrogate mother, sperm bank and IVF technique will help the human beings justify this statement.





B.K. KUMAR'S ACADEMY

Subject : Science -II

QUESTION PAPER - 02

Total Marks : 30

Class : X

Chapter 4 to 6

Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

1) The apex consumer is.

- a) Eagle b) Frog
c) Snake d) Grasshopper

2) Animal with bilateral symmetry in ____

- a) Starfish b) Human
c) Paramoecium d) Amoeba

3) The Hydroelectric capacity of koyna dam is ____

- a) 2400 MW b) 1960 MW
c) 1900 MW d) 1961 MW

B) Solve the following question (3)

1) To which class does bat belong ?

2) Match the pair

	A	B
1)	Forest conservation Act	a) 1986 b) 1980 c) 1970

3) What is the full form of UNEP ?

Q.2A) Give reason (Any two) (4)

- 1) It is absolutely necessary to control the fission reaction in nuclear power plants.
- 2) Earth worm is said to be a farmers friend.
- 3) It is important to do the environmental management ?

Q.2 B) Solve the following question (any three)(6)

1) Write short note on - Environmental conservation.

2) Write any two points of difference between flat worms and round worms.

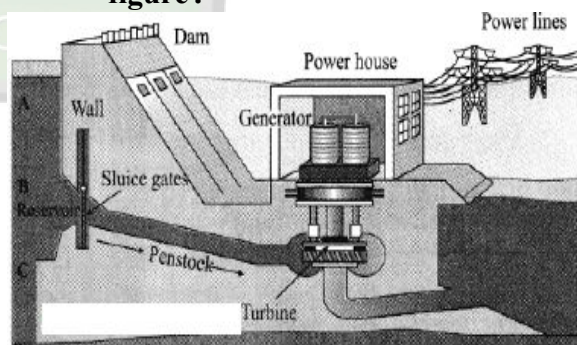
3) Complete the following table taking into account the relation between the enlries in three columns.

I	II	III
----- uranium water reservoir -----	Thermal energy ----- Potential energy Kinetic energy	Thermal plant Nuclear power plant ----- Wind electricity plant

4) To which phylum does cockroach belong ? Justify your answer with scientific reasons.

Q.3 Solve the following question (any 3) (9)

1) Answer the following question from figure .



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 start at point A ?
- iii) What will be the effect on electricity generation if the channel taking water to turbine starts at point C ?
- 2) Cockroach, frog, sparrow, starfish from these animals starfish can regenerate its broken body part
- 3) Write the factors affecting the environment.
- 4) What is meant by green energy ? Which energy source can be called as green energy sources and why ? Give examples .

Q.4 Solve the following question.

(any one)

(5)

- 1) Write the characters of each of the following animals with the help of classification chart.

Organism	Level of Organisation	Symmetry	Notochord
Rohu	Organ System		Present
Frog		Bilateral	
Elephant		Bilateral	Present
Jell fish	Tissue level		Absent

- 2) Attempts at various levels are performed for conserving environment. which role would you like to perform. Give two actions each.
 - i) Prevention ii) Control
 - iii) Production iv) Awareness
 - v) Conservation



B.KUMAR'S ACADEMY

Subject : Science -II
Class : X

QUESTION PAPER - 03 Chapter 7 to 10

Total Marks : 30
Time : 1 Hour

Q. 1 :A) Choose the correct alternatives. (3)

1) _____ bacteria is used for industrial production of youhart.

- a) Strepto coccuss thermophillus
- b) clostridiun
- c) Spirulina
- d) Chlorella

2) Consumers are deceived by showing superior items on websites but actually selling items of either inferior quality or impaired ones .This is _____ type of activity.

- a) Cyber crime
- b) Addiction
- c) Mental Stress
- d) Website hack

3) Organ like _____ can be donated after death.

- a) Skin
- b) Heart
- c) Lungs
- d) Bones

B) Write the following question (3)

- 1) State True or false.
To take selfie on the road is an invilation.
- 2) Write correct correlation.
Insulin : Diabetes :: Interferon :-----
- 3) Find the odd one out
Earthquake, Flooding, Tsunami, War.

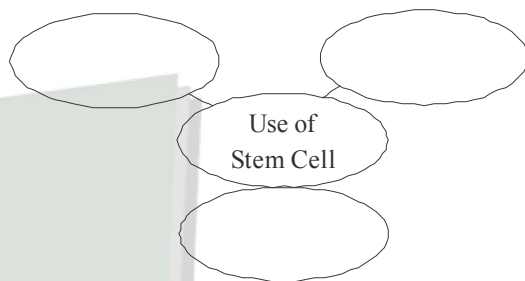
Q.2A) Give reason (Any two) (4)

- 1) Microbial enzymes are used instead of chemical catalyst in chemical industry
- 2) Nowadays school childern have to deal with mental stress.
- 3) Recently made vaccines are safer.

Q.2 B) Solve the following question (any three)(6)

1) Write the correct answer in blank circles.

Ans:



- 2) Write down any two objectives of disaster management.
- 3) What are the benefits of mixing ethanol with petrol and diesel?
- 4) Observe the picture and state what can be the output.



Q.3 Solve the following question (any 3) (9)

- 1) What is the importance of stem cells in medical science?
- 2) i) Define Disaster.
ii)Mention the long term effects of disaster of society.
iii)What is a catastropic disasters ?give an example.

- 3) i) Which substance is used to produce cheese?
ii) Which enzymes were used earlier for cheese production?
iii) An enzyme obtained from fungi to produce vegetarian cheese.
- 4) How would we rescue the citizens whose clothes had caught fire?

Q.4 Write the following question. (any 1) (5)

- 1) What will you do.
- i) You are spending more time in internet mobile games, phone etc.
- ii) Child of your neighbor is addicted to tobacco., Chewing.
- iii) Your sister has become incommunicative she prefers to remain alone.
- iv) You have to use free space around your home for good purpose.
- v) Your brother studying in XII has developed the stress.
- 2) Explain biofuel production with the help of diagram.

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