

Section B

Write the answer of the following questions. (2 marks each)(Any 9)

[18]

25. Explain combination reaction with example.
26. What are amphoteric oxides ? Give two examples of amphoteric oxides.
27. Draw diagram of stomata and explain them.
28. Draw a chart of break down of Glucose molecule in presence and absence of oxygen.
29. What is fission ? Explain its types by drawing figures.
30. What is vegetative propagation ? Explain its advantages.
31. Why is the colour of the clear sky blue ?
32. State the advantages and disadvantages of parallel combination of resistors.
33. 100 J of heat is produced each second in a $4\ \Omega$ resistance. Find the potential difference across the resistor.
34. What is an electromagnet ?
35. Explain the utility of fuse in domestic electric circuit.
36. Give components of ecosystem.
37. Mention the methods of disposing waste.

Section C

Write the answer of the following questions. (3 marks each)(Any 6)

[18]

38. Explain electrolysis of water by an experiment.
39. What are Ionic compounds or electrovalent compounds ? explain its properties.
40. Explain what is roasting and calcinations ? Explain with example.
41. Explain : Reflex Arc with the help of a diagram.
42. Draw a diagram of longitudinal section of flower and give explanation.
43. Male reproductive system – Give explanation in detail by drawing a diagram.
44. Explain refraction of light through a rectangular glass slab.
45. (i) Explain by drawing ray diagram of position and type of image formed by convex lens when an object is placed beyond $2F$.
(ii) Draw ray diagram of position and type of image formed by convex lens when an object is placed on the centre of curvature $2F$.
46. An electric bulb and a refrigerator rated 100 W and 400 W respectively operate 10 hour/day. What is the cost of the energy to operate both of them for 10 days at Rs. 8.00 per KWh ?

Section D

Write the answer of the following questions. (4 marks each) (Any 5)

[20]

47. Explain chlor alkali method for production of sodium hydroxide and give usefulness of products.

48. (i) Name the chemical compound commonly used by your mother in the kitchen for making tasty crispy pakoras or cake. State its chemical formula and write its chemical equation of its production.
(ii) Mention preparation and uses of washing soda.
49. (i) Explain versatile nature of carbon.
(ii) What are hydrocarbon compounds ? Explain giving examples.
50. Explain Human digestive system
51. Draw a human eye and explain the function of each part of it.
52. (i) Explain Fleming's left-hand rule with diagram.
(ii) Write the Right – hand Thumb Rule with diagram.
53. (i) What is meant by food chain ?
(ii) What is meant by food webs ? Explain with the help of a suitable diagram.
54. What is excretion ? Draw human excretory system and describe its structure.

SINCE : 1984



Section A

Do as directed (Que. 1 to 24) (each carries 1 mark)

[24]

Choose the correct alternative and write the answer :

- The pH of the gastric juices released during digestion is
A. less than 7 B. more than 7 C. equal to 7 D. equal to 0
- What is the melting point of chloroform (CHCl_3) ?
A. 290 K B. 209 K C. 156 K D. 90 K
- Three chambered heart is found in which group of animals ?
A. Pisces B. Amphibians
C. Aves D. Reptiles
- Choose the correct option. The magnetic field inside a long, straight current carrying solenoid
A. is zero B. decreases as we move towards its end
C. increases as we move towards its end D. is the same at all points.
- Lens of power + 2.0 D has focal length _____
A. 5 m B. + 0.5 m
C. 50 m D. - 0.5 m
- Far point of a normal eye is at
A. 1 cm B. 1 m C. Infinity D. 25 cm

Fill in the blanks by choosing the correct option from the bracket.

- Pentane has the molecular formula C_5H_{12} . It has covalent bonds. (17, 16, 12)
- _____ SI unit of magnetic field. (coulomb, ampere, Tesla)
- _____ enzyme digests incomplete protein in acidic medium. (Amylase, Lipase, Pepsin)
- In peas, a pure tall plant (TT) is crossed with a pure short plant (tt). The ratio of pure tall plants to pure short plants in F_2 generation will be : _____ (3 : 1, 1 : 3, 1 : 1)
- For any transparent medium, absolute refractive index is (1, less than-1, more than 1)
- The colour of copper (II) oxide is _____. (Green, black, red)

State whether the following statements are True or False :

- Magnesium reacts vigorously with cold water.
- New species may be formed. If DNA undergoes significant changes in germ cells or chromosome number changes in the gamete.
- While seeing far objects, focal length of eye lens increases.
- A stain of curry on a white cloth becomes reddish brown when soap is scrubbed on it.

Answer in short :

- Give examples of two plants showing response to touch.

18. In F_1 generation what does F_1 stand for?

19. Definitions of Near point

20. Give symbol of variable resistance.

Match the following :

	'A'		'B'
21.	Medullar Oblongata	(a)	Centre for Coordination of actions
22.	Spinal cord	(b)	Decision making
		(c)	Control of involuntary activities

	'A'		'B'
23.	Pepsin	(a)	Digests Nucleic acid
24.	Nuclease	(b)	Digests dipeptides
		(c)	Digests proteinu

Section B

Answer any 9 questions from Que. No. 25 to 37. (each carries 2 Marks)

[18]

25. Why do fire flies glow at night ?

26. Of the three metals X, Y and Z. X reacts with cold water, Y with hot water and Z with steam only. Identify X, Y and Z and also arrange them in order of increasing reactivity.

27. Why does a fish die if we bring it out from water ?

28. What is the difference in fission between amoeba and Leishmania ?

29. Name the plant organs that function like the animal organs.

(1) Testes (2) Ovary (3) Ovule (4) Sperm cell.

30. Though planets are closer to us compared to stars, they do not twinkle. Why?

31. When a conductor is said to be (i) good conductor (ii) resistor (iii) insulator (or bad conductor) ?

32. When does an electric short circuit occur?

33. Mention the factors on which magnetic field of a current carrying long solenoid depends.

34. Explain the types of an ecosystem.

35. What are the things that we need to keep in mind when we create an aquarium ? The fish would need a free space for swimming it could be a large jar, water oxygen and food (which is available in the market)

36. Match the following columns.

	'A'		'B'
1)	Autotrophic Nutrition	(a)	Leeches
2)	Heterotrophic Nutrition	(b)	Paramecium
3)	Parasitic Nutrition	(c)	Deer
4)	Digestion in Vacuole	(d)	Green plants

37. Derive the equation of equivalent resistance of a parallel connection of resistors ?

Section C

Answer any 6 questions from Que. No. 38 to 46. (each carries 3 Marks)

[18]

38. Write the balanced chemical equation for the following reactions and identify the type of reaction in each case.
(a) In Thermite reaction, iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.
(b) Magnesium ribbon is burnt in an atmosphere of nitrogen gas to form solid magnesium nitride.
39. When chemical process is used for obtaining a metal from its oxide ?
40. What are the methods to prevent corrosion ?
41. Explain different plant hormones.
42. Explain: Process of Regeneration.
43. Explain how does the embryo gets nutrition in mother's body.
44. Give Four points of difference between concave mirror and convex mirror.
45. What is expressed by power of a lens ? Write a short note about power of a lens.
46. Which law gives relation between potential difference across a metallic wire and current through it ? Describe it in brief.

Section D

Answer any 5 questions from Que. No. 47 to 54. (each carries 4 Marks)

[20]

47. Explain the production and uses of bleaching powder.
48. What is universal indicator? Give its uses.
49. What are hydrocarbon compounds ? Explain its classification.
50. Explain the circulation path of blood in human heart (Figure is necessary)
51. Describe : Various food Chains.
52. (ii) Make a diagram to show how hyper metropia is corrected. The near point of a hypennetropic eye is 1 m. What is the power of the lens required to correct this defect? Assume that the near point of the normal eye is 25 em.
53. Explain the location, importance and degradation of ozone layer
54. Write a complete note on domestic electric circuit.

Section A

Do as directed (Que. 1 to 24) (each carries 1 mark)

[24]

Choose the correct alternative and write the answer :

- Which of the following substances will not give CO_2 on treatment with dilute acid?
 - Marble
 - Limestone
 - Baking soda
 - Lime
- Which of the following is the oxidizing agent?
 - Alkaline KMnO_4
 - Acidic $\text{K}_2\text{Cr}_2\text{O}_7$
 - Alkaline KOH
 - 'A' and 'B' both
- In the below organism in which group is food digested outside the body and then absorbed.
 - Mushrooms, Green plants, Amoeba
 - Yeast, Mushroom, Bread mould
 - Paramecium, Amoeba, Amar bell
 - Amar bell, Lice, Tape-worms
- $5\ \Omega$, $10\ \Omega$ and $15\ \Omega$ resistances are connected in parallel. Equivalent resistance of this combination would be
 - greater than $5\ \Omega$
 - less than $5\ \Omega$
 - greater than $30\ \Omega$
 - Equal to $10\ \Omega$
- When light rays emanating from a point – like source are made incident on _____, parallel light beam can be obtained.
 - concave mirror and convex lens.
 - convex mirror and concave lens
 - two plane mirrors placed at 90° angle
 - concave mirror and concave lens
- Because of active _____, focal length of eye lens gets changed.
 - Iris
 - Retina
 - Pupil
 - Ciliary muscles

Fill in the blanks by choosing the correct option from the bracket.

- _____ is the correct representation of electron dot structure nitrogen .
 ($\text{N}::\text{N}::\text{N}::\text{N}::\text{N}::\text{N}$)
- A positively-charged particle (alpha-particle) projected towards west is deflected towards north by a magnetic field. The direction of magnetic field is _____.
 (towards south, towards east, upward)
- The kidneys in human beings are a part of the system for _____.
 (Nutrition, Respiration, Excretion)
- Study the human evolution is called _____.
 (Archaeology, Anthropology, Chronobiology)

11. A thin coating of zinc is applied on the surface of iron. This method is called _____.
(to paint , galvanization , oxidation)

12. The first member of alkyne homologous series is _____. (ethyne, ethync, propyne)

State whether the following statements are True or False :

13. Ionic compound have low M.P. and B.P.

14. Reduction in weight of the organism due to starvation is genetically controlled.

15. Sunrise seems to have taken place two minutes later than actual sunrise.

16. Non-metallic oxides are acidic in nature.

Answer in short :

17. What is the main function of ABA (Absciscic acid) ?

18. What happens if DNA copying is not perfectly accurate?

19. Which reasons cause presbyopia ?

20. What constitutes electric current in a circuit ?

Match the following :

	'A'		'B'
21.	Cerebrum	(a)	Control of involunt activities
22.	Cerebellum	(b)	Desision making
		(c)	Maintaining body balance.

	'A'		'B'
23.	Nutritional pattern of consumers.	(a)	Heterotrophic
24.	Link of a food chian.	(b)	Trophic level
		(c)	Consumers

Section B

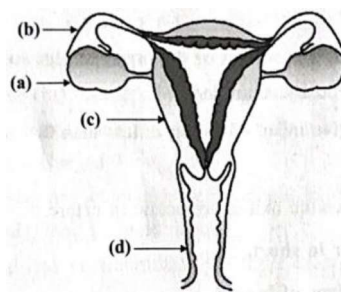
Answer any 9 questions from Que. No. 25 to 37. (each carries 2 Marks) [18]

25. Why should a magnesium ribbon be cleaned before burning in air ?

26. How could you use them to distinguish between samples of metals and non-metals?

27. Explain : platelets and lymph

28. In the figure given below name the following organs on the basis of its function given below



- (a) formation of egg cell (b) Place for fertilisation
(c) Place for implantation of embryo (d) Entrance of sperm

29. What are the advantages of sexual reproduction over asexual reproduction ?
30. What is called scattering of light ?
31. How does a cell or a battery cause current in the electric circuit ?
32. How much work is done in moving a charge of 2 C across two points having a potential difference 12 V ?
33. Explain: Electric fuse
34. What are trophic levels ? Give an example of a food chain and state the different trophic levels in it.
35. Answer in one word for each sentence.
- Sentence A : The physical and biological world where living organisms live
- Sentence B : The phase of food chain where energy is converted from one form to another.
- Sentence C: Physical factors like temperature, rainfall, wind, soil, etc of an ecosystem.
- Sentence D : Organisms. Which are directly or indirectly dependent on producers for their food.
36. Why is lipolysis of fat necessary ?
37. An electric iron of resistance 20 Ω takes a current of 5 A. Calculate the heat developed in 30 s.

Section C

Answer any 6 questions from Que. No. 38 to 46. (each carries 3 Marks) [18]

38. Explain :Corrosion and its effects
39. Give reasons. (a) Platinum, gold and silver are used to make jewellery. (b) Sodium, potassium and lithium are stored under oil. (c) Aluminium is a highly reactive metal, yet it is used to make utensils for cooking.
40. What is meant by electrovalent compound ? Explain it with the formation of MgCl_2
41. How are involuntary actions and reflex actions different from each other?
42. How does plant respond to stimulus ?
43. Explain the construction of cross section of flower.
44. Explain about principal focus and focal length of a convex lens.
45. Explain about (i) Centres of curvature (ii) Principal axis (iii) Optical Centre (iv) Radius of curvature (v) Aperture in case of convex or concave lens.
46. Short note on Electric fuse.

Section D

Answer any 5 questions from Que. No. 47 to 54. (each carries 4 Marks) [20]

47. Explain about (1) Importance of pH in the soil of garden, (2) pH in our Digestive System (3) pH Change as the cause of tooth decay.
48. Give the relation between concentration of H_3O^+ and pH .
49. Explain the given reactions with the examples.
(a) Hydrogenation reaction (b) Oxidation reaction (c) Substitution reaction
(d) Saponification reaction (e) Combustion reaction, Write the reactions.
50. Explain the circulation path of blood in human heart.
51. Give the full form of ATP and explain its importance.
52. A person needs a lens of power -5.5 dioptre for correcting his distant vision. For correcting his near vision he needs a lens of power + 1.5 dioptre. What is the focal length of the lens required for correcting (i) distant vision and (ii) near vision?
53. Explain in brief about Fleming's left hand rule.
54. Mention any four activities in daily life which are environment friendly.



Section A

Answer the following questions. (Que. 1 to 24)(each carries 1 mark) [24]

1. A solution reacts with crushed egg-shells to give a gas that turns lime water milky. The solution contains:
(a) NaCl (b) HCl (c) LiCl (d) KCl
2. An element reacts with oxygen to give a compound with a high melting point. This compound is also soluble in water. This element is likely to be –
(a) calcium (b) carbon (c) silicon (d) iron
3. The breakdown of pyruvate to give carbon dioxide, water and energy takes place in –
(a) cytoplasm (b) chloroplast (c) mitochondria (d) nucleus
4. Which of the following lenses would you prefer to use while reading small letters found in a dictionary?
(a) A convex lens of focal length 50 cm. (b) A concave lens of focal length 50 cm.
(c) A convex lens of focal length 5 cm. (d) A concave lens of focal length 5 cm
5. Which one of the following materials cannot be used to make a lens ? ____
(a) clay (b) water (c) Glass (d) Plastic
6. The splitting of white light into different colours on passing through a prism is called
(a) reflection (b) refraction (c) dispersion (d) deviation
7. Potassium nitrate has pH value equal to
8. Metal oxides and dissolve in water to form alkalis
9. A group of organic compounds having similar structures and similar chemical properties in which the successive compounds differ by CH_2 group is called a
10. The blood has cells which plug the leakage in the vessels by helping to clot the blood at the point of injury.
11. Leaf fall and seed dormancy is controlled by
12. Focal length of lens is +20 cm. its power is

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- (a) Both 'A' and 'R' are true and 'R' is correct explanation of the Assertion.
 - (b) Both 'A' and 'R' are true but 'R' is not correct explanation of the Assertion.
 - (c) 'A' is true but 'R' is false.
 - (d) 'A' is false but 'R' is true.
13. **Assertion:** Polythene bags and plastic containers are non-biodegradable substances.
Reason: They can be broken down by microorganisms in natural simple harmless substances.

14. **Assertion (A) :** When the resistances are connected between the same two points, they are said to be connected in parallel.
Reason (R) : In case the total resistance is to be decreased, then the individual resistances are connected in parallel.
15. What are the final products after the digestion of carbohydrates and proteins?
16. A study found that children with light-coloured eyes are likely to have parents with light-coloured eyes. On this basis, can we say anything about whether the light eye colour trait is either dominant or recessive? Why or why not?
17. Calculate the amount of charge flowing in a wire if it draws a current of 2 mA in 10 seconds.
18. Name two metals which do not react with water.
19. How is concentration of hydronium ions (H_3O^+) affected when a solution of acid is diluted?
20. Define : food web
21. Name the light sensitive cells present in human eye.
22. Name the hormone that produces by pancreas.
23. What are trophic levels?
24. State the food chain in grassland.

Section B

Answer any 9 questions from Que. No. 25 to 37. (each carries 2 Marks)

[18]

25. A shiny brown colored element 'X' on heating in the air becomes black in color. Name the element 'X' and the black coloured compound formed.
26. Write equations for the reactions of
(i) iron with steam. (ii) calcium and potassium with water
27. What are the methods used by plants to get rid of excretory products?
28. Draw a diagram of open and closed stomata.
29. Name two organisms each which can reproduce asexually by (i) fission and (ii) by budding.
30. Light enters from air to glass having a refractive index 1.50. What is the speed of light in the glass? The speed of light in a vacuum is 3×10^8 m/s.
31. An electric iron of resistance 20Ω takes a current of 5 A. Calculate the heat developed in 30 s.
32. When a 12 V battery is connected across an unknown resistor, there is a current of 2.5 mA in the circuit. Find the value of the resistance of the resistor.
33. What is the function of an earth wire?
34. Give any two ways in which bio-degradable substances would affect the environment.
35. What is biological magnification ? Will the levels of this magnification be different at different levels of the ecosystem ?
36. What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration ?
37. When does an electric short circuit occur ?

Section C

Answer any 6 questions from Que. No. 38 to 46. (each carries 3 Marks)

[18]

- 38.** Name the type of reaction for the following:
1. Vegetable matter changing into compost.
 2. Burning of natural gas.
 3. Adding water to quick lime to form slaked lime.
- 39.** A metal 'X' combines with a non-metal 'Y' by the transfer of electrons to form a compound Z.
- (i) State the type of bond in compound Z.
 - (ii) What can you say about the melting point and boiling point of compound Z?
 - (iii) Will this compound dissolve in kerosene or petrol?
- 40. (a) Name the following :**
- (i) Metal that can be cut by knife
 - (ii) Lustrous non-metal
 - (iii) Metal that exists in liquid state at room temperature
 - (iv) Most malleable and ductile metal
 - (v) Metal that is best conductor of electricity
 - (vi) Non-metal that can exist in different forms
- 41.** Name the secretions of the following glands and give their function: pituitary, testis and ovary.
- 42.** Why does menstruation occur?
- 43.** (i) What is the role of seminal vesicle and the prostate gland?
(ii) What are the changes seen in boys at the time of puberty?
- 44.** A concave mirror is used for image formation for different positions of an object. What inferences can be drawn about the following when an object is placed at a distance of 10 cm from the pole of a concave mirror of focal length 15 cm?
- (a) Position of the image
 - (b) Size of the image
 - (c) Nature of the image
- 45.** List the sign conventions for reflection of light by spherical mirrors. Draw a diagram
- 46.** Compute the heat generated while transferring 96000 coulomb of charge in one hour through a potential difference of 50 V.

Section D

Answer any 5 questions from Que. No. 47 to 54. (each carries 4 Marks) [20]

47. What is water of crystallization? Write the common name and chemical formula of a commercially important compound which has ten water molecules as water of crystallization. How is this compound obtained? Write the chemical equation also. List any two uses of this compound.
48. (a) Write the chemical name and formula of marble.
(b) It has been found that marbles of Taj are getting corroded due to development of industrial areas around it. Explain this fact giving a chemical equation.
(c) (i) What happens when CO_2 is passed through lime water?
(ii) What happens when CO_2 is passed in excess through lime?
49. A compound 'X' on heating with excess conc. sulphuric acid at 443 K gives an unsaturated compound 'Y'. 'X' also reacts with sodium metal to evolve a colourless gas 'Z'. Identify 'X', 'Y' and 'Z'. Write the equation of the chemical reaction of formation of 'Y' and also write the role of sulphuric acid in the reaction.
50. (a) Draw a sectional view of human heart and label on it, aorta, right ventricle and pulmonary vein.
(b) State the functions of the following components of transport system:
(i) Blood
(ii) Lymph
51. (a) Name all the digestive enzymes present in our digestive system.
(b) Explain the process of digestion of carbohydrates, fats and proteins.
(c) Why do people complain of acidity problems on consuming too much of fats and proteins?
52. A student is unable to see clearly the words written on the black board placed at a distance of approximately 3 m from him. Name the defect of vision the boy is suffering from. State the possible causes of this defect and explain the method of correcting it. (diagram is compulsory)
53. (a) State Fleming's Left-hand rule.
(b) List three characteristic features of the electric current used in our homes.
(c) What is a fuse? Why is it called a safety device?
(d) Why is it necessary to earth metallic electric appliances?
54. You have been selected to talk on "Ozone layer and its protection" in the school assembly on 'Environment Day'.
(a) Why should ozone layer be protected to save the environment?
(b) List any two ways that you would stress in your talk to bring in awareness amongst your fellow friends that would also help in protection of ozone layer as well as the environment.



ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડ, ગાંધીનગર

શૈક્ષણિક વર્ષ - 2023-24

ધોરણ-10

વિષય : ગણિત (બેઝિક) (018)

વાર્ષિક પરીક્ષા

સમય : 3 કલાક

પ્રશ્નપત્રનું પરિરૂપ

ગુણ : 80

નોંધ : આ પરિરૂપ વિદ્યાર્થીઓ, શિક્ષકો, પ્રાશ્નિકો, મોડરેટર્સ વગેરેના માર્ગદર્શન માટે છે. જે તે વિષયોના પ્રાશ્નિક તેમજ મોડરેટર્સને માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણના બૃહદ્ હાર્દ/ઉદ્દેશને સુસંગત રહી પ્રશ્નપત્રની સંરચના બાબતે ફેરફાર કરવાની છૂટ રહેશે.

હેતુઓ પ્રમાણે ગુણભાર :

હેતુઓ	જ્ઞાન (K)	સમજ (U)	ઉપયોજન (A)	ઉચ્ચ વૈચારિક કૌશલ્ય		કુલ
				સંયોજન/વિશ્લેષણ	અનુમાન/મૂલ્યાંકન	
ગુણ	30	27	15	06	02	80
ટકા (%)	37.50%	33.75%	18.75%	7.50%	2.50%	100%

પ્રશ્નના પ્રકાર પ્રમાણે ગુણભાર :

ક્રમાંક	પ્રશ્નોના પ્રકાર	પ્રશ્નોની સંખ્યા		કુલ ગુણ
		વિકલ્પ વિના	વિકલ્પ સાથે	
1.	હેતુલક્ષી પ્રશ્નો (O)	24	24	24
2.	ટૂંકજવાબી પ્રશ્નો (SA-I)	09	13	18
3.	ટૂંકજવાબી પ્રશ્નો (SA-II)	06	09	18
4.	લાંબા પ્રશ્નો (LA)	05	08	20
	કુલ	44	54	80

પ્રકરણ પ્રમાણે ગુણભાર :

ક્રમ	પાઠ/પ્રકરણનું નામ	જનરલ વિકલ્પ વિના ગુણભાર	જનરલ વિકલ્પ સાથે ગુણભાર
1.	વાસ્તવિક સંખ્યાઓ	02	02
2.	બહુપદીઓ	06	06
3.	દ્વિઘાત સુરેખ સમીકરણયુગ્મ	04	08
4.	દ્વિઘાત સમીકરણ	05	07
5.	સમાંતર શ્રેણી	08	13
6.	ત્રિકોણ	04	08
7.	યામ ભૂમિતિ	08	11
8.	ત્રિકોણમિતિનો પરિચય	04	06
9.	ત્રિકોણમિતિના ઉપયોગો	02	02
10.	વર્તુળ	05	08
11.	વર્તુળ સંબંધિત ક્ષેત્રફળ	02	02
12.	પૃષ્ઠફળ અને ઘનફળ	06	06
13.	આંકડાશાસ્ત્ર	14	16
14.	સંભાવના	10	14
	કુલ	80	109

નોંધ : જનરલ વિકલ્પ સાથે દર્શાવેલ પ્રશ્નના ગુણ નમૂનાના પ્રશ્નપત્ર પ્રમાણે દર્શાવેલ છે. અન્ય પ્રશ્નપત્ર માટે આ ગુણ અલગ હોઈ શકે છે.



ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડ, ગાંધીનગર

શૈક્ષણિક વર્ષ - 2023-24

ધોરણ-10

વિષય : વિજ્ઞાન (011)

વાર્ષિક પરીક્ષા

સમય : 3 કલાક

પ્રશ્નપત્રનું પરિરૂપ

ગુણ : 80

નોંધ : આ પરિરૂપ વિદ્યાર્થીઓ, શિક્ષકો, પ્રાશ્નિકો, મોડરેટર્સ વગેરેના માર્ગદર્શન માટે છે. જે તે વિષયોના પ્રાશ્નિક તેમજ મોડરેટર્સને માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણના બૃહદ્ હાર્દ/ઉદ્દેશને સુસંગત રહી પ્રશ્નપત્રની સંરચના બાબતે ફેરફાર કરવાની છૂટ રહેશે.

હેતુઓ પ્રમાણે ગુણભાર :

હેતુઓ	જ્ઞાન (K)	સમજ (U)	ઉપયોજન (A)	ઉચ્ચ વૈચારિક કૌશલ્ય		કુલ
				સંયોજન/વિશ્લેષણ	અનુમાન/મૂલ્યાંકન	
ગુણ	20	28	24	04	04	80
ટકા(%)	25%	35%	30%	5%	5%	100%

પ્રશ્નના પ્રકાર પ્રમાણે ગુણભાર :

ક્રમાંક	પ્રશ્નો પ્રકાર	પ્રશ્નોની સંખ્યા		કુલ ગુણ
		જનરલ વિકલ્પ વિના	જનરલ વિકલ્પ સાથે	
1.	હેતુલક્ષી પ્રશ્નો (O)	24	24	24
2.	ટૂંકજવાબી પ્રશ્નો (SA-I)	09	13	18
3.	ટૂંકજવાબી પ્રશ્નો (SA-II)	06	09	18
4.	લાંબા પ્રશ્નો (LA)	05	08	20
	કુલ	44	54	80

પ્રકરણદીઠ ગુણભાર

ક્રમ	પાઠ/પ્રકરણનું નામ	જનરલ વિકલ્પ વિના ગુણભાર	જનરલ વિકલ્પ સાથે ગુણભાર
1.	રાસાયણિક પ્રક્રિયાઓ અને સમીકરણ	05	05
2.	એસિડ, બેઇઝ અને ક્ષાર	07	10
3.	ધાતુઓ અને અધાતુઓ	07	10
4.	કાર્બન અને તેનાં સંયોજનો	06	06
5.	જૈવિક ક્રિયાઓ	08	14
6.	નિયંત્રણ અને સંકલન	06	06
7.	સજીવો કેવી રીતે પ્રજનન કરે છે ?	06	10
8.	આનુવંશિકતા	03	03
9.	પ્રકાશ - પરાવર્તન અને વક્રીભવન	08	08
10.	માનવ-આંખ અને રંગબેરંગી દુનિયા	05	09
11.	વિદ્યુત	08	10
12.	વિદ્યુતપ્રવાહની ગુંબકીય અસરો	05	08
13.	આપણું પર્યાવરણ	06	10
	કુલ	80	109

નોંધ : જનરલ વિકલ્પ સાથે દર્શાવેલ પ્રશ્નના ગુણ નમૂનાના પ્રશ્નપત્ર પ્રમાણે દર્શાવેલ છે અન્ય પ્રશ્નપત્ર માટે આ ગુણ અલગ હોઈ શકે છે.