

This Question Paper contains 20 printed pages.

(Part - A & Part - B)

Sl.No. **0100028**

11 (E)
(JULY, 2018)
(NCERT OTHERS)

પ્રશ્ન પેપરનો સેટ નંબર જેની
સામેનું વર્તુળ OMR શીટમાં
ઘટ્ટ કરવાનું રહે છે.
Set No. of Question Paper,
circle against which is to be
darken in OMR sheet.

01

Question Paper Reading 15 Minutes

Part - A : Time : 1 Hour / Marks : 50

Part - B : Time : 2 Hours / Marks : 50

(Part - A)

Time : 1 Hour]

[Maximum Marks : 50

Instructions :

- 1) There are 50 multiple choice type questions in Part - A and all of them are compulsory.
- 2) The questions are serially numbered from 1 to 50 and each carries 1 mark.
- 3) Read each question carefully, select proper alternative and answer in the O.M.R. sheet.
- 4) Separate OMR sheet is given for answering these questions. The answer of each question is to be given by darkening the circle against options (A), (B), (C), (D) . Circle ● representing the most correct answer is to be darken with ball-pen.
- 5) Set No. of Question Paper printed on the upper-most right side of the Question Paper, the same is to be written in the space provided in the OMR sheet and circle depicting the correct set No. is to be darken with ball pen.



The above reaction is an example of a

- (A) combination reaction
- (B) double displacement reaction
- (C) decomposition reaction
- (D) displacement reaction

Rough Work

- 2) Identify the correct value for X, Y, Z in the given chemical equation.
- $$3 \text{ Fe} + \underline{\text{X}} \text{ H}_2\text{O} \rightarrow \text{Fe}_\underline{\text{Y}} \text{ O}_4 + \underline{\text{Z}} \text{ H}_2$$
- (A) $\text{X} = 4, \text{Y} = 3, \text{Z} = 3$
- (B) $\text{X} = 4, \text{Y} = 3, \text{Z} = 4$
- (C) $\text{Z} = 2, \text{Y} = 3, \text{X} = 2$
- (D) $\text{Y} = 2, \text{Z} = 2, \text{X} = 4$
- 3) A solution of a substance 'X' is used for white washing. Identify the substance 'X' and its formula.
- (A) lime stone, $\text{Ca}(\text{OH})_2$
- (B) lime, CaCO_3
- (C) calcium oxide, CaO
- (D) slaked lime, CaCO_3
- 4) Which of the following method is applicable to prevent Rancidity of oil and fat.
- (A) By flushing with N_2 gas
- (B) By keeping oil and fat in air tight container
- (C) By preventing oxidation
- (D) All of the above
- 5) Which of the following statement is not correct about the given reaction. $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}$
- (A) Skeletal chemical equation
- (B) Oxidation reaction
- (C) Combination reaction
- (D) Decomposition reaction

Rough Work

- 6) A solution turns red litmus blue, its pH is likely to be
- (A) 1 (B) 4
(C) 5 (D) 10
- 7) Which of the following is in correct order of pH?
- (A) Lemon juice < blood < milk of magnesia
(B) Gastric juice < sodium hydroxide < pure water
(C) Milk of magnesia > Gastric juice > blood
(D) Sodium hydroxide < blood < lemon juice
- 8) Which of the following acid is present in Nettle sting?
- (A) Tartaric acid
(B) Oxalic acid
(C) Acetic acid
(D) Methanoic acid
- 9) I want to bleach my clothes. Which of the following compound should I use?
- (A) Ca(OH)_2 (B) CaOCl_2
(C) Cl_2 (D) CaSO_4
- 10) 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

Rough Work

- 11) Food cans are coated with tin and not with zinc because:
- (A) Zinc is costlier than tin
 - (B) Zinc has a higher melting point than tin
 - (C) Zinc is more reactive than tin
 - (D) Zinc is less reactive than tin
- 12) Identify the non-metal with lustrous surface.
- (A) Gallium
 - (B) Chlorine
 - (C) Iodine
 - (D) Caesium
- 13) Sodium is kept immersed in kerosene oil because:
- (A) It reacts with moisture in the air
 - (B) Immersing in kerosene cuts off the supply of air
 - (C) The reaction of sodium with air is very violent
 - (D) All of the above
- 14) You are given two statements P and Q select the correct inference from this.
- P → The ability of a metal to be drawn into thin wire is called malleability.
- Q → Alkali metals are comparatively soft and have low melting points.
- (A) P and Q
 - (B) P only
 - (C) Q only
 - (D) P and Q both are incorrect

Rough Work

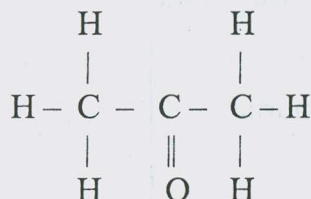
15) In general the number of electrons in the outermost shell of the non-metallic atom are _____.

- (A) 1, 2, 3
- (B) 5, 6, 7
- (C) 2, 6
- (D) 2, 8, 7

16) Identify the saturated compound from the following-

- (A) C_4H_{10}
- (B) C_3H_6
- (C) C_4H_6
- (D) C_4H_8

17) Identify the correct name of the following compound



- (A) Butane
- (B) Propanol
- (C) Propanal
- (D) Propanone

18) Identify the wrong statement.

- (A) Ethanoic acid is used as a preservative
- (B) Vinegar often freezes during winter is known as glacial acetic acid
- (C) Acetic acid belongs to carboxylic acid
- (D) 5 - 8% solution of ethanol is called as vinegar

- 19) The group number and period number respectively of an element with atomic number 11 is
- (A) 1, 3 (B) 3, 1
(C) 8, 1 (D) 1, 8
- 20) Which of the following statements is not a correct statement about the trends when going from left to right across the periods of periodic table.
- (A) The elements become less metallic in nature
(B) The number of valence electrons increases
(C) The atoms lose their electrons more easily
(D) The oxides become more acidic
- 21) The break down of pyruvate to give carbon dioxide, water and energy takes place in
- (A) Cytoplasm (B) Mitochondria
(C) Chloroplast (D) Nucleus
- 22) Which of the following alternative shows the correct path of deoxygenated blood flows in human beings.
- (A) lungs → Pulmonary vein → left atrium → left ventricle → different organ
(B) Venacava → left atrium → left ventricle → Pulmonary artery
(C) Venacava → Right atrium → Right ventricle → Pulmonary artery
(D) Venacava → Right atrium → Right ventricle → Pulmonary vein

- 23) Part of the brain that controls activities like dancing, skating, walking in straight line.

(A) Medulla
(B) Cerebellum
(C) Hypothalamus
(D) Cerebrum

- 24) A potted plant is kept in a room. It starts to bend towards the direction of light.

Name the plant hormone responsible for it.

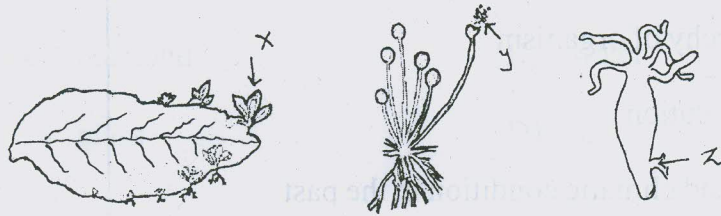
(A) Cytokinins
(B) Gibberellins
(C) Abscissic acid
(D) Auxin

- 25) Identify the correct statement about chemotropism.

(A) Shoots grow towards light
(B) Roots grow towards earth or gravity
(C) Pea plant climbs up on other plant
(D) Growth of pollen tubes towards ovules

- 26) Which of the following is a correct general scheme of how nervous impulses travel in the body.
- (A) Information → Axon → dendrite → Synapse
 - (B) Dendrite → electrical signal → Axon → cell body
 - (C) Information → dendritic tip → electrical signal → cell body → Axon → Synapse
 - (D) Cell body → electrical signal → Axon → dendrite → Synapse
- 27) Reproduction is essential for living organisms in order ____.
- (A) To keep the individual organism alive
 - (B) To fulfill the energy requirement
 - (C) To maintain growth
 - (D) To continue the species generation after generation
- 28) The correct sequence of the stages of reproduction seen in flowering plants is
- (A) Gametes, Zygote, Embryo
 - (B) Zygote, Gametes, Embryo
 - (C) Embryo, Zygote, Gametes
 - (D) Gametes, Embryo, Zygote
- 29) Which of the following is a contraceptive?
- (A) Copper - T
 - (B) Condom
 - (C) Diaphragm
 - (D) All of these

30) Identify the mode of reproduction in the given figure.



- (A) X = vegetative propagation, Y = spore formation, Z = budding
- (B) X = budding, Y = vegetative propagation, Z = Regeneration
- (C) X = spore formation, Y = Multiple fission, Z = Vegetative propagation
- (D) X = Regeneration, Y = budding, Z = spore formation

31) The more characteristics of two species have in common.

- (A) More closely they are related and more distantly they have common ancestor
- (B) More distantly they are related and more recently they have a common ancestor
- (C) More distantly they are related and more distantly they have common ancestors
- (D) More closely they are related and more recently they will have had a common ancestor

32) An example of homologous organ is

- (A) Our arm and a dog's fore-leg
- (B) Our teeth and an elephant's tusks
- (C) Potato and runners of grass
- (D) All of the above

Rough Work

- 33) Fossils help
- (A) For a hierarchy of organism
 - (B) To study evolution
 - (C) To understand climatic condition in the past
 - (D) all of the above
- 34) In a concave mirror, an object placed _____ will result in a virtual, enlarge and erect image.
- (A) Between F and C
 - (B) at C
 - (C) Beyond C
 - (D) Between F and P
- 35) What happens when a ray of light passes from optically denser medium to optically rarer medium?
- (A) It bends away from normal
 - (B) It bends towards normal
 - (C) It forms angle of incidence and angle refraction equal
 - (D) It forms angle of incidence and angle of reflection different
- 36) Magnification of an image formed by a plane mirror is ____.
- (A) < 1
 - (B) > 1
 - (C) 1
 - (D) 0

Rough Work

37) Light travels fastest through which of the following material?

- (A) diamond
- (B) water
- (C) glass
- (D) air

38) Which of the following statement is not correct.

- (A) The sky appears reddish to passengers flying at very high altitudes, as scattering is not prominent at such height
- (B) A rainbow is a natural spectrum appearing in the sky after a rain shower
- (C) The twinkling of a star is due to atmospheric refraction of star light
- (D) Planets do not twinkle as they are much closer to the earth, and are thus seen as extended sources

39) An electric bulb is rated 220 V and 100 W when it is operated on 110 V the power consumed will be:

- (A) 100 W
- (B) 75 W
- (C) 50 W
- (D) 25 W

40) Ohm's law is valid only when

- (A) Graph between V and I is parallel
- (B) Temperature remains constant
- (C) Temperature increases
- (D) Temperature decreases

Rough Work

41) If you run _____ watt bulb for 1 hour, the energy consumed will be 1 unit.

- (A) 10 (B) 100
(C) 1000 (D) 3.6×10^6

42) Which of the following is not a correct formula

- (A) $P = \frac{V^2}{R}$ (B) $H = I^2 R t$
(C) $R = \rho \frac{l}{A}$ (D) $V = \frac{Q}{W}$

43) Which of the following are the units of electric potential difference and resistance respectively.

- (A) Volt and Watt (B) $\frac{J}{A}$, Volt
(C) Volt, Ohm (D) Volt, $\frac{\text{Ohm}}{\text{Ampere}}$

44) An electric fuse is based on

- (A) The chemical effect of the current
(B) Magnetic effect of the current
(C) Magnetic induction effect
(D) The heating effect of the current

Rough Work

- 45) The phenomenon of electromagnetic induction is
- (A) The process of charging a body
 - (B) The process of generating magnetic field due to a current passing through a coil
 - (C) Producing induced current in a coil due to relative motion between a magnet and the coil
 - (D) The process of rotating a coil of an electric motor
- 46) At the time of short circuit, the current in the circuit.
- (A) reduces substantially
 - (B) does not change
 - (C) increases heavily
 - (D) vary continuously
- 47) Which of the following statement is correct for Fleming's left hand rule
- P - First finger points in the direction of magnetic field.
- Q - Thumb points in the direction of motion or the force acting on the conductor.
- R - Second finger points in the direction of current.
- (A) Only P
 - (B) Only Q
 - (C) Only R
 - (D) P, Q and R all are true

- 48) The magnetic field inside a long straight solenoid carrying current
- (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.
- 49) Which of the following is not an example of a bio-mass energy source.
- (A) wood
 - (B) Gobargas
 - (C) atomic energy
 - (D) Coal
- 50) Which of the following are environment-friendly practices?
- (A) Use of pressure cooker most of the time
 - (B) Soak rice in water before cooking
 - (C) Walking to school instead of getting your mother to drop you on her scooter
 - (D) All of the above

11 (E)
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(NCERT OTHERS)

(Part - B)

Time : 2 Hours]

[Maximum Marks : 50

Instructions :

- 1) Write in a clear hand writing.
 - 2) There are four sections in Part - B of the question paper and total 1 to 18 questions are there.
 - 3) All questions are compulsory. Internal options are given.
 - 4) The numbers at the right side represents the marks of the questions.
 - 5) New section may be started on a new page of answer book.
 - 6) It is advisable to maintain sequence.
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SECTION - A

■ Answer the questions 1 to 5 in short (2 marks each).

- 1) What do you mean by a precipitation reaction? Explain giving one example. [2]
- 2) Why should curd and sour substances not be kept in brass and copper vessels? [2]
- 3) Give reasons: [2]
 - i) Aluminium is a highly reactive metal, yet it is used to make utensils for cooking.
 - ii) Carbonate and sulphide ores are usually converted into oxides during the process of extraction.

- 4) Light enters from air to glass having refractive index 1.50, what is the speed of light in the glass? The speed of light in vacuum is $3 \times 10^8 \text{ ms}^{-1}$. [2]

OR

An object is placed at a distance of 10 cm from a convex mirror of focal length 15 cm. Find the position of the image.

- 5) Why does the cord of an electric heater not glow while the heating element does? [2]

OR

Draw a schematic diagram of a circuit consisting of a battery of three cells of 2V each, a 5Ω resistor, an 8Ω resistor, and a 12Ω resistor and a plug key, all connected in series.

SECTION - B

■ Answer the questions 6 to 10 in short (2 marks each).

- 6) One half of a convex lens is covered with a black paper. Will this lens produce a complete image of the object? Draw a ray diagram to show the formation of an image by a convex lens if object is placed between focus and centre of curvature. [2]
- 7) A student has difficulty reading the blackboard while sitting in the last row. What could be the defect the child is suffering from? How can it be corrected? [2]
- 8) Why are we looking at alternate sources of energy? [2]
- 9) What is the role of decomposers in the ecosystem? [2]

OR

What will happen if we kill all the organism in one trophic level?

- 10) Suggest some uses of forests. [2]

SECTION - C

- Answer the following questions 11 to 15 in brief (3 marks each).

11) Compare and contrast the arrangement of elements in Mendeleev's periodic table and the Modern Periodic Table. [3]

12) What is the difference between the manner in which movement in the sensitive plant and movement in our legs takes place? [3]

13) Write in brief about the importance of variation. [3]

OR

Write short note on a male reproductive system.

14) How is the sex of the child determined in human being? Is a male or a female responsible for determining the sex of the child? [3]

15) Draw a labelled diagram of an electric motor. Explain its principle. [3]

OR

Explain the underlying principle of an electric generator.

SECTION - D

- Answer the following questions 16 to 18 in details (5 marks each).

- 16) i) Explain the mechanism of the cleaning action of soap with diagram.
- ii) People use a variety of methods to wash clothes. Usually after adding the soap, they 'beat' the clothes on a stone, or beat it with paddle, scrub with a brush or the mixture is agitated in a washing machine. Why is agitation necessary to get clean clothes?

[5]

OR

- i) State the physical properties and uses of ethanol.
- ii) Write the chemical properties of ethanol with two chemical equation.
- 17) Explain the process of digestion in mouth, stomach and small intestine in human being.

[5]

OR

Explain the human excretory system with a neat, labelled diagram. Also explain how excretion takes place in human.

- 18) Draw a neat labelled diagram of human eye and write the working of each part of it.

[5]

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