Time: 3 hrs. M.M.: 90

Paper is divided in two parts, PART-A and PART-B

In PART-A: Ques.1 to 3 are Very Short Answer Type and carry 1 mark each.

Ques. 4 to 7 are Short Answer Type carry 2 marks each.

Ques. 8 to 19 are Long Answer Type carry 3 marks each.

Ques. 20 to 24 are Very Long Answer Type and carry 5 marks each.

PART-B is Activity based Multiple Choice Questions carries 1 mark each

PART-A

- Q.1 Define 1 light year?
- Q.2 Which main air pollutant is released by refrigerators and air conditioners?
- Q.3 Name four air pollutants produced by burning of fossil fuels?
- Q.4 A force of 150N is applied to an object of area 5m². Calculate the pressure.
- Q.5 What are ultrasonic sounds? Name 2 animals that produce ultrasonic sounds?
- Q.6 (a) What is meant by chemical effects of electric current?
 - (b) List 2 chemical effects of electric current?
- Q.7 Draw a ray diagram to formation of image of a point object in a plane mirror.
- Q.8 How is the sex determined in human beings? Explain with the help of a flow chart.
- Q.9 Explain why (a) heavy truck is fitted with six to eight wheels? (b) a sharp knife cut objects more effectively than a blunt knife?
- Q.10 (a) Define rolling friction and sliding friction?
 - (b) Explain why rolling friction is less than sliding friction?
- Q.11 (a) What is meant by streamlined shape?
 - (b) Why the bodies of ships and boats are streamlined?
- Q.12 (a) If a simple pendulum makes 30 oscillations in 5 seconds. What is its frequency?
 - (b) Define Loudness and Frequency.
- Q.13 (a) Define electrolysis with its 2 applications.
 - (b) Explain why iron objects are electroplated in chromium?
- Q.14 How do you protect yourself from lightning (a) inside the home (b) outside? (two measures each)
- Q.15 (a) Draw a well labelled diagram of a human eye?
 - (b) What is meant by dispersion of light?
- Q.16 In a human eye, what is the function of the following-
 - (a) Cornea
- (b) Iris
- (c) Retina

Q.17	Write any 3 differences between meteors and meteorites?								
Q.18	What is the importance of ozone layer in atmosphere and explain 2 damaging effects of ozone layer depletion?								
Q.19	Explain the terms (a) biological magnification (b) global warming (c) acid rain.								
Q.20	What is puberty? What happens at this stage of life? (2+3)								
	OR								
	(a) What are hormones ?								
	(b) How do hormones work?								
	(c) Give the name and functions of hormone srecreted by pituitary gland. (1+2+2)								
Q.21	What is force? Explain the four effects, a force can produce, giving relevant examples.								
	OR								
	"Friction is a necessary evil" Explain by giving 3 advantages and 2 disadvantages of friction.								
Q.22	(a) Draw a well labelled diagram of human ear.								
	(b) Give one point of difference between noise and music. (3+2)								
	OR								
	What is electroplating? Describe the electroplating of copper on an iron spoon with diagram?								
Q.23	What is meant by following phases of the moon:								
	(a) new moon (b) crescent moon (c) first quarter (d) gibbous moon (e) full moon \mathbf{OR}								
	Name the following planet(s):								
	(a) 2 planets which can be seen by naked eyes.								
	(b) smallest and biggest planets of solar system.								
	(c) nearest and farthest planets of solar system.								
	(d) Whose period of revolution is minimum.								
	(e) Whose period of rotation is maximum.								
Q.24	(a) What is a volcano? How do volcanoes cause earthquake?								
	(b) List any 2 damaging effects of earthquake ?								
	(c) What is richter scale?								
	OR								
	(a) Explain any 3 harmful effects of water pollution.								
	(b) Write any 4 methods you suggest to control water pollution.								

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In the activity shown above, ∠AON and ∠BON are									
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Q.41 Blind spot is found									
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PART-B

Q.25	Which kind of force works when the straw rubbed with paper attracts the suspended straw.							
	a)	Magnetic force	b)	Electrostatic force				
	c)	Gravitational force	d)	Muscular force	[]		
Q.26	6 Why the piece of card does not fall while the glass tumbler is inverted and full of water.							
	a)	the upward atmospheric pressure is greater th	nan do	ownward pressure of water on card.				
	b)	the upward atmospheric pressure is less than	down	ward pressure of water on card				
	c)	both of these						
	d)	none of these			[]		
Q.27	Ву р	lacing pencils as rollers in the activity						
	a)	reduces friction	b)	increase friction				
	c)	increase interlocking	d)	all of these]]		
Q.28	Fricti	ion between 2 surfaces is due to its						
	a)	overlapping	b)	overriding				
	c)	interlocking	d)	interface	[]		
Q.29	9 When we stop the ruler from vibrating by touching it with our fingers ,what will happen?							
	a)	it also stops producing sound	b)	it starts producing sound				
	c)	more sound is produced	d)	less sound is produced	[]		
Q.30	Sound is produced by a body.							
	a)	vibrating	b)	still				
	c)	stationary	d)	none of these	[]		
Q.31	31 If the rubber bands are very much stretched sound is produced.							
	a)	low pitched	b)	high pitched				
	c)	some times low and some times high pitched	d)	none of these	[]		
Q.32	Disti	Distilled water is a conductor of electricity.						
	a)	good b) better c) poor		d) best	[
Q.33	Addi	tion of salts, acids or bases make distilled water	er	conductor of electricity.				
	a)	good	b)	poor				
	c)	some times good and some times poor	d)	none of these	[]		