# The Competition in Science & Research Skills

# Science & Research Test I & II MODEL PAPERS

Class: VI



Hyderabad | India

#### Eduranet Intellectual Olympiad Foundation

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#### **SYLLABUS**

#### I) Physics

- 1. Motion& Measurement of Distances
- 2. Light
- 3. Electricity
- 4. Fun with magnets
- 5. Simple Machines

#### II) Chemistry

- States of Matter
- 2. Fibre to Fabric
- 3. Classification of Materials
- 4. Teachniques of Separation
- 5. Physical & Chemical Changes
- 6. Water
- 7. Air

#### III) Biology

- 1. Food And its Source
- 2. Components of Food
- 3. Plants and Their Types
- 4. Body Movements
- 5. Living Organisms and their Surroundings
- 6. Garbage & Their Disposal

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### **SCIENCE & RESEARCH TEST-I**

CODE: 2161

#### **PRELIMS**

Max. Marks: 75 Duration: 75 Mins.

#### **General Instructions:**

- 1. Please find the Answer Sheets (OMR) with in the envelop given to you.
- Mention your Test Code, Student ID, Name, Class, Section and School Name on the OMR Sheet as per Question Paper and Hall Ticket.
- 3. This question paper contains 75 Questions, duration is 75 minutes.
- 4. Do rough work in the empty sheet provided along with this question paper.
- Answer questions in OMR sheet only.
- 6. Don't write or tick anything on the question paper.
- 7. Use only Black or Blue Ball Point Pen or Dark Pencil to answer the question in OMR sheet.
- 8. Indicate the correct answer by darkening one of the 4 or 5 responses provided.
- 9. Submit only OMR sheet to the invigilator.

#### 1. The form of energy present in a wound spring is:

a) chemical

b) heat energy

c) magnetic

d) mechanical

#### 2. A chemical, when burned, produces energy if:

- a) The energy absorbed by reactants is more than the energy released by products
- b) the energy absorbed by reactants is less than the energy released by products
- c) the energy released by products is equal to energy absorbed by reactants
- d) it reacts with carbon dioxide

Class : VI

3.	What is the least amount of energy required by a man to lift an object weighing 1000 N to a height of 2m?						
	a) 500 J	b) 2000 N	c) 500 N	d) 2000 J			
4.	A solid of volume 1 m³ is cut into pieces of volume 1 cm³ each. The number of pieces will be						
	a) 1000		b) 10,000				
	c) 100,000		d) 10,00,000				
5.	Study the f	ollowing staten	nents				
	I. A metre s	scale can be used	to measure leng	th of curved surface			
	II. The num	II. The number of grams in 1 quintal is 100,000					
	III. A hectar	III. A hectare is a unit of measurement of volume.					
	IV. Volume of a liquid can be measured by knowning the capacity of container.						
	Which of the given statements are correct?						
	a) I and III o	nly	b) II and IV o	nly			
	c) I and II or	nly	d) III and IV o	only			
6.	In a pin ho	ole camera, the	image formed	is			
	a) erect	b) inverted	c) smaller	d) larger			
7. Which type of motion(s) does the whe				of a running car			
	a) Linear		b) Circular				
	c) Periodic	& circular	d) Linear & c	ircular			
8.	What happ	ens when lighte	ening occurs?				
	a) Light comes from sun to cloud						
	b) light com	b) light comes from cloud to earth					
	c) Electric current flows in a atmosphere						

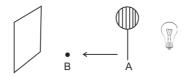
d) Electric current flows from sun to cloud

- 9. The shadow cast by a pole under the sun will be shortest at
  - a) 8.30 am

b) 10.00 am

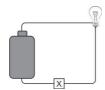
c) 12 noon

- d) 5.00 pm
- "Speed of light is the same, no matter how it is measured" was first contemplated by
  - a) A.A. Michelson
- b) John Dalton
- c) Albert Einstein
- d) None of these
- 11. A lamp, a ball and a paper are kept as shown in the figure below. What will be the change in the shadow, if the ball is moved form A to B?



- a) Become large
- b) Remain same
- c) Become small
- d) Get distorted
- 12. The brightness of a bulb in a closed circuit does not depend on
  - a) The arrangement of batteries
  - b) The number of batteries used
  - c) The length of wire used
  - d) The type of bulb used

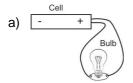
## 13. In the given circuit tester diagram, what could X be if the bulb does not light up?

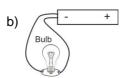


a) Iron nail

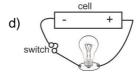
- b) Copper coin
- c) Aluminium rivet
- d) Glass marble

#### 14. Select the cirucuit in which an torch bulb will glow?









## 15. Nidhi has two bulbs connected across two cells in a simple circuit. How can she make the bulbs glow dimmer?

- a) Replace one cell with a piece of chalk
- b) Replace one cell with a piece of wire
- c) Replace one bulb with a piece of wire
- d) Replace one bulb with another cell

## 16. When the two terminals are connected directly with a wire then:

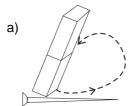
- a) more electrical energy is stored in the cell
- b) the chemicals get used up very fast.
- c) no current flows in the wire
- d) none of these.

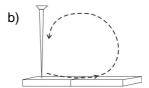
- 17. Soft iron pieces are placed across he ends of bar magnets when stored. Such pieces are called.
  - a) preservatives

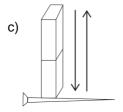
b) keepers

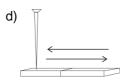
c) compasses

- d) poles
- 18. Which of the following is the correct way of making a magnet out of a nail?

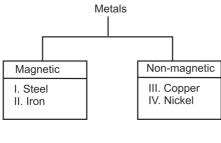








19. Study the chart. Which metal has been grouped incorrectly?



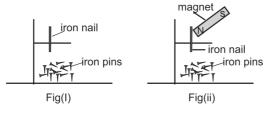
a) I

b) II

c) III

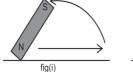
d) IV

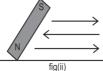
## 20. Look at the figure showing iron pins being attracted towards nail i (ii) and tell which of the following is demonstrated by it?



- a) Pins get converted into artificial magnet in fig. (ii)
- b) Pins gets demagnetised in fig. (i)
- c) The iron nail becomes an artificial magnet in fig. (ii)
- d) None of the above occurs

#### 21. The correct method of making an artificial magnet is





- a) as shown in fig. (i)
- b) as shown in fig. (ii)
- c) Both are correct
- d) None of these is correct

## 22. Which of the following actions is a combination of pulling and pushing forces?

- a) Squeezing toothpaste out of tube
- b) Twisting a rope
- c) Closing a door
- d) Typing a letter

## 23. Look at the given set of gears. Which of the following statements is correct?



- a) Gears A and C move in opposite direction.
- b) Gears A and B move in same direction.
- c) Gear B rotates faster than gear A
- d) Gear C rotates faster than gear A
- 24. In a pair of scissor, the \_\_i\_ is between \_ii\_. Which information completes the given statement?
  - a) i Fulcrum, ii effort and load
  - b) i Effort, ii- fulcrum and load
  - c) i Load, ii effort and fulcrum
  - d) i Load, ii fulcrum and load
- 25. Which of the following represents correct example of first, second and third class levers?

	First Class lever	Second Class lever	Third class lever
I.	Scissors,	Wheel barrow	Broom
II.	Ice tongs	Tweezer	Paper cutter
III.	Pliers	Nut cracker	Fishing rod

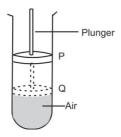
a) I and II only

b) II and III only

c) I and III only

d) I, II and III only

26. In the given figure, air is compressed when the plunger moves from P to Q.



- a) Has no definite volume
- b) Has particles that are compressible
- c) Has particles of negligible mass
- d) Has particles that are constantly moving
- 27. Which of the following consists of two different types of atoms?
  - Silver
- II. Zinc
- III. Ice
- IV. Dry ice

- a) I and II only
- b) II and III only
- c) III and IV only
- d) IV and I only
- 28. Which of the following is a water soluble material?
  - a) Nitrogen
  - b) Blue Vitriol
  - c) Milk
  - d) Saffron

29. Match column-I with Column-II and select the correct answer using the code given below the columns.

Column-I(Objects)	Column-II(Property)
(A) Aluminum	(p) Transparent
(B) Sand	(q) Translucent
(C) Glass	(r) Dull appearance
(D) Oiled paper	(s) Shiny appearance

a) 
$$A \rightarrow (p); B \rightarrow (q); C \rightarrow (r); D \rightarrow (s)$$

b) 
$$A \rightarrow (q); B \rightarrow (r); C \rightarrow (s); D \rightarrow (p)$$

c) 
$$A \rightarrow (r); B \rightarrow (q); C \rightarrow (s); D \rightarrow (p)$$

d) 
$$A \rightarrow (s); B \rightarrow (r); C \rightarrow (p); D \rightarrow (q)$$

- 30. Select the one that is different from others
  - a) PVC pipe

- b) GI pipe
- c) Basket made of plastic
- d) Plastic toy
- 31. Bleeching and dyeing are usually done
  - a) Just before the fabrics are made
  - b) After the fabrics are made
  - c) Before the yarns are made
  - d) After the yarns are made
- 32. Why in the process of spinning cotton fibres are twisted?
  - a) Cotton fibres are twisted to bring the fibres together to form fabric.
  - b) Cotton fibres are twisted to bring the fibres together to form yarn.
  - c) Cotton fibres are pulled to make a fabric
  - d) Cotton fibres are pulled to make a fabric

33. In the process of knitting the number of yarns used is\_\_\_\_

a) 1

- b) 2
- c) either one or two
- d) None of these

34. 1 kg of iron occupies less space compared to 1 kg of sponge. Why?

- a) Iron has less density than sponge
- b) Iron and sponge have equal densities
- c) Iron has more density than sponge
- d) None of the above

35. A material 'X' is flexible but sometimes it is not. It can float but sometimes it sinks. The material 'X' is

a) Rock

b) Plastic

c) Ceramic

d) Glass

36. An electric iron is made up of a combination of

- I. Plastic
- II.Metal
- III. Glass



a) I only

b) II only

c) I and II only

d) II and III only

37. You can use decantation to separate:

- a) two miscible liquids
- b) two immiscible liquids
- c) two metals in an alloy
- d) solid-solid mixture

	•			
38.	-		m chloride and	-
	a) Equal dens	ities	b) Sublimation	oroperty
	c) Equal melti	ng points	d) pure homoge	eneous mixtures
39.	Study the given	ven equation :-		
	$Solid \xrightarrow{heatin}_{coolin}$	$\stackrel{\text{dg}}{\longrightarrow} Vapour$		
	The process s	shown above is -		
	a) Fractional of	distillation	b) Sedimentation	on
	c) Sublimation	١	d) Coagulation	
40.	dissolving 8		substance wa te in 100ml of ( in g/100 ml)	•
	a) 2	b) 4	c) 6	d) 8
41.		<u> </u>	and the magnet reaction might	
	a) Chemical c	ombination	b) Photochemic	cal reactions
	c) irreversible	reaction	d) Physical cha	nge
42.	a saturated s	solution of salt	obtained by he was found to be water is (in g/ 1	e 7 g. It shows
	a) 7	b) 5		
	c) 6	d) can't predict		
43.	Lightning is	a <u> i</u> and _	<sub>⊪</sub> chang	е
	a) i- fast; ii-ph	ysical	b) i- fast; ii-chei	mical
	c) i-slow; ii-rev	versible	d) i-slow; ii-irrev	ersible

#### 44. Study the given chemical changes.

- I. Formation of clouds
- II. Formation of oxides of nitrogen during lightning
- III. Burning of rocket fuel in a rocket

Which of the these are chemical changes?

- a) Only I and II
- b) Only II and III
- c) Only I and III
- d) All the above are chemical changes

#### 45. Which of following statements is true?

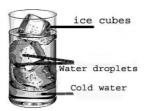
- a) The salinity of rivers increase with time
- b) The salinity of rivers decrease with time
- c) The salinity of seas increase with time
- d) The salinity of seas decrease with time

## 46. In a cloud, the size of the droplets \_\_\_\_\_ causing rainfall because they become \_\_\_\_ || \_\_\_\_ causing rainfall

Which information completes the given statement?

- a) i- Increases, ii- heavier
- b) i- Increases, ii- lighter
- c) i- Decreases, ii-heavier
- d) i- Decreases, ii- lighter

## 47. Kapil observed water droplets on the outside of a glass of cold water. The water droplets come from



- a) The water vapour in the air
- b) The cold glass surface
- c) The ice cubes in the glass
- d) The cold water in the glass

## 48. Which of the following statements is correct for nitrogen gas?

- a) It supports combustion
- b) It burns itself.
- c) It regulates burning in atmosphere.
- d) It is harmful.

## 49. When we heat water, we can find bubbles coming from it. This shows that:

- a) water contains air
- b) air contains water
- c) hot water becomes bubbles
- d) none of these

#### 50. The humidity of a place :

- a) lies between 10% 20%
- b) is always more than 50%
- c) is always less than 80%
- d) varies from time to time

51. The child in the given figure is suffering from a deficiency disease. This disease is caused due to deficiency of



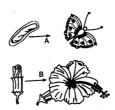
a) carbohydrates

b) proteins

c) fats

- d) vitamins
- 52. How many grams of copper sulphate be dissolved in 100 ml of water to prepare copper sulphate solution for testing the presence of proteins in a food item?
  - a) 1
- b) 2
- c) 3
- d) 4

- 53. The fat soluble vitamins are
  - a) vitamin B and vitamin C
  - b) vitamin A, vitamin D, vitamin E
  - c) vitamin A and vitamin B
  - d) none of the above
- 54. Observe the diagrams and find the most correct statement.



- a) Both A & B are the examples of artificial & irreversible change
- b) Both A & B are the examples of natural & reversible change
- c) Both A & B are examples of artificial & reversible change
- d) Both A & B are example of natural & irreversible change

#### 55. In gram dal which food constituent is found the most?

a) Fats

b) Carbohydrates

c) Proteins

d) Vitamins

#### 56. Which of the following is a rich source of Vitamin A?







- d) None of these
- 57. Defeciency of calcium results in :
  - a) tooth decay

b) weak muscles

c) loss of vision

d) bleeding of gums

#### 58. Which of the following contain zero value calories?









Soft drinks

#### 59. Separation of seeds from cotton bolls is called:

a) winnowing

b) threading

c) ginning

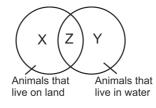
d) spinning

60.	Jute fibre is obtained from	the of jute plant.
	a) leaves	b) seeds
	c) roots	d) stem
61.	Flax is a/an:	
	a) animal	b) synthetic fibre
	c) plant	d) fabric
62.	Which of the following has	fibrous root system?
	a) Grass	b) Maize
	c) Spinach	d) Mustard
63.	A stem grows from the	of the seed.
	a) bud	b) axil
	c) plumule	d) vegetative bud
64.	The sticky, terminal part o	f the pistil is called:
	a) stigma	b) ovary
	c) ovule	d) style
65.	In which of the following fast?	habitats, the animals can move
	a) Grassland	b) Mountain
	c) Desert	d) Forest
66.	The given figure illustrates parts of the tree is not aliv	a plant structure. Which labelled e?
	a) I b) II	c) III d) IV
	∽, .	۵, a, ۱۷

20

#### 67. Study the given venn diagram.

Which of the following animals can be placed in group Z.



- a) Bird
- b) Frog
- c) Shark
- d) Dog

#### 68. The part marked 'A' in the figure of cucumber plant is called



- a) prop root
- b) tendril
- c) climber
- d) petiole

#### 69. Which of the following statements is incorrect?

- a) The body of earthworm is made up of many rings joined end to end.
- b) Outer skeleton of snail is called shell.
- c) Pivotal joint allow us to bend our head forward and backward
- d) None of these

#### 70. Which of the following is a genetic disease?

- a) Sickle cell anaemia
- b) Tuberculosis
- c) Servere Acute Respiratory Syndrome
- d) Acquired Immuno Deficiency Syndrome

71. Outer layers of our skin is made up of dead cells which contain a protein called :

- a) globin
- b) serotonin
- c) valine
- d) keratin

72. Pupil is:

- a) the transparent covering which protects our eyes
- b) the tissue made of cells that are sensitive to different colours of the objects we see
- c) the opening through which the light reflected from the objects enters our eyes
- d) the nerve that carries the signals from eyes to the optical cortex of the brain
- 73. Study the items classified in the table given alongside. On what basis have the above items been classified?

X	Υ
Leftover Food	Plastic cup
Newspaper	Glass bottle
Vegetable peels	Aluminium cans

- a) X-Biodegradable, Y-Non-biodegradable
- b) X-Non-cyclable, Y-Cyclable
- c) X-Cause land pollution, Y-Do not cause land pollution
- d) X-Less toxic, Y-More toxic
- 74. Which of the following contains preservatives in it?









75. Land fills are most commonly used method of soil waste disposal. Which is the best place for landfill in a city?

- a) The centre of city
- b) Outside the city
- c) Near a hospital
- d) Near a partk

#### KEYTO MODEL PAPER - I

1. d	2. a	3. d	4. d	5. b	6. b
7. d	8. c	9. c	10. c	11. a	12. c
13. d	14. d	15. b	16. b	17. b	18. a
19. d	20. c	21. a	22. b	23. d	24. a
25. c	26. a	27. c	28. b	29. d	30. b
31. b	32. b	33. a	34. c	35. b	36. c
37. b	38. b	39. с	40. d	41. d	42. a
43. b	44. b	45. c	46. a	47. a	48. c
49. a	50. d	51. b	52. b	53. b	54. d
55. c	56. b	57. a	58. c	59. с	60. d
61. c	62. a	63. c	64. a	65. a	66. d
67. b	68. b	69. d	70. a	71. d	72. c
73. a	74. c	75. b			

#### SCIENCE & RESEARCH TEST-II

CODE:2162

#### **FINALS**

Max. Marks: 40 Duration: 60 Mins.

#### General Instructions:

- 1. Please find the separate Answer Sheets along with the question paper.
- Mention your Test Code, Student ID, Name, Class, Section, Contact no. and School Name on the Answer Sheet as per Question Paper and Hall Ticket.
- 3. This question paper contains V sections, duration is 60 minutes.
- 4. Please read the instructions carefully before attempting the question.
- 5. Answer questions in Answer Sheet only.
- 6. Don't write or tick anything on the question paper.
- 7. Use only Black or Blue Ball Point Pen to answer the question in Answer Sheet.
- 8. Submit only answer sheet(s) to the invigilator.

#### **SECTION - I**

 $10 \times 1 = 10m$ 

**DIRECTIONS:** (1 -10) – Each question contains statements given in two columns which have to be matched. Statements in column A have to be matched with statements in column B and write in the answer sheet

#### Column A

#### Column B

- Objects which emit their own light
   Straight line motion of light
   Luminous
   Lumar eclipse occurs on
   Solar eclipse occurs on
   Rectilinear propagation
  - of light

- 5. Materials that reflect all light E) Periodic event
- 6. A type of light scattering F) Transparent
- 7. Materials that transmits most of the lightG) Translucent
- 8. Materials that, transmitssome lightH) Opaque
- 9. An image of a mirror I) Regular reflection
- Time

   J) Diffuse reflection

  K) Non Periodic event
  - L) Irregular reflection

#### **SECTION - II**

 $10 \times 1 = 10m$ 

**DIRECTIONS**: (11-20) – Read the following statements and write your answer as true or false with reasons or solutions in the answer sheet.

- 11. An element can sometimes have two different types of atoms.
- 12. Silk is the strongest of all natural fibres.
- 13. Most gases are partially miscible with water.
- 14. Electric current can flow through metals.
- 15. Compass needle is nothing but a small magnet.
- 16. Scavengers are special type of carnivores that only eat dead animals.
- 17. Vitamins A,D,E and K are water soluble vitamins.
- 18. Sepal is the outermost whorl of the flower.
- 19. Brain controls our body movements.
- 20. Tendrils are found in cactus.

#### **SECTION - III**

 $10 \times 1 = 10m$ 

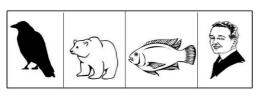
**DIRECTIONS:** (21 - 30) – Complete the following statements with an appropriate word/term to be written in the answer sheet.

21. Kelvin is a unit of \_\_\_\_\_.

21.	Science & Research Skills	Class : VI			
22.	The filament of bulb is made of				
23.	an alloy of aluminium, nickel and cobalt, is commonly used to make magnets.				
24.	Souring of milk is aChange.				
25.	The method of separation of constituents de their	pend upon			
26.	The smallest unit of a chemical compound is	·			
27.	is the cheapest and most extensively used r	natural fibre.			
28.	Movement is brought about by contraction and re	elaxation of			
29.	An organism's reaction to a stimulus is called a				
30.	are vast areas where grasses grow in abund	dance.			
	SECTION - IV 10	× 1 = 10m			
	ECTIONS: (31 - 40) – Identify the correct answer from and write in the answer sheet.	m the given			
31.	. Which of the following is not in periodic motion?				
	a) A fan moving at constant speed				
	b) A swinging pendulum				
	c) Rotation of earth				
	d) A flying kite				
32.	Study the following statements.				
	I. Moon is a luminuous body				
	II. An object that does not emit light is called non - luminous body.				
	III. Translucent bodies do not cast shadows.				
	IV. A ray of light is the path along which light travels	s.			
	Which of the given statements are correct?				
	a) I and II b) II and III c) I and IV d) I	l and IV			
	26				

33.	Which of the following does no	ot contain a magnet in it?			
	a) Torch	b) Radio			
	c) Fan	d) both b and c			
34.	In which of the following class of levers distance moved by load is greater than distance moved by the effort?				
	a) First class lever				
	b) Second class lever				
	c) Third class lever				
	d) Both first and second class	lever			
35.		ground while standing on a chair property of the material is Sonia			
	a) Flexibility	b) Strength			
	c) Hardness	d) Ability to float			
36.	Study the given statements-				
	I. Formation of water from hydchange.	drogen and oxygen is a physical			
	II. The bursting of a cracker is a fast chemical change.				
	III. Bending of a wire is only a	change in its size.			
	Which of the above stated statement is correct?				
	a) Only I	b) Only II			
	c) Only I and II	d) Only II and III			
37.	Sneha boiled a pot of water. When water boils, there will be a change in its				
	a) Temperature only.				
	b) Temperature and state only.	b) Temperature and state only.			
	c) State and colour only.				
	d) Temperature, state and colo	our only.			

38. The given figure illustrates various kind of animals. How many omnivores are there in the given figure?



- a) 1
- b) 2
- c) 3
- d) 4
- 39. Study the given statements below.
  - 1) Plant absorb their food from soil only.
  - 2) Plants utilize the energy from Sun and store it as starch.
  - 3) Animals can survive without plants but plants cannot survive without animals.

Which of the given statements is/are correct?

- a) Only statement (1) is correct
- b) Only statement (2) is correct
- c) Statements (1) and (2) are correct
- d) Statements (2) and (3) are correct
- 40. Which process is illustrated in given figure?



- a) Fertilization
- b) Pollination
- c) Photosynthesis
- d) Transpiration

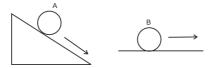
#### **SECTION - V**

 $10 \times 2 = 20$ m

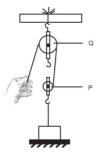
#### Answer the following Questions (41 - 50)

#### (Concept, Application, Skill based Questions)

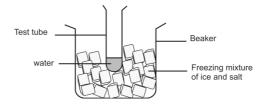
41. Two balls A and B are moving on slope and flat road respectively. How can you differentiate the motions of the two balls.



- 42. Does the shadow of moving train move at the same speed? Give reason.
- 43. Why should we not heat or hammer a magnet?
- 44. Sohan used a combined pulley system to lift a load, as shown in figure.
  - i) What type of pulley are p and Q.
  - ii) Differentiate P from Q.



45. Sanjana performed an activity. She placed a test tube of water in a beaker of salt and ice. What happened to water in the test tube after few minutes



- 46. It is difficult to hold a steel glass containing hot tea. Why?
- 47. Study the articles given in the box below and group them into three categories Plant source, animals source and synthetic.

Cotton	Terylene	Silk
Rayon	Wool	Jute
Polyster	Flax	Fur

- 48. After heavy thunderstorm and strong winds, some trees in the park stood firm. Why didn't these trees fall to the ground? Give reason.
- 49. In an activity, a plant and a statue is put into a box with a gap as shown in the diagram. It was found that the plant bends towards the gap where more light is present while there was no change in the statue. What does this experiment prove?





- 50. Organisms found in a particular habitat have changed or adapted themselves to survive there. Find out the meaning of the following term and explain with example, how these adaptations have helped the organisms to adapt their habitat.
  - A. Hibernation
- B. Migration
- C. Camouflage

#### **SOLUTIONS TO MODEL PAPER - II**

#### SECTION - I

#### Match the Following

- 1)  $\rightarrow$  B; 2)  $\rightarrow$  D;
- 3)  $\rightarrow$  A;
- 4)  $\rightarrow$  C;

- 5)  $\rightarrow$  H;
- 6)  $\rightarrow$  J;
- 7) → F:
- 8)  $\rightarrow$  G;

- 9)  $\rightarrow$  I;
- 10)  $\rightarrow$  E;

#### SECTION - II

#### True / False

- 11. False
- 12. True
- 13. True
- 14. True

- 15. True
- 16. True
- 17. False
- 18. True

- 19. True
- 20. False

#### SECTION - III

#### Fill in the Blanks

- 21. Temperature
- 22. tungsten
- 23. Alnico

- 24. chemical27. cotton
- 25. properties
- 26. molecule

- 30. Grass land
- 28. muscles
- 29. Response

#### SECTION - IV

#### **Multiple Choice Questions**

- 31. d
- 32. d
- 33. a
- 34. c

- 35. b
- 36. b
- 37. b
- 38. c

39. b

#### SECTION - V

#### Answer the following questions

41. Ball A has both rotational and translational motion. but ball B has only translational motion

- 42. Yes, train is an opaque object and cost a shadow where ever it goes. Thus the shadow moves with the train and with the same speed.
- 43. A magnet loses its magnetic property on heating harmneting. Therefore
- 44. P is movable pulley, Q is fixed pully

#### Movable Fixed 1. It enables less force with less 1. It does not reduce effort to over come a heavy load. effort 2. It moves with the load. 2. Itis fixed to a support 3. It does not change the 3. It changes the direction of effort direction of effort 4. Effort moves greater distance 4. Load and effort move than the load the same distance

- 45. The water in the test tube froze.
- 46. Because steel is a good conductor of heat, and conducts heat to out hand
- 47. Plant source -cotton, jute, flax. Synthetic Terylene, Polyester, Rayon. Animal source -silk, wool, fur
- 48. The roots of a tree hold the tree firmly to the ground Hence ...
- 49. This shows that plants respond to stimuli,hence living thing. statue non living.
- 50. <u>Hibernation:</u>- The period of reduced activity in some animals during winter months is known as hibernation. The animal such as frog, squirrel, bear etc reduce the their activities during, winter as to avoid the extremely cold conditions. During this period (winter), animal is metabolically inactive.

<u>Migration:</u> - The seasonal movement of animals from one region to another is known as migration. Animals such as birds and fish move from one region to another in response to climatic changes.

<u>Camouflage:</u>- The ability of an animal to blend in with its surroundings is known as camouflage. Such animals change their shape or colour to match their surroundings, which makes them harder to spot. For example, leaf insects and stick insects, or a chameleon adopt camouflage to escape their hunters.