**Page no-**1

1 a yam b sugarcane c orange d rock e cauliflower f potato

2 1- e 2- a 3 –d 4 –c 5- b

**Page no-**2

(1) Stems-sugarcane, bulbs-onion, spores fungi leaves fern

(2) A-wings/Air, B-Feather/Air

**Page no**-3

1. viviparous, 4-5

2. oviparous,100-200

3. oviparous, 2-3

4.viviparous, 01

5. oviparous, 2-3

**Page no-**4

1 animals 2 water 3 water 4 explosion

**Page no-**5

1 1 ferns,mosses 2 nitrogen,phosphate 3 maize,rice

4 ginger, potato 5 pine, cedar

2 1 vegetative propagation 2 hooks, spines

3 pesticides 4 loam, sandy 5 agriculture

**Page no-**6

1 –b 2- d 3- c 4- b 5- a

**Page no-**7

1 khariff 2 rabi 3 rotation 4 irrigation 5 pesticides 6 rodents 7 scarecrows 8 fertilizers 9 water 10 lady- bird

**Page no-**8

3,6,1,4,2,5

 **Page no-**9

1 root,tubers 2 monocots 3 dicots 4 cotyledons 5 seed dispersal

**Page no-**10

1 mosses, liverworts 2 ginger, potatoes 3 rosemarry, mint 4 otato, onion 5 bryophyllum, kalanchoe 6 corn, wheat 7 peas, almonds 8 dandelions,cottonwood 9 cucumbers, touch me not 10 rhizophonaceae, seabeat

**Page no-**11

Take two containers. Keep moist cotton and soaked beans on it. Keep one container in area where sunlight is in abundance. Another one to be kept in dark area. Keep on sprinkling water on both. This setup will help us to know that seeds need sunlight to germinate faster.

**Page no-**12

A 1- c 2- a 3 – b 4-d

B 1 dandelion 2 seed 3 water 4 poppy fruit 5 seed dispersal

**Page no-**13

1. By adding humus, making it airy and loose, following crop rotation.

2. a. Using biocides

b. making boundry around cropfield

c. making scare crow

3. Air, water, sunlight, soil

4. to reach ot far off places where germination is easy.

**Page no-**14

1 ploughing 2 sowing 3 watering 4 fertilizing 5 harvesting 6 storing

**Page no-**15

(A)

1.All seeds of a plant do not grow into new plants because some seeds get damaged by natural processes, other organisms or get rotten.

2. To ensure there is no moisture. As moisture spoils the grains an fun gills is spread.

3. Dispersal of seeds are important to have safe and suitable place to grow.

4. it died as it was not exposed to sunlight which is needed to make food in the plant.

**Page no-**16

1- d 2- b 3- d 4- a 5-d

**Page no-**17

(1)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mammal | Reptile | Fish | Awphibion | Bird |
| Bat | Turtle | Pomfret | Toad | Eagle |
| Giraffe | Python | Shark |  | Kiwi |
| Whale | Cobra |  |  | Swallow |
| Sheep | Crocodile |  |  | Dove |

(2) Do it yourself

**Page no-**18

(1)

a. sea snakes

b. elephant

c. eagle

d. quail

e. walrus

f. mayflies

g. sand hoppers

(2)

butterfly-insect-herbivore-terrestrial

frog-amphibian-herbivore-amphibian

whale-mammal-carnivore-aquatic

giraffe-mammal-herbivore-terrestrial

tortoise-reptile-herbivore-terrestrial

snake-reptile-carnivore-terrestrial

parrot-bird-herbivore-asborial

 **Page no-**19

Q1 1. cell membrane 2. carbohydrates 3. spiracles 4.gills 5.operculum 6. artrey 7. claw

Q2 1- b 2 – c 3-a

Q3

1. Grazing,

2.amphibions,

3.habitat,

4.locust,

5.carnivores

**Page no-**20 Do it yourself

**Page no-**21

1 insulates the body against cold, white fox

2 to conserve water, camel

3 it receives oxygen, fish

**Page no-**22,

(1)

a. skull, ribcage, backbone, wrist, joint

b. ribcage protect heart and lungs and skull protects brian.

(2) label the skeleton-



**Page no** 23

Butterfly-No, Lion-Yes, Whale-No, Rat-Yes, Crane-Yes, Lady bird-No, Scorpion-No, Dog-Yes, House fly-No

**Page no-**24

(I) 1 voluntary muscles 2 involuntary muscles 3 humerus 4 femur

5 fourteen bones

(II) 1 vertebrate coulumn 2 last two pairs 3 joint 4 tendons 5 cardiac 6 ligaments 7 costae 8 collagen

**Page no-**25

1 mouth 2 bolus 3 oesophagus 4 stomach 5 intestines 6 anus

**Page no-**26

(I)

1.Diges-Digest-nutrients,

2.Respi-respirat-oxygen an nutrients,

3.Circu-circula-breath in air

4.Excr-excreator-waste materials

(II)

1.Respiratory system

2.Circulatory system

3.Digestive system

4.Excretory system

**Page no** 27

Q 1 a heart b stomach c brain d bones e muscles f lungs

**Page no** 28

1 a (ii) b (i) c (i) d (i)

2 1-e 2- c 3- b 4- d 5 –a

**Page no** 29

I 1 neurons 2 skull 3 brain, spinal cord , nerves 4 optic nerve 5 endoskeletons

II 1 mixed nerves 2 cerebrum 3 medulla 4 iris 5 cerebrum

**Page no** 30

I 1true 2 true 3 false 4 true 5 true

II 1 motor, sensory, mixed 2 tongue 3 gustatory cells 4 skin 5 ciliary muscle

**Page no** 31

1 basic and functional unit of life 2 group of cells 3 group of tissues performing specific function 4 bony structure forming head 5 articulatin between two bones 6 soft tissue contain proteins

**Page no** 32

Balanced , healthy food habits, non-communicable , hygiene, nails ,wash, soap, apple, exercise

**Page no** 33

A 1 206 2 8 3 14 4 33 5 12

B 1- e 2 –c 3 -f 4 –b 5 –d 6- a

**Page no** 34 Do it yourself

**Page no** 35 1- Do it yourself

2 1 non striated muscles 2 voluntary muscle 3 it pulls on both its origin and insertion 4 striated muscle 5 tendons

**Page no** 36

2 a medulla oblongata b skull c skin d ball and socket joint e cerebrum

f motor nerves

**Page no** 37

(1) 1 –C 2 -D 3-A 4-B

(2) ………………………….???

**Page no** 38

(I) 1 balanced diet 2 deficiency 3 bacteria 4 Edward

 Jenner 5 virus 6 bacteria

(II)……………..??

**Page no** 39

1, 2 Do it yourself

3 a –false b-true c - false d- false e – false f- true

**Page no** 40

1 A night blindness B vitamin A defiency C green vegetables,fish

2 ventilation helps keep a home energy-efficient, safe and healthy

**Page no** 41

a fats b minerals c calcium e water f protein g vitamins h carbohydrates

**Page no** 42 Do it yourself

**Page no** 43

1 d 2 c 3 c 4 d

2 1 vitamin s 2 protein 3 exercise

**Page no** 44

(1) a rice ,bread b milk, cheese c fruits, vegetables d carrot,radish

(2) a seafood, green vegetables, dry fruit

b to stop the spread of germs

(3) a iron b calcium c vitamin A d vitamin D E vitamin 12

**Page no** 45

I 1 food 2 organisms 3 Diphteria Pertussis Tetanus 4 one year

5 worms 6 bacteria 7 goitre

2 Do it yourself

**Page no** 46

1 a germs b communicable disease c epidemic d night blindness e vitamins and minerals f balanced diet

2 a it increases weight and reduce bone strength

b it provides strength to bones and teeth

c it effects more

**Page-47**

1. Do it yourself.

2. The labourer is involved in daily physical activities so he need more energy while children need to have more proteins because protein maintain vital tissues.

**Page-48**

A) 1. Energy, 2. Muscles, 3. Store, 4. Strong, 5. Minerals,

 6. Eyes, 7. Sick, 8. Bones, 9. Water, 10. Balanced

**Page-49** Do it yourself.

**Page-50** 1 (c), 2(a), 3(d), 4(a), 5(d)

**Page-51**  1- Do it yourself.

2- R L O

 Glass Butter paper Leaf

Plastic sheet Lemon juice milk packet

 Dirty water Mobile phone

 Mud

 Steel glass

 Air

 Wooden door

**Page-52 (I)** 1- Six, 2-B/w load & Effort, 3- ,

 4-Wedge, 5-Equal

**(II)** 1-Seesaw, top of hammer, 2-Seesaw, crowbar,3-fishing rod, cricket bat,4-spiral,5-Pulley,6-less,7-More, 8-Bouyant

**Page-53** PUSH PUSH

 PULL PULL

 PULL PULL

 PUSH PUSH

 PULL PUSH

**Page-54 (1)** (1) 1 **(2)** Do it yourself

(2) 3

(3) 6

(4) 2

(5) 5

(6) 4

**Page-55** (1) b

(2) a

(3) b

(4) b

(5) b

(6) b

**Page-56** (1) friction

(2) machine

(3) gravity

(4) balanced

(5) time

(6) Enertia

(7) pull

(8) Pulling

(9) Newton’s

(10) friction

**Page-57 (I)**

(1) screw lever pulley

(2) first class second third

(3) apples word spanges

(4) honey store iron

(5) mobile calculator washing

 m/c

**(II)**

(1) A, (2) C, (3) A

**Page-58**

(a) x

(b) ✓

 (c) x

 (d) ✓

**Page-59**

**(I)**

(1) To provide enough energy to meet our needs.

(2) Solar, wind, hydro, Tidas, Geothermal

**(II)** Nuclear, wind, Heat, sound, light

**Page-60**

**Page-61**

PUSH (I)

(1) Squeazing wet clothes

(2) Closing a door

(3) Moving object across a plans

(4) Inserting a bell pin to file paper together

(5) Inserting a plug into a socket

PULL (II)

(1) Open the door

(2) Pulling up our pants

(3) Picking up glass of water

(4) Magnet pulling metal sharing towards itself

(5) When a dog pulls on its leash

**Page-62** (a) Red

(b) Red

(c) Blue

(d) Blue

(f) Red

**Page-63,64,65,66,67,68 ……????**

**Page-69** (1) True

(2) False

(3) True

(4) False

(5) True

(6) False

(7) True

(8) True

**Page-70** Do it yourself.

**Page-71** Do it yourself.

**Page-72** (1) Apply calamine lotion (2) Do it yourself

(1) First remove the dirt tie a bandage

(2) clean with the small pads of cotton roaked in an antiseftic lotion

(3) Do it yourself

**Page-73** (1) Liquefied petroleum gas. (2) For safety

 (3) for turning on & off the gas pressure

**Page-74** Do it yourself

**Page-75** Do it yourself

**Page-76** Do it yourself

**Page-77** (1) Biodegradable

 (2) Biodegradable

 (3) Non Biodegradable

 (4) Non Biodegradable

 (5) Biodegradable

**Page-78** (1) The action of making the air, water, etc dirty and dangerous. Types of pollution-Air pollution, water pollution, Soil pollution, Noise pollution

 (2) Overpopulation, burning fussil fuels, deforestation

 (3) Discharge of domestic & industrial wastes marine dumping.

**Page-79**

**(I)**

(1) To keep away pests & weeds from the crop

(2) Affecting the world

(3) crisis of the world

(4) can save the environment

(5) can save the environment

**(II)**

(1) solar energy, wind energy

(2) high blood pressure, stress

(3) Cholera, typhood

(4) Asthma, Lung cancer

 (5) Water, air

 (6) Vehicles, factories

**Page-80** (1) B

(2) D

(3) D

(4) A

**Page-81** Do it yourself

**Page-82** Do it yourself

**Page-83**

**(I)**

(1) intermolecular space

(2) solids, liquids, gas

(3) atoms

(4) solvent

(5) solute

(6) solution

**(II)**

(1) Physical change

(2) Physical change

(3) Chemical change

(4) Chemical chagne

**Page-84**

**(I)**

(1) water

(2) 71%

(3) Rain water

(4) Distillate

(5) filtrate

**(II)**

(1) Food

(2) impurities

(3) Distillation

(4) filtration

(5) Chlorine gas

**Page-85** Do it yourself

**Page-86** Do it yourself

**Page-87**

**(I)**

(1) Filtration, Insoluble

(2) Distillation, Soluble

(3) Evaporation, Soluble

(4) Filtration, Insoluble

**(II)**

(1) Chlorine

(2) Nitrogen

(3) Potable

**Page-88**

(1) Repel

(2) Attract

(3) Attract

(4) Repel

(5) Attract

**Page-89** Do it yourself

**Page-90**

(1) Solar eclipse- Solar eclipse occure when moon gets lecturen Earth and the sun.

(2) (a) Moon, (b) Eclipse, (c) Eilbous moon, (d) Partial Ecipse

**Page-91**

(1) Do it yourself.

(2) Leenar Eclipse happens at the opposite moon phase.

(3) (a) Solar Eclipse accurs in new moon phase white lunar Eclipse occur in full moon phase.

 (b) In Solar Eclipse moon in between of Sun an Earth white in lunar earth between Sun and moon.

 (c) Solar eclipse during day time. Lunar eclipse occurs during night time.

**Page-92**

**(A)**

(1) Because wall is and opaque object

(2) Because speed o light is more than the speed of

 sound.

**Page-93**

**(I)**

(1)Craters, (2) Moon, (3) 1/6th, (4) Orbit,

(5) Rakesh Sharma, (6) Moon

**(II)**

(1) Solar Eclipse

(2) Space or orter space

(3) Phases

(4) Honmann transfer orbit

(5) GSLV

**Page-94**

Mirror, glasses, laptop

**T O**

Glasses bear

Clear bottle mirror

Magnifying glass laptop

 Socks

 Safety belt

 Tree

 Tennis ball

 Book

**Page-95**

**NL AL**

Sun Torch

Candle Headlights

Fire Lamp

Thunder

Star

**Page-96**

1. Solar Eclipse happens with to new moon comes b/w the sun eg earth & blocks out the sun rays.

2.

**Total Partial**

When the disk of the moon Not blocked completely Blocks 100% of the solar disk. 100%

3. Due to atmospheric refracitn

**Page-97**

(1) cosmonart valery polyakov

(2) the moon

(3) Rakesh Sharma

(4) Blue moon

(5) Lunar phase

(6) full moon

(7) 18 JULY 1980

(8) Apollo 11

(9) 10 Kg

(10) Outes space/ green house effect

**Page-98**

 Plant Satell Star

1 ✓

2 ✓

3 ✓

4 ✓

5 ✓

6 ✓

**Page-99**

(1) 50x0.38=19

(2) 50x0.9=45

(3) 50x0.17=8.5

(4) 50x0.38=19

(5) 50x2.34=117

**Page-100**

(1) New moon

(2) Crescent after new moon

(3) Waning phase of the moon

(4) Full moon

(5) Waning phase of moon