

PLANTS

Tick (✓) the correct answer

- Which of the following do plants need to make food?**
 - Oxygen
 - Seeds
 - Soil
 - Sunlight
- Which part makes food for a plant?**
 - Flowers
 - Roots
 - Leaves
 - Stem
- Which part of a plant takes in water and nutrients from the soil?**
 - Roots
 - Leaves
 - Stems
 - Flowers
- The flat part of the leaf is called the**
 - Side veins
 - Mid rib
 - Vein
 - Leaf blade
- The part of the plant which holds the plant firmly in the soil is the**
 - Flower
 - Roots
 - Stem
 - Leaf
- Which of the following is the reproductive part of the plant?**
 - Flower
 - Stem
 - Root
 - Leaves
- Which part of the plant is the cabbage?**
 - Flower
 - Root
 - Leaf
 - All of the above
- What is the thick part of a tree called which grows above the ground?**
 - Branch
 - Trunk
 - Tendrils
 - Shoot
- Which of the following is NOT a function of leaves?**
 - Preparing food
 - Providing food for us
 - Transporting water
 - Helping the plant to respire

- Which of the following is NOT a function of plants?**
 - Providing oxygen in the environment
 - Giving food and shelter
 - Helping other living creatures
 - Helping animals to move freely
- Which of the following things can a plant live without?**
 - Fertilizer
 - Oxygen
 - Water
 - Warmth

Fill in the blanks by choosing the correct words.

germinate	life cycle	seed	trunk
climber	roots	air	water
sunlight			

- Most plants grow from a _____.
- A tree has a woody stem called a _____.
- _____ absorb water and minerals from soil.
- The grapevine plant grows around some support. It is a _____.
- Plants need _____, _____ and _____ to grow.
- Match each term in Column B with its meaning in Column A.**

Column A	Column B
i. The first stage of life for many plants	A. stem
ii. The food factory in a plant	B. seed
iii. The plant part that connects the root to leaves	C. fibrous roots
iv. The part of a plant that grows underground	D. tap root
v. One main root with small stems	E. leaf
vi. Many small roots growing from the end of the stem	F. root

ANIMAL LIFE

Tick (✓) the correct answer

1. Which of the following is a herbivore?

- a. Lion b. Deer
c. Mice d. Fox

2. Humans are

- a. Herbivores b. Carnivores
c. Producers d. Omnivores

3. The diagram that shows how energy is used in the food chain is known as the

- a. Food web b. Energy circle
c. Energy pyramid d. Energy chain

4. The correct sequence of the given organisms in a food chain is:

- i. Grass Hopper ii. Cat iii. Grass iv. Bird
a. i → ii → iii → iv
b. iii → iv → i → ii
c. iii → i → iv → ii
d. ii → iv → i → iii

5. An interlinked food chain is called the

- a. Food pyramid b. Energy web
c. Energy pyramid d. Food web

6. Which of the following is not a decomposer?

- a. Bacteria b. Fungi
c. Rabbit d. Earthworm

7. The incorrect statement is:

- a. Plants use sunlight as source of energy to prepare their food.
b. Plants do not store the food prepared, but use up all of it themselves.
c. Last level of energy pyramid includes carnivores.
d. All the levels of a food chain are equally important.

8. A food web will not be affected by

- a. an increase in plants.
b. an increase in herbivores.
c. a sunny day.
d. a decrease in carnivores.

9. The organism that would lie at the top of energy pyramid is a

- a. Hawk b. Rabbit
c. Grass d. Carrot

10. The largest group in the energy pyramid

- a. lies at the top of the pyramid.
b. lies at the bottom of the pyramid.
c. all the groups are equal in size.
d. lies in between.

11. An animal with sharp and flat teeth that eats grass is probably a

- a. Carnivore b. Herbivore
c. Omnivore d. Insectivore

12. Frogs use their long and sticky tongue to

- a. Climb on the trees b. Swim in the water
c. Catch the prey d. Chew their food

Fill in the blanks by choosing the correct words.

consumers, photosynthesis, carnivores, decomposers, herbivores, omnivores, producers, webbed

13. Organisms that depend on both plants and animals for their food: _____.

14. Animals that eat the flesh of other animals: _____.

15. Organisms that cannot make their own food and depend upon others for it: _____.

16. Animals that eat only plants: _____.

17. Organisms that make their own food: _____.

18. The process of preparing food by the green plants with the help of sunlight and oxygen: _____.

19. Micro organisms that break down dead complex matter into simple substance _____.

20. The _____ feet of ducks help them in swimming.

FEATHERED FRIENDS

Tick (✓) the correct answer

1. **Which of the following is a bird that cannot fly?**
 - a. Goose
 - b. Ostrich
 - c. Swan
 - d. Hummingbird
 2. **Which of the following is warm blooded?**
 - a. Eagle
 - b. Frog
 - c. Snake
 - d. Crocodile
 3. **Which is true of all birds?**
 - a. They all can swim
 - b. They all hatch from eggs
 - c. They all build nests
 - d. They all can fly
 4. **In what way are birds different from other vertebrates?**
 - a. They lay eggs
 - b. They are colourful
 - c. They have feathers and wings
 - d. They are warm blooded
 5. **Which of the following features does not help birds to fly?**
 - a. Their heart beats very fast
 - b. They have air sacs that store oxygen
 - c. They have hollow bones
 - d. They build nests
 6. **Birds use their beaks for**
 - a. Feeding their young ones
 - b. Preening
 - c. Having food
 - d. All of the above activities
 7. **Which of the following is not a function of feathers in birds?**
 - a. Giving shape to the birds' bodies
 - b. Keeping the birds warm
 - c. Helping the birds camouflage themselves
 - d. Helping the birds to fly
 8. **What is a bird with long, sharp beak most likely to eat?**
 - a. Insects
 - b. Meat
 - c. Seeds
 - d. Fruits
 9. **From which of the following did the feathers of birds evolve?**
 - a. Hair
 - b. Wings
 - c. Scales
 - d. Back bone
 10. **Which class of organisms is covered with scales?**
 - a. Reptiles
 - b. Birds
 - c. Amphibians
 - d. Humans
 11. **In what temperature range do birds maintain their body temperature?**
 - a. 40°C – 44°C
 - b. 0°C – 5°C
 - c. 20°C – 24°C
 - d. 10°C – 111°C
 12. **Which of the following is an adaptation of birds that help them fly?**
 - a. Feathers
 - b. Light weight bones
 - c. Large chest muscles
 - d. All of these
- Fill in the blanks by choosing the correct words.**
feathers, metabolic rate, flippers, backbone, fins, streamlined, vertebrates, preen, curved, warm-blooded, insects
13. **The wings of birds are _____ ; this helps them fly easily.**
 14. **Birds are _____, since they have constant body temperature.**
 15. **Birds _____, or run their beaks through their feathers to maintain their feathers.**
 16. **Birds, like reptiles, have a skull and a _____ and hence are called _____.**
 17. **The high _____ in birds provides them extra energy to stay active.**
 18. **What distinguishes the class of birds from other organisms is that they have _____.**
 19. **In penguins the wings are modified into _____, which help them to swim.**
 20. **A bird with a cracker type beak will eat _____.**

THE HUMAN BODY

Tick (✓) the correct answer

- Which of the following organ systems converts food into a usable form?**
 - Excretory system
 - Nervous system
 - Digestive system
 - Reproductive system
- When we breathe in, the air from the nose goes to the**
 - Lungs
 - Heart
 - Liver
 - Stomach
- Which of the following organ systems gives form, shape and support to our body?**
 - Digestive system
 - Muscular system
 - Excretory system
 - Skeletal system
- Which of the following organ systems helps our body to move, work and play?**
 - Muscular system
 - Digestive system
 - Circulatory system
 - Nervous system
- The skin removes waste from the body in the form of**
 - Blood
 - Mucus
 - Sweat
 - Air
- Which of the following helps the body to move, along with bones?**
 - Nerves
 - Muscles
 - Blood vessels
 - Blood
- The nerves receive and carry messages from different parts of the body to the**
 - Heart
 - Lungs
 - Liver
 - Brain
- Which of the following organs helps in removing waste from the body?**
 - Kidneys
 - Stomach
 - Nose
 - Heart

- Which of the following organs is a part of the digestive system?**
 - Bone
 - Nose
 - Large intestine
 - Lungs
- Which of the following organs is a part of the nervous system?**
 - Kidney
 - Stomach
 - Intestine
 - Brain
- What do humans take in during breathing?**
 - Carbon dioxide
 - Sugar
 - Oxygen
 - Water
- Which of the following is a function of the heart?**
 - Pumping blood
 - Secreting hormones
 - Giving a definite shape to the body
 - Carrying messages to the brain

Fill in the blanks by choosing the correct words.

heart	brain	organs	carbon dioxide
kidneys	system	nose	

- _____ are the organs of the excretory system.
- Different _____ join together to form a _____.
- We inhale air through the _____.
- Humans give out _____ during exhalation.

Match each term in Column B with its related organ system in Column A.

Column A	Column B
17. Respiratory system	A. Brain
18. Nervous system	B. Lungs
19. Excretory system	C. Stomach
20. Digestive system	D. Kidneys

AMAZING ANIMALS

Tick (✓) the correct answer

1. **Which of the following is the link between birds and dinosaurs?**
 - a. Archaeopteryx
 - b. Triceratops
 - c. Ostrich
 - d. Platypus

2. **The birds incubate their eggs to**
 - a. Protect them from predator
 - b. Keep them warm
 - c. To provide them optimum temperature for hatching
 - d. All of the above

3. **Which one of the following is an adaptation of polar animals?**
 - a. Thick insulating fur
 - b. Big eye lashes
 - c. Humped back
 - d. Compound eyes

4. **The wings in penguins are modified into**
 - a. Flippers
 - b. Fins
 - c. Feathers
 - d. Skin

5. **The different stages of insect development can be represented as**
 - a. Eggs → pupae → larvae → adult
 - b. Eggs → larvae → pupae → adult
 - c. Eggs → larvae → moth → pupae → adult
 - d. Eggs → pupae → moth → larvae → adult

6. **The dinosaurs are closely connected to**
 - a. Mammals
 - b. Birds
 - c. Reptiles and mammals
 - d. Human beings

7. **The white fur coat of arctic animals provides**
 - a. large surface for breathing.
 - b. insulation and camouflage.
 - c. help in finding food.
 - d. help in reproduction.

8. **A marshy woody area is inhabited by colonies of ant in a rainforest. This area is called**
 - a. Ecosystem
 - b. Biome
 - c. Dwelling place
 - d. Habitat

9. **The opening and closing of stomata is regulated by**
 - a. Loss of water through transpiration
 - b. Amount of oxygen present in air
 - c. Amount of oxygen produced by the plant
 - d. Amount of water vapour present in the atmosphere

10. **In a dense rainforest, the small flowering plants produce flowers during**
 - a. Spring
 - b. Summer
 - c. Winter
 - d. Rain

11. **If from the following food chain, the producer is removed, what will happen?**
 Leaves Caterpillar/Insects Small birds Owls
 - a. Population of owls will increase rapidly
 - b. Population of insects will decrease
 - c. All consumers will be affected
 - d. The birds will migrate

12. **Which of the following do not hibernate?**
 - a. Frogs
 - b. Lizards
 - c. Bear
 - d. Polar bear

Match the following animals in Column A with their characteristics in column B:

Column A	Column B
13. Siberian crane	a. Nocturnal and carnivores
14. Bats	b. Migratory bird
15. Chimpanzees and monkeys	c. Generally found in grasslands
16. Whales	d. Have mammary glands
	e. Have air bladder

Write the habitats for the following animals:

17. **Sea Lion** _____
18. **Deer** _____
19. **Camel** _____
20. **Emperor penguin** _____

PLANT REPRODUCTION, GERMINATION AND GROWTH

Tick (✓) the correct answer

1. **Which of these is not required by a plant to live?**
a. Carbon dioxide c. Water
b. Sunlight d. Fungicide
 2. **What is the chemical used to prevent plants from harmful insects known as?**
a. Fungicide c. Fertilizers
b. Pesticide d. Manure
 3. **Which of the following is not an agent of seed dispersal?**
a. Water c. Air
b. Soil d. Animals
 4. **Which of the following seeds is dispersed by the mechanism of explosion?**
a. Apple c. Lotus
b. Cherry d. Bean
 5. **Which of the following seeds has wings?**
a. Lotus c. Poppy
b. Pea d. Dandelion
 6. **Which of the following is not a part of seed structure?**
a. Plumule c. Cotyledon
b. Radicle d. Stigma
 7. **After fertilization, what does an ovary transform into?**
a. Flower c. Pollen tube
b. Fruit d. Ovules
 8. **What is the green leaf like structure present at the base of flower known as?**
a. Petals c. Stamen
b. Sepals d. Anther
 9. **Which of the following parts of the flower comprise the pistil?**
a. Style, stigma, filament, ovary
b. Filament, anther, pollen grains, pollen tubes
c. Style, stigma, ovary, ovules
d. Filament, anther, ovary, ovules
 10. **Which of the following plants cannot be grown using its roots?**
a. Sweet potato
b. Dahlia
c. Turnip
d. Hibiscus
 11. **Which of the following plants is grown using its stem?**
a. Money plant
b. Mushroom
c. Carrot
d. Cotton
 12. **What is manure?**
a. It is the fertilizer obtained from organic waste.
b. It is the chemical used to kill insects.
c. It is the chemical used to kill microorganisms
d. It is a type of chemical fertilizer.
- Give one word for the following statements.**
- kharif, bean, germination, stamen, pollination, vegetative propagation, pepper, seed coat, dispersal*
13. **Crops that grow in summer:** _____
 14. **Male part of the flower:** _____
 15. **The process of transfer of pollen grains from the anther to the stigma of a flower:** _____
 16. **The process by which seeds are scattered away from the parent plant:** _____
 17. **The process by which a seed changes into a seedling:** _____
 18. **Method of growing plants from roots, stem and leaves:** _____
 19. **The outer covering that protects the baby plant inside the seed:** _____
 20. _____ flowers are pink and _____ flowers look like stars

THE SKELETAL SYSTEM

Tick (✓) the correct answer

1. **The place where bones meet is called**
 - a. A ligament
 - b. A joint
 - c. Cartilage
 - d. The rib cage
2. **The bones in the spinal cord are called**
 - a. Little bones
 - b. Cartilage
 - c. Vertebrae
 - d. Ribs
3. **The liver, heart and lungs are protected by the**
 - a. Skull
 - b. Girdles
 - c. Ribcage
 - d. Spinal cord
4. **Which of the following joints is present in the hip and the shoulder?**
 - a. Ball and socket joint
 - b. Hinge joint
 - c. Pivot
 - d. Gliding joint
5. **How many pairs of ribs are found in the human body?**
 - a. 8 pairs
 - b. 10 pairs
 - c. 15 pairs
 - d. 12 pairs
6. **Which is the smallest bone in our body?**
 - a. Femur
 - b. Tibia
 - c. Fibula
 - d. Stirrup
7. **The number of bones that make up the human skull is**
 - a. 45
 - b. 52
 - c. 32
 - d. 22
8. **The lowest two pairs of ribs which are joined only to the backbone are called**
 - a. Floating ribs
 - b. True ribs
 - c. False ribs
 - d. Fixed ribs
9. **The strong tissues that bind the bones at a joint are called**
 - a. Cartilage
 - b. Tissues
 - c. Ligaments
 - d. Tendons
10. **All the bones of the human skull are fixed, except the**
 - a. Upper jaw
 - b. Lower jaw
 - c. Frontal bone
 - d. Nasal bone
11. **The joint found between the skull and the first two vertebrae of the spine is**
 - a. The gliding joint
 - b. The hinge joint
 - c. The ball and socket joint
 - d. The pivot joint
12. **Which of the following is a function of the skeletal system?**
 - a. It gives shape and support to the body
 - b. It circulates blood in the body
 - c. It carries messages to brain
 - d. It secretes hormones

Fill in the blanks by choosing the correct terms.

bone marrow, brain, vertebrae, sternum, femur, spinal cord, skeleton, hinge

13. **The _____ protects the inner organs of the body.**
14. **The _____ is protected by the backbone.**
15. **The thigh bone or _____ is the longest bone in the body.**
16. **The knee joint is a _____ joint.**
17. **A long bone at the centre of the chest is called the _____.**
18. **The skull protects the _____.**
19. **The hollow bones of the body are filled with a jelly-like substance called _____.**
20. **The backbone is made up of a series of small bones called _____.**

THE NERVOUS SYSTEM

Tick (✓) the correct answer

- The system that controls everything that we do is the**
 - Endocrine system
 - Respiratory system
 - Nervous system
 - Digestive system
- The nervous system consists of the**
 - Brain, heart and spinal cord
 - Heart, spinal cord and nerves
 - Brain, heart and nerves
 - Brain, spinal cord and nerves
- The organ of the body that is the control centre of the nervous system is the**
 - Brain
 - Liver
 - Heart
 - Stomach
- The nerves that carry messages from the brain are**
 - Motor nerves
 - Messenger nerves
 - Relay nerves
 - Sensory nerves
- We can think, learn, remember and recall because of the**
 - Medulla oblongata
 - Cerebrum
 - Cerebellum
 - Sense organs
- Nerves that carry messages to the brain and bring orders from the brain are**
 - Sensory nerves
 - Optic nerves
 - Motor nerves
 - Mixed nerves
- Which of the following connects the brain to the rest of the body?**
 - Brain
 - Spinal cord
 - Muscles
 - Ligaments
- Which of the following actions are controlled by the spinal cord?**
 - Reading
 - Running
 - Walking
 - Blinking
- Nerves that carry impulses to the brain are**
 - Motor nerves
 - Sensory nerves
 - Mixed nerves
 - Optic nerves

- Our brain needs a continuous supply of blood and what else?**
 - Oxygen
 - Water
 - Carbon dioxide
 - Food

Fill in the blanks by choosing the correct terms.

motor, medulla, sensory, brain, cerebrum, mixed, nerves, cerebellum, sensory nerves, reflex action, sense, skin

- _____ pass through the spinal cord and carry messages to the _____.
- The _____ controls the heartbeat, breathing, swallowing and sneezing.
- The _____ helps us to detect heat, cold and pain.
- A network of _____ runs throughout our body.
- _____ is the largest part of the human brain.
- The organs which connect us to the outside world are known as _____ organs.
- The automatic response of the body to an event is called a _____.
- The _____ is responsible for muscle coordination and maintaining the balance of the body.
- The three types of nerves are _____, _____ and _____.
- Label the three sections of the brain in the below diagram.



ON THE TRAIL OF THE EARLIEST PEOPLE

(HISTORY)

Tick (✓) the correct answer

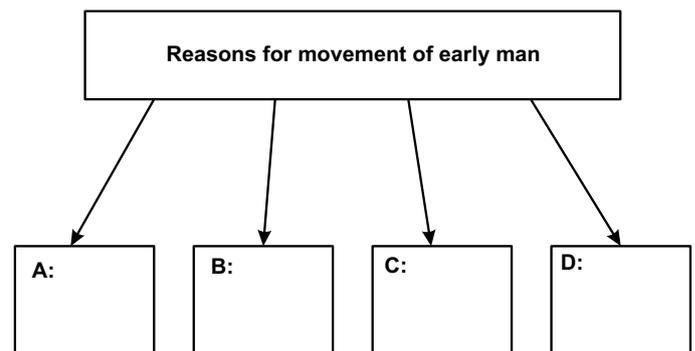
1. **The transition of man from ape-like creatures to human form is called**
 - a. Creation
 - b. Development
 - c. Evolution
 - d. Advancement
2. **Which one of the following proposed the theory of Natural Selection?**
 - a. James Mill
 - b. Hermann Miemer
 - c. Herbert Garner
 - d. Charles Darwin
3. **In 1974 A.D. where did archaeologists discover partial skeletons of human like creatures?**
 - a. Egypt
 - b. Palestine
 - c. Syria
 - d. Ethopia
4. **Which of the following was the most important function of the opposable thumb?**
 - a. Easy cutting
 - b. Easy grasp
 - c. Easy protection
 - d. Easy adaption
5. **During which age did the discovery of fire and emergence of prehistoric art take place?**
 - a. Palaeolithic age
 - b. Mesolithic age
 - c. Neolithic age
 - d. Chalcolithic age
6. **The transition from food gatherer to food producer and settling down, marks the beginning of the**
 - a. Palaeolithic age
 - b. Mesolithic age
 - c. Neolithic age
 - d. Chalcolithic age
7. **What does Mesolithic mean?**
 - a. Copper Age
 - b. Middle Stone Age
 - c. Old Stone Age
 - d. Early Stone Age
8. **What did early man use to paint the walls of caves?**
 - a. Ink
 - b. Charcoal
 - c. Paint
 - d. Clay

9. **Which of the following is characteristic and shows evolution of early man?**
 - a. Increase in the size of the brain
 - b. Increase in sizes of houses
 - c. Increase in animal flock
 - d. None of the above
10. **Why did early man move from one place to another?**
 - a. In search of houses
 - b. In search of food
 - c. In search of grasslands
 - d. All of these
11. **A scientist who studies humanity and human culture is called**
 - a. Archaeologist
 - b. Anthropologist
 - c. Sociologist
 - d. Afrologist
12. **Which of the following stone tools were used in the Palaeolithic age?**
 - a. Core and flake tools
 - b. Core and microliths
 - c. Core and Blake tools
 - d. Core and flint

Fill in the blanks using a suitable word:

Kurnool, Dolphins, Migration, Bhimbetka, Hunsgi

13. **Ash is found in _____ in Southern India.**
14. _____ and _____ are the earliest human settlements in India.
15. **Studies suggest that the _____ also used tools.**
16. **The early human groups followed animal _____.**
17. **Fill the boxes given below with the various reasons for the movement of early man:**



THE EARTH IN THE SOLAR SYSTEM

(GEOGRAPHY)

Tick (✓) the correct answer

1. **How do astronomers learn about stars?**
 - a. Constellations
 - b. Telescopes
 - c. Space Walks
 - d. Space Stations
2. **What is a 'Light Year'?**
 - a. The distance that light travels in one year
 - b. The same as the speed of light
 - c. The amount of time it takes light to travel one mile
 - d. The distance that light travels in one second
3. **What is the difference between long-period and short – period comets?**
 - a. Long-period comets: more than 100 years. Short –period: less than 100 years
 - b. Long-period comets: more than 200 years. Short –period: less than 200 years
 - c. Long-period comets: more than 300 years. Short period: less than 300 years
 - d. Long-period comets: more than 500 years. Short period: less than 500 years
4. **Why are constellations useful?**
 - a. Help in naming stars
 - b. All stars can be seen at the same time
 - c. Help people to see stars without telescopes
 - d. Divide the sky into sections and help in the location of a particular star
5. **What is a 'galaxy'?**
 - a. A large –scale group of planets, stars, moons bound together by gravity
 - b. A large-scale group of stars, gas, and dust bound together by gravity
 - c. A large-scale group of stars, rocks and dirt bound together by gravity
 - d. A large-scale group of gas, elements and atoms bound together by gravity
6. **What type of galaxy is the 'Milky Way'?**
 - a. Elliptical
 - b. Spherical
 - c. Irregular
 - d. Spiral
7. **By analysing the light that a star emits , astronomers can determine**
 - a. The motion of a star
 - b. Composition and temperature of a star
 - c. The size and weight of a star
 - d. The galaxy that the star belongs to
8. **Which inner planets have almost the same size, mass and density?**
 - a. Mars and Venus
 - b. Earth and Mars
 - c. Mercury and Venus
 - d. Mercury and Mars
9. **Which planets show evidence of heavy volcanic activity?**
 - a. Mars and Venus
 - b. Earth and Mars
 - c. Venus and Earth
 - d. Mars and Mercury
10. **How do the inner planets differ from the outer planets?**
 - a. Outer plants are bigger than inner planets
 - b. Outer planets have an outer atmosphere and an inner atmosphere
 - c. Outer planets are located in the outer zone of the Milky Way
 - d. Inner planets are smaller, rockier & denser than outer planets
11. **The Greek astronomer Claudius Ptolemy proposed that planets moved in small circles, or epicycles, as they**
 - a. Revolved in larger circles around the moon
 - b. Revolved in larger circles around Sun
 - c. Revolved in even smaller circles around Earth
 - d. Revolved in larger circles around Earth
12. **The Polish astronomer Nicolaus Copernicus proposed a model for the solar system that was Sun-centred, or**
 - a. Lunacentric
 - b. Astrocentric
 - c. Heliocentric
 - d. Celestracentric
13. **According to Copernicus, all planets revolved around**
 - a. The Sun in the same direction
 - b. The moon in the same direction but at different speed and distances
 - c. The Sun in different directions but at the same speed
 - d. The Sun in different directions and speed
14. **Upon whose observations did Johannes Kepler base his three laws of planetary motion?**
 - a. Galileo
 - b. Tycho Brahe
 - c. Ptolemy
 - d. Newton
15. **Compared with terrestrial planets, the gas giants**
 - a. Have more gravity, which helps them retain gases
 - b. Have less gravity which helps them retain gases
 - c. Have the same amount of gravity, which helps them retain gases
 - d. Have no gravity, which helps them retain gases
16. **The thick atmosphere of the gas giants is made up of**
 - a. Oxygen and Hydrogen
 - b. Helium and Carbon dioxide
 - c. Hydrogen and Helium
 - d. Carbon dioxide and Oxygen
17. **The gas giants have ring systems that are made up of**
 - a. Orbiting moons
 - b. Dust and icy debris
 - c. Comets
 - d. Asteroids and gases
18. **The composition of asteroids is similar to that of**
 - a. Inner planets
 - b. Gas giants
 - c. Comets
 - d. Outer planets
19. **A comet's spectacular tail forms when**
 - a. Sunlight changes the comet's ice to gas
 - b. Sunlight is reflected from the comet
 - c. Moonlight is reflected from the comet
 - d. Gravity pulls gas from the comet
20. **What happens when a meteoroid enters the Earth's atmosphere?**
 - a. Dissolves in the Earth's atmosphere
 - b. Gives out heat and light
 - c. Collides with the Earth
 - d. Friction between molecules of the atmosphere and the meteoroid, heat up the meteoroid's surface; so most of them burn up

GLOBE: LATITUDES AND LONGITUDES

(GEOGRAPHY)

Tick (✓) the correct answer

- Which system is used to describe the different climatic regions and time zones of the world?
 - Greenwich Mean Time
 - Heat Zones
 - Grid System
 - Time Zones
- Which of these is one of the advantages of representing the Earth on a Globe?
 - Distorts the shape of the Earth
 - Continents and seas can be drawn to scale
 - Inaccurate representation of the Earth
 - Globes are difficult to carry
- Which of these is the correct method to measure latitudes?
 - Measured from the Prime Meridian
 - Measured from the North Pole
 - Measured from the Equator to 90 degrees in the north and 90 degrees in the south
 - Measured from the South Pole
- Which latitude is almost equal to the circumference of the Earth?
 - Equator
 - Prime Meridian
 - Tropic of Cancer
 - Tropic of Capricorn
- How do the lines of Latitude help geographers?
 - To know the exact location of a place
 - To know the exact location of a place, climate and vegetation found there
 - To know the distance from the Equator
 - To know its distance from the Poles
- Why do geographers need to use the lines of Longitude?
 - To know in which hemisphere
 - Location with respect to the Prime Meridian
 - To know the exact location of a place and to calculate the time of a place with respect to GMT
 - Location with respect to the Equator
- The lines of Latitude are parallel to each other, whereas the unique feature in the lines of Longitude is?
 - Equidistant from each other
 - Do not meet at one point in the Northern and Southern hemisphere
 - Closer to each other at the Equator than at the Pole
 - Closer to each other at the Poles than at the Equator
- Why does the Torrid Zone experience no seasons?
 - It receives slanted rays of the Sun
 - It receives direct rays of the Sun
 - It receives no sunlight
 - It is located near the Equator
- What is the significance of the International Date Line not being a straight line, but a zigzag line?
 - The day and date change as we cross this line
 - Helps to determine the time
 - Avoids crossing any landmass, since crossing any landmass would mean having two dates at the same time
 - Together with the Prime Meridian it divides the Earth into two hemispheres
- The meridian of 30 degrees east passes through Turkey, and the same meridian passes through Zimbabwe. What impact will it have on the local time of the two countries?
 - A time difference of less than 5 hours
 - Will have the same local time, as all the places on the same meridian have the same local time
 - Different local times
 - Time difference of more than 10 hours between the local

11. Study the map below and answer the questions that follow:

i. If it is noon at Cape Town what time is it in Buenos Aires?

- 7.00 A.M
- 8.00 P.M
- 4.00 P.M
- 5.00 P.M

ii. If it is Saturday in Honolulu, in which city is it a Sunday?

- Lima
- San Francisco
- Chicago
- Manila

iii. The Prime Meridian runs closest to which city?

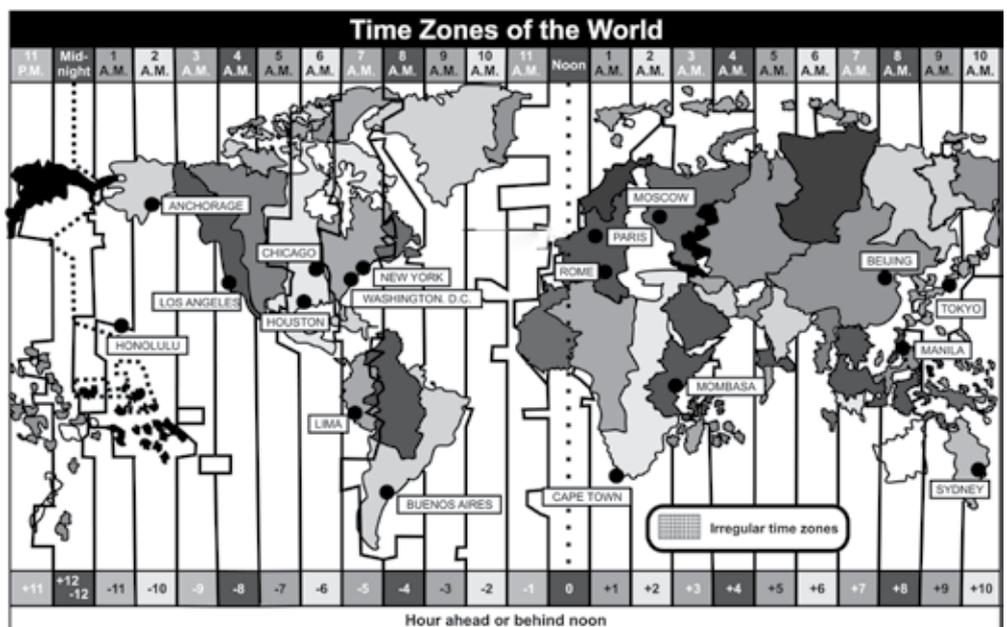
- Rome
- Mombasa
- Greenwich
- Tokyo

iv. Which city is in the same time zone as New York?

- Anchorage
- Lima
- Buenos Aires
- Chicago

v. If it is noon in Moscow, what time is it in Tokyo?

- 3.00 P.M.
- 4.00 P.M.
- 5.00 P.M.
- 6.00 P.M.



RATIONAL NUMBERS

Tick (✓) the correct answer

- Every number that can be written as fraction, in which both the numerator and denominator are integers, is
 - integers
 - rational numbers
 - fraction
 - decimals
- The sum of a number and its opposite, or additive inverse, is
 - 0
 - 1
 - 2
 - Number itself
- Number of rational numbers between any two rational numbers is
 - 2
 - 4
 - 0
 - Infinite
- Multiplicative inverse of 0 is
 - 0
 - 1
 - does not exist
 - none of these
- The product of two numbers is $\frac{-9}{35}$. If one of the numbers is $\frac{-4}{7}$, the other is
 - $\frac{9}{20}$
 - $\frac{9}{35}$
 - $\frac{7}{35}$
 - $\frac{-7}{35}$
- Which one of the rational numbers... $\frac{-11}{28}, \frac{-5}{7}, \frac{-29}{42}, \frac{9}{-14}$ is the greatest?
 - $\frac{-5}{7}$
 - $\frac{9}{-14}$
 - $\frac{-29}{42}$
 - $\frac{-11}{28}$
- Which of the following rational numbers is in the standard form?
 - $\frac{-4}{11}$
 - $\frac{9}{-81}$
 - $\frac{-4}{76}$
 - $\frac{14}{24}$

- Which is greater, the sum of $\frac{4}{5}$ and $\frac{-7}{9}$ or the subtraction of $\frac{2}{7}$ and $\frac{-1}{5}$?
 - the subtraction of $\frac{-1}{5}$ and $\frac{2}{7}$
 - the sum of $\frac{4}{5}$ and $\frac{-7}{9}$
- Simplify $(\frac{2}{5} \div \frac{3}{8}) \div \frac{-3}{5}$
 - $\frac{16}{5}$
 - $\frac{-16}{5}$
 - $\frac{16}{3}$
 - $\frac{-16}{3}$
- Simplify $\frac{-9}{5} \times (\frac{-10}{3} \times \frac{15}{-4}) \div 5$
 - $\frac{-9}{2}$
 - $\frac{9}{2}$
 - $\frac{45}{2}$
 - $\frac{-45}{2}$

Fill in the blanks.

- The product of a rational number and its reciprocal is _____.
- The reciprocal of a, where $a \neq 0$, is _____.
- Zero has _____ reciprocal.
- The numbers _____ and _____ are their own reciprocals.
- As per the _____ property, the two rational numbers can be multiplied in any order, their product remains the _____.

State whether the following statements are true or false.

- The reciprocal of a positive rational number is negative.
- The sum of any two rational numbers is also a rational number.
- Subtraction of rational number is neither commutative nor associative.
- In case of division of rational numbers, commutative and associative properties are applicable.
- Zero is the smallest rational number.

ALGEBRAIC EXPRESSIONS

Tick (✓) the correct answer

1. Sonal planted t fewer trees than Shelly. Shelly planted 32 trees. Which expression shows the trees planted by Sonal?

- a. $32 - t$
- b. $t - 32$
- c. $t + 32$
- d. t

2. Identify the degree of the polynomials.

- $20x^6 + 10x^4 - x$
- a. 2nd degree
 - b. 7th degree
 - c. 9th degree
 - d. 6th degree

3. Add the polynomials

- $(5x^2 - 3x + 7) + (2x^3 + 5x^2 + x + 5)$
- a. $2x^3 + 10x^2 + 2x + 12$
 - b. $2x^3 + 10x^2 - 2x + 12$
 - c. $2x^3 + 2x^2 + 5x + 71$
 - d. $7x^3 + 2x^2 + 7x + 5$

4. Find the product of

- $a^2(b^2 - c^2) + b^2(c^2 - a^2) + c^2(a^2 - b^2)$
- a. $2a^2b^2 + 2a^2c^2 + 2b^2c^2$
 - b. 1
 - c. 0
 - d. None

5. Find the value of m , if $4m = (52)^2 - (50)^2$

- a. 102
- b. 4
- c. 204
- d. 51

6. Find the value of

- $(u^2 + v^2)$, if $(u + v) = 20$ and $uv = 10$.
- a. 380
 - b. 400
 - c. 390
 - d. 410

7. If $3a + 5b = 21$ and $ab = 6$, find the value of $9a^2 + 25b^2$.

- a. 251
- b. 261
- c. 361
- d. 350

Fill in the blanks.

8. The degree of a constant is _____.
9. Algebraic expressions having one, two and three terms are called _____, _____ and _____.

State whether the following statements are true or false.

10. In $(-4x^3 + 6y^2 - 3z) - (-5x^3 - 3y^2 - 2z)$, the second equation will become positive.
11. The difference of $3ab - 7ab$ is a positive.

Match the polynomials in column A to its corresponding terms in column B.

Column A	Column B
12. xy	a. trinomial
13. $5x^2 - 8y + 2$	b. $4ab$
14. $7x^2 + y$	c. monomial
15. Monomial	d. $6x^3 + 5x - 9$
16. Trinomial	e. binomial

Write your solution in performing the given operations.

17. $(8x5 - 3xy3 + 2y2) + (2x5 - 2xy3 + 2y2) =$
_____.
18. $(x3 - 3x2 + 7x + 2) - (5x3 + x2 - 10x + 24) =$
_____.
19. $3x3(4y2) =$ _____
20. $(6y2 + y - 5) \div (6y - 5) =$

FACTORISATION

Multiple Choice Questions.

- $(a + b)^2$ equals
 - $(a + b)(a + b)$
 - $(a - b)(a - b)$
 - $(a + b)(a - b)$
 - $2(a + b)$
- Highest common factor of $7p^3q^3$ and $21p^2q$ is
 - p^3q^3
 - p^2q
 - $7p^2q$
 - $7pq^2$
- The highest common factor of $6a^3b + 3a^2b^2 - 18ab^3$ is
 - $3ab$
 - $3a^2b$
 - $3ab^2$
 - ab
- Evaluate $(205)^2 - (195)^2$
 - 400
 - 4000
 - 100
 - None of these
- Which one of the following is not a factor of $x^2 + x$?
 - $x + 2$
 - $x + 1$
 - x
 - $x(x + 1)$
- Evaluate $(2.6)^2 - (0.6)^2$
 - 6.4
 - 6
 - 2.4
 - 0.4

Fill in the blanks.

- The process of finding factors of an algebraic expression is called _____.

- Factorisation of _____ is $(t + 7)(t + 1)$.
- The factor of $2x + 8y - 3px - 12py$ is _____.

State whether the following statements are true or false.

- The factor of $2n^2 - 6n + 4$ is $(n - 1)(n - 2)$.
- The factor of $25 - p^2$ is $(5 + p)(5 - p)$.
- The factor of $12b^2 + 17b - 5$ is $(2b + 1)(6b - 5)$.
- The two factors of $x^2 - 4x + 4$ are same.

Match the polynomials in

column 'A' to its proper factor of grouping in column 'B'

- | Column A | Column B |
|--------------------------------|---------------------------|
| 14. $2x^2 - 6x + 8$ | a. $3(x + 3y)$ |
| 15. $5x + 30$ | b. $3xy(2x + 3y)(x - 2y)$ |
| 16. $3xy + 21x - 2y - 14$ | c. $2(x^2 - 3x + 4)$ |
| 17. $5x^2 + 11x + 2$ | d. $(y + 7)(3x - 2)$ |
| 18. $3x + 9y$ | e. $(5x - 1)(x - 2)$ |
| 19. $2x^3 - 4x^2 - 6x$ | f. $5(x + 6)$ |
| 20. $6x^3y + 3x^2y^2 - 18xy^3$ | g. $2x(x + 1)(x - 3)$ |

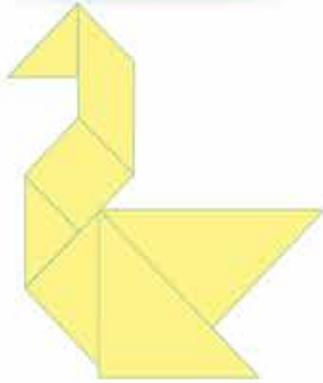
ANSWER KEY - CLASS III: EVS				ANSWER KEY - CLASS V : EVS			
Plants	Animal Life	Feathered Friends	The Human Body	Amazing Animals	Plant Reproduction, Germination and Growth	The Skeletal System	The Nervous System
1. d 2. c 3. a 4. d 5. b 6. a 7. c 8. b 9. c 10. d 11. a 12. Seed 13. Trunk 14. Roots 15. Climber 16. Air, Water and Sunlight 17. i-B, ii-E, iii-A, iv-F, v-D, vi-C	1. b 2. d 3. c 4. c 5. d 6. c 7. b 8. c 9. a 10. b 11. b 12. c 13. Omnivores 14. Carnivores 15. Consumers 16. Herbivores 17. Producers 18. Photosynthesis 19. Decomposer 20. Webbed	1. b 2. a 3. b 4. c 5. d 6. d 7. c 8. a 9. a 10. a 11. a 12. d 13. curved 14. warm blooded 15. preen 16. backbone, mammals 17. metabolism 18. feathers 19. flippers 20. Insects	1. c 2. a 3. d 4. a 5. c 6. b 7. d 8. a 9. c 10. d 11. c 12. a 13. kidneys 14. organs, System 15. nose 16. carbon Dioxide 17. B 18. A 19. D 20. C	1. a 2. d 3. a 4. a 5. b 6. c 7. b 8. d 9. a 10. a 11. c 12. c 13. b 14. a 15. d 16. e 17. Polar areas 18. Grasslands 19. Desert 20. Polar areas	1. d 2. b 3. b 4. c 5. c 6. d 7. b 8. b 9. c 10. d 11. a 12. a 13. Kharif 14. Stamen 15. Pollination 16. Dispersal 17. Germination 18. Vegetative propagation 19. Seed coat 20. bean, pepper	1. a 2. c 3. c 4. a 5. d 6. d 7. d 8. a 9. c 10. b 11. d 12. a 13. skeleton 14. spinal cord 15. femur 16. hinge 17. sternum 18. brain 19. bone marrow 20. vertebrae	1. c, d 2. a, a 3. b, d 4. b, d 5. b, d 6. d 7. b, d 8. a 9. b, d 10. a 11. sensory nerves, brain 12. medulla 13. skin 14. nerves 15. cerebrum 16. sense 17. reflex action 18. cerebellum 19. sensory, motor and mixed 20. 

ANSWER KEY - CLASS VI: SOCIAL STUDIES				ANSWER KEY - CLASS VIII : MATHEMATICS			
What, Where, How and When? (History)	On the Trail of the Earliest People (History)	The Earth in the Solar System (Geography)	Globe: Latitudes and Longitudes (Geography)	Rational Numbers	Exponents and Powers	Algebraic Expressions	Factorisation
1. c 2. c 3. c 4. b 5. d 6. a 7. a 8. b 9. a 10. b 11. d 12. b 13. History 14. Chronologically 15. Gandhara 16. Birch barks 17. A: Religious; B: Secular; C: Monuments; D: Coins/pottery inscriptions	1. c 2. d 3. d 4. b 5. a 6. c 7. b 8. b 9. a 10. b 11. b 12. a 13. Kurnool 14. Bhimbetka, Hunsgi 15. Dolphins 16. Migration 17. A: In search of food B: In search of water C: Following animal migration D: In search of raw material for stone tools	1. b 2. a 3. c 4. d 5. b 6. b 7. b 8. b 9. a 10. d 11. d 12. c 13. a 14. b 15. a 16. c 17. b 18. a 19. a 20. d	1. c 2. b 3. c 4. a 5. b 6. c 7. d 8. b 9. c 10. b 11. i. a ii. d iii. c iv. b v. d	1. b 2. a 3. d 4. c 5. a 6. d 7. a 8. a 9. d 10. a 11. 1 12. 1/a 13. no 14. 1; -1 15. commutative; same 16. False 17. True 18. True 19. False 20. False	1. d 2. b 3. d 4. a 5. c 6. b 7. a 8. b 9. b 10. c 11. c 12. a 13. even 14. even 15. subtract 16. add 17. False 18. True 19. False 20. False	1. a 2. d 3. b 4. c 5. d 6. a 7. c 8. 0 9. monomial; binomial; trinomial 10. True 11. False 12. c 13. a 14. e 15. b 16. d 17. $10x^5 - 5xy^3 + 4y^2$ 18. $-4x^2 - 4x^2 + 17x - 22$ 19. $12x^3y^2$ 20. $y + 1$	1. a 2. c 3. a 4. b 5. a 6. a 7. factorisation 8. $(t + 4)^2 - 9$ 9. $(2 - 3p)(x + 4y)$ 10. False 11. True 12. False 13. True 14. c 15. f 16. d 17. e 18. a 19. g 20. b

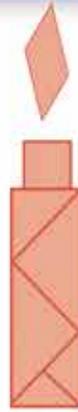


Try making these shapes!

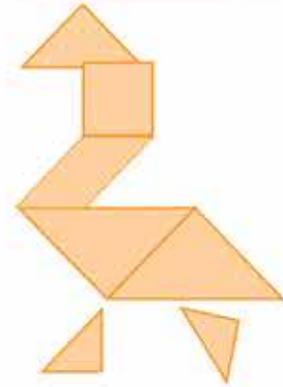
swan



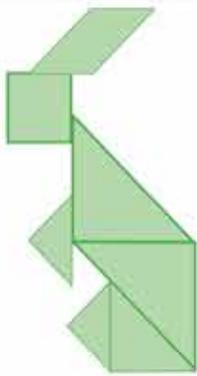
candle



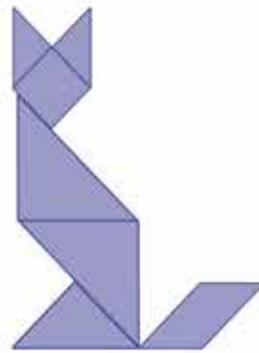
duck



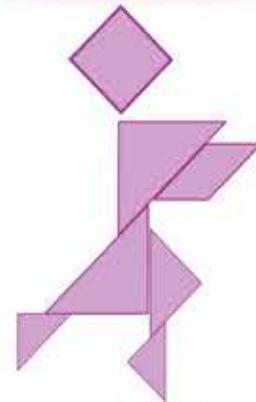
bunny



cat



dancer



bird



spinning top



↓ CLASSROOM DISPLAY PULLOUT ↓

~AROUND ME~

Visit a toy shop and see the different types of puzzle games. Find out their names.

WORD POOL

'Bunny' is another word for a 'rabbit'.

DIY Project

Do the activity on this page and see how many logical shapes you are able to make.