OLYMPIAD SAMPLE QP (CLASS 9)

BIOLOGY

1. Which sub-group in the plant kingdom produces flowers?
   (A) Angiosperms
   (B) Fungi
   (C) Mosses
   (D) Ferns
   Answer: (A)

2. The barrier between the protoplasm and the outer environment in an animal cell is
   (A) Plasma membrane
   (B) Cell membrane
   (C) Mitochondrial membrane
   (D) Endoplasmic reticulum
   Answer: (A)

3. Ribosomes are the site of -
   (A) Protein synthesis
   (B) Lipid synthesis
   (C) DNA replication
   (D) Energy production
   Answer: (A)

4. Choose the option that best describes the characteristics of the kingdom to which the mushroom belongs:
   (A) Unicellular prokaryotic organisms
   (B) Saprophytic, eukaryotic, multicellular organisms
   (C) Unicellular eukaryotic organisms
   (D) Autotrophic eukaryotic organisms
   Answer: (B)

5. The disease caused due to worm is -
   (A) Tetanus
   (B) Rabies
   (C) Sleeping sickness
   (D) Filariasis
   Answer: (D)

6. Diarrhea, cholera, typhoid are the diseases that have one thing in common that is -
   (A) All of them are caused by bacteria
   (B) All of them are transmitted by contaminated food and water
   (C) All of them are cured by antibiotics
   (D) All of the above
   Answer: (B)

7. Fish is an important aquatic food which is rich in proteins. The act of capturing, preservation and utilization of fishes is called fish culture. Among the options choose the one which doesn't describe the benefit of fish culture?
   (A) A large number of fishes are raised in a small area
   (B) Economically important and desired fishes are made available
   (C) There is a higher mortality rate in the younger stages of the fishes
   (D) Through selective hybridization, yield and quality of fishes are improved
   Answer: (C)

8. Consider the following statements:
   I. Areolar connective tissue is found between the skin and muscles, around blood vessels and nerves and in the bone marrow.
   II. Fat storing adipose tissue is found below the skin and between internal organs.
   Which of the statement(s) given above is/are correct?
   (a) Only I
   (b) Only II
   (c) I and II
   (d) None of these
   Answer: (c)

9. Fill in the blank:
   Certain parts of a plant can be bent easily without breaking. This flexibility in

certain parts, like leaf and stem, can be attributed to the abundance of
(a) parenchyma
(b) collenchyma
(c) sclerenchyma
(d) xylem and phloem
Answer: (b)

10. Choose the correct option and complete the following sentence:
The cell organelle which helps in the synthesis of fats in adipose tissue is
(a) smooth endoplasmic reticulum
(b) rough endoplasmic reticulum
(c) mitochondria
(d) adipocytes
Answer: (a)

11. In the following question, an assertion and the reason are given. Choose the correct option:
Assertion: Plasma membrane contains bimolecular lipid layer, the surface of which is interrupted by proteins.
Reason: Selective permeability of the plasma membrane is explained with the help of a fluid mosaic model.
(a) Both assertion and reason are true and reason is the correct explanation for the assertion.
(b) Both assertion and reason are true, but reason is not the correct explanation for the assertion.
(c) Assertion is true and reason is false.
(d) Assertion is false and reason is true.
Answer: (a)

12. Which of the following animals cannot survive both in land and water habitats?
(a) Salamanders
(b) Alligators
(c) Ostrich
(d) Penguins
Answer: (c)

13. Identify the disease-causing agents:
(a) Cholesterol, saturated fat and helminths

(b) Measles, mumps and chickenpox
(c) Viruses, bacteria and fungi
(d) Both a and c
Answer: (c)

14. Which of the following is not a consequence of desertification?
(a) Decrease in the water-holding capacity of soil.
(b) Increased chances of floods.
(c) Increase in the temperature of the earth.
(d) Decrease in the concentration of carbon dioxide in atmosphere.
Answer: (d)

15. Consider the following statements and choose the correct option:
Statement 1: Mixed cropping is growing two or more crops simultaneously on the same piece of land, for example, wheat + gram, or wheat + mustard, or groundnut + sunflower.
Statement 2: Intercropping involves growing two or more crops simultaneously on the same field in a definite proportion or pattern. A few rows of one crop alternate with a few rows of a second crop, for example, soybean + maize.
(a) Both the statements are correct.
(b) Both the statements are incorrect.
(c) Statement 1 is incorrect but statement 2 is correct.
(d) Statement 1 is correct but statement 2 is incorrect.
Answer: (a)

16. Match the following:

List I	**List II**
1.*Cell Wall*	*a.Closed Ring*
2.*Flagella*	*b.Food Reserve*
3.*DNA*	*c.Protect Cell*
4.*Glycogen*	*d.Locomotory Structure*

(a) 1 – c, 2 – d, 3 – b, 4 – a
(b) 1 – d, 2 – c, 3 – b, 4 – a
(c) 1 – c, 2 – d, 3 – a, 4 – b
(d) 1 – a, 2 – b, 3 – d, 4 – c
Answer: (c)

17. Rectify the given statements by replacing the underlined words and select the correct option:
    i. The viscous fluid present in the nucleus is called cytoplasm.
    ii. Vacuoles are rod shaped structures which oxidise food to provide energy.
    iii. Mitochondria contain green pigment chlorophyll and take part in photosynthesis.
    iv. Lysosomes take part in synthesis of proteins.
    (a) i-nucleoplasm, ii-Lysosomes, iii-Plastids, iv-Centrosomes
    (b) i-protoplasm, ii-Ribosomes, iii-Centrosomes, iv-Golgi bodies
    (c) i-nucleoplasm, ii-Mitochondria, iii-Chloroplasts, iv-Ribosomes
    (d) i-protoplasm, ii-Plastids, iii-Chloroplasts, iv-Ribosomes
    Answer: (c)

18. Harry made the following comments about cells during a class presentation. After his presentation, his teacher remarked that he made an erroneous comment. Find the same.
    i. Cellulose cell walls are found in animal cells.
    ii. Chlorophyll is found in chloroplasts.
    iii. A cell is usually made up of a cell membrane, cytoplasm and nucleus.
    iv. Vacuoles are found mostly in plant cells.
    (a) i and ii only
    (b) ii, iii only
    (c) i only
    (d) All of them
    Answer: (c)

19. Consider the following statements and choose the correct option:
    I. Tapeworm is a hermaphrodite.
    II. Roundworm has separate sexes.
    III. Filaria is caused by a nematode.
    IV. Guinea worm is an annelid.
    (a) I and II are correct
    (b) I, II and III are correct
    (c) III and IV are correct
    (d) II, III and IV are correct
    Answer: (b)

20. In the following question, an assertion and reason are given. Choose the correct option:
Assertion: Meiosis is also known as a reduction division.
Reason: Meiosis involves the formation of daughter cells with half the number of chromosomes than that of the parent cell.
(a) Both assertion and reason are true and reason is the correct explanation for the assertion
(b) Both assertion and reason are true and reason is not the correct explanation for the assertion
(c) Assertion is true and reason is false
(d) Assertion is false and reason is true
Answer: (a)

MATHS

1. A, B and C are three sets of values of x:
A: 2, 3, 7, 1, 3, 2, 3
B: 7, 5, 9, 12, 5, 3, 8
C: 4, 4, 11, 7, 2, 3, 4
Which one of the following statements is correct?
(a) Mean of A = Mode of C
(b) Mean of C = Median of B
(c) Median of B = Mode of A
(d) Mean, Median and Mode of A are equal
Answer: (a)

2. A, B and C can complete a piece of work in 25, 30 and 50 days, respectively. They started the work together but A and C left 2 days before the completion of the work. In how many days will the work be completed?
(a) 14
(b) 12
(c) 18
(d) 10
Answer: (a)

3. What least number must be subtracted from 1294 so that the remainder when divided by 9, 11, 13 will leave in each case the same remainder 6?
   (a) 0
   (b) 1
   (c) 2
   (d) 3
   Answer: (a)

4. A boy has some candies. If he divides it between himself and his two siblings, there are two candies that would remain. But if he also included his parents, there would be no candies left. Given that the number of candies is a two-digit number, how many values can it assume?
   (a) 5
   (b) 6
   (c) 7
   (d) 9
   Answer: (b)

5. Dora drew a figure and concealed it in one hand. She challenged her friend Luke to figure out what she drew by providing the following clue: The figure obtained by joining the midpoints of adjacent sides of a rectangle 8 cm and 6 cm is:
   (a) a rhombus of area 24 cm^2
   (b) a rectangle of area 24 cm^2
   (c) a trapezium of area 24 cm^2
   (d) a square of area 25 cm^2
   Answer: (a)

6. A hemispherical balloon's radius rises from 6 cm to 12 cm as air is pumped into it. The ratio of the balloon's surface areas in the two cases is:
   (a) 1:2
   (b) 1:3
   (c) 1:4

(d) 1:5
Answer: (c)

7. If the distance from the vertex to the centroid of an equilateral triangle is 6 cm, then what is the area of the triangle?
(a) 24 cm^2
(b) 27$\sqrt{3}$ cm^2
(c) 12 cm^2
(d) 12$\sqrt{3}$ cm^2
Answer: (b)

8. If the radius of a cylinder is decreased by 50% and the height is increased by 50% to form a new cylinder, then the volume will be decreased by:
(a) 0%
(b) 25%
(c) 62.5%
(d) 75%
Answer: (c)

9. In a town, 35.4% of the people are not literate, 27% have education up to primary school, and 18.6% have education up to middle school. The people with education up to high school are twice the number of people with education up to pre-university. Of the remaining, 660 are graduates. If the population of the town is 15,000, then what is the number of people with education up to high school?
(a) 3120
(b) 1560
(c) 1460
(d) None of these
Answer: (b)

10. Nike has marked four points on his plot where a fence will be built, and he wants to know the shape of the plot. The points A(1, 2), B(5, 4), C(3, 8) and D(-1, 6) taken in order are the vertices of:

(a) A rectangle
(b) A rhombus
(c) A square
(d) A kite
Answer: (b)

11. Consider obtuse-angled triangles with sides 8 cm, 15 cm and x cm. If x is an integer, then how many such triangles exist?
(A) 5
(B) 21
(C) 10
(D) 15
Ans. [C]

12. A shop stores x kg of rice. The first customer buys half this amount plus half a kg of rice, The second customer buys half the remaining amount plus half a kg of rice. Then the third customer also buys half the remaining amount plus half a kg of rice. Thereafter, no rice is left in the shop. Which of the following best describes the value of x?
(A) 2
$\leq x \leq 6$
(B) 5
$\leq x \leq 8$
(C) 0
$\leq x \leq 12$
(D) 11
$\leq x \leq 14$
Ans. [B]

13. Two metallic right circular cones having their heights 4.1 cm and 4.3 cm respectively and the radii of their bases 2.1 cm each, have been melted together and recast into a sphere. Find the diameter of the sphere.
(A) 2.1 cm
(B) 3.5 cm
(C) 4.2 cm
(D) 6.2 cm
Ans. [C]

14. The population of a town is increased from 1,75,000 to 2,62,500 in a decade. The average percent increase of population per year is _____.
(A) 4.37%
(B) 5%
(C) 6%
(D) 50%
Ans. [B]

15. The probability of guessing the correct answer to a certain test question is $\frac{x}{2}$. If the probability of not guessing the correct answer to this question is $\frac{2}{3}$, then x =
(A) 2
(B) 3
(C) $\frac{2}{3}$
(D) $\frac{1}{3}$
Ans. [C]

16. A boy multiplied 12345679 by second, third and seventh multiple of 9, then the average of their total is _____.
(A) 444444444
(B) 44444444
(C) 4444444
(D) 444444
Ans. [A]

17. In how many years will a sum of ₹800 at 10% per annum compounded semiannually become ₹926.10 ?
(A) $1\frac{1}{3}$
(B) $1\frac{1}{2}$
(C) $2\frac{1}{3}$
(D)

$2\frac{1}{2}$
Ans. [B]

18. Find the remainder when $9x^3 - 3x^2 + x - 5$ is divided by $x - \frac{2}{3}$.
    (A) 3
    (B) –3
    (C) 2
    (D) –2
    Ans. [B]

19. The mean of 40 items is 35 and if each item is multiplied by 'a' then the new mean will be
    (A) 35a
    (B) 35 + a
    (C) 40
    (D) 40 + a
    Ans. [A]

20. A cube of side 6 cm is painted on all its 6 faces with red colour. It is then broken up into 216 smaller identical cubes. What is the ratio of $N_0 : N_1 : N_2$. Where, N_0 is the number of smaller cubes with no colored surface, N_1 the number of smaller cubes with 1 red face and N_2 the number of smaller cubes with 2 red faces.
    (A) 3 : 4 : 6
    (B) 3 : 4 : 5
    (C) 4 : 6 : 3
    (D) 6 : 4 : 3
    Ans. [C]

CHEMISTRY

1. Acid rain is produced when rain mixes with gases such as sulphur dioxide. This will eventually result in
    (A) Lowering of pH and changes of temperature in ponds
    (B) Raising of pH in ponds, encouraging growth of microorganisms

(C) Lowering of pH in ponds, limiting survival of aquatic organisms
(D) Raising of pH in ponds, limiting development of organisms
Ans. [C]

2. All samples of carbon dioxide contain carbon and oxygen in the mass ratio 3 : 8. Which of the following laws is in agreement with the above statement?
(A) Law of conservation of mass
(B) Law of constant proportions
(C) Law of constant proportions
(D) Law of gaseous volumes
Ans. [B]

3. Consider the following statements and choose the correct option:
Statement A: An electron in the inner orbit is more tightly bound to the nucleus.
Statement B: The greater the absolute value of the energy of an electron the more tightly the electron is bound to the nucleus.
(A) Both A and B are true and B is not the appropriate reason for A.
(B) Both A and R are individually correct and B is the correct reason for A.
(C) A is correct but B is not correct.
(D) Both A and B are not correct.
Ans. [A]

4. A compound 'X' is an ionic compound. Which of the following is not the characteristic feature of X?
(A) X is soluble in water.
(B) X is a good electrical conductor in solid-state.
(C) X melts at high temperature.
(D) X is formed by transfer of electron(s)
Ans. [B]

5. What will happen if a saturated salt water solution is heated and allowed to cool without adding any more salt?
(A) Some salt will appear to settle at the bottom
(B) Some more salt can be dissolved now
(C) No change takes place
(D) Both a and b
Ans. [C]

6. Hard water cannot be used in boilers. Which of the following is the reason for the same?
   (A) The boiling point of hard water is high.
   (B) The conductivity of hard water is less.
   (C) Hard water causes scales on the walls of the boilers.
   (D) Hard water reacts with metals used in making boilers.
   Ans. [C]

7. The maximum numbers of electrons can be accommodated in K shell is _____
   (A) 2
   (B) 8
   (C) 18
   (D) 32
   Ans. [A]

8. An element A has valency equal to 4. What will be the formula of its sulphate salt?
   (A)
   $A_2(SO_4)3$
   (B)
   $A(SO4)2$
   (C)
   $A(SO_3)2$
   (D)
   $A_2(SO_3)_3$
   Ans. [B]

9. Identify the correct symbol of Copper
   (A) Cu
   (B) Co
   (C) Ge
   (D) Cd
   Ans. [A]

10. Which of the following is the formula of Silver Chloride?
    (A)
    $AgCl_2$

(B)
$AgCl$
(C)
$AgCl_3$
(D) None of the above
Ans. [B]

11. Number of moles present in 56g of nitrogen gas are -
    (A) 1 mole
    (B) 2.3 moles
    (C) 0.5 mole
    (D) 2 moles
    Ans. [D]

12. _____ is the formation of solid from vapor.
    (A) Evaporation
    (B) Sublimation
    (C) Boiling
    (D) Melting
    Ans. [B]

13. Which of the following iron sheets will be least likely to rust?
    (A) Those coated with zinc but has some scratches exposing the iron below
    (B) Those coated with a layer of grease on the side exposed to the elements
    (C) Those coated with a layer of copper on the side exposed to the elements
    (D) Those coated with weatherproof paint but have some scratches exposing the iron below
    Ans: A

14. X, Y and Z are three covalent substances which are found in different states at the same temperature and pressure. X is a solid, Y is a gas and Z is a liquid. Which of the following shows the order of increasing strength of their intermolecular forces?
    (A) X < Y <Z
    (B) X < Z <Y
    (C) Y < Z <X
    (D) Z < X < Y
    Ans. [C]

15. Bromine has a melting point of -7.2 °C and a boiling point of 59 °C. At what temperature will bromine have a definite volume but no definite shape?
    (A) 65 °C
    (B) 36 °C
    (C) -26 °C
    (D) 98 K
    Ans. [B]

16. What is the name of technique used for separation of ammonium chloride from of a mixture of common salt and ammonium chloride?
    (A) Distillation
    (B) Chromatography
    (C) Sublimation
    (D) Evaporation
    Ans. [C]

17. Y is a element belonging to Group IV and Z is element belonging to Group VII. Which of the following describes a compound that can be formed by Y and Z?
    (A) An ionic compound with formula
    Y_4Z.
    (B) An ionic compound with formula
    Y_4Z_7.
    (C) A covalent compound with formula
    YZ_4.
    (D) A covalent compound with formula
    Y_7Z_4.
    Ans: C

18. Which of the following pairs of aqueous reagents is not suitable for preparing insoluble salts?
    (A) Sulfuric acid calcium chloride
    (B) Aluminium chloride and silver nitrate
    (C) Lithium carbonate and iron(II) sulfate
    (D) Barium hydroxide and copper (II) sulfate
    Ans: D

19. Which of the following does not involve a physical change of state of a substance?

(A) Recovering water from the sea
(B) Fractional distillation of crude oil
(C) Hydrogenation of vegetable oils to form solid margarine
(D) Formation of white vapours when dry ice is left at room temperature
Ans: C

20. In the following question, an assertion and the reason are given. Choose the correct option:
Assertion: Coal is a combustible organic fuel.
Reason: It occurs inside the volcanoes.
(A) Both assertion and reason are true and reason is the correct explanation of assertion.
(B) Both assertion and reason are true but the reason is not the correct explanation of assertion.
(C) Assertion is true but reason is false.
(D) Assertion is false but reason is true.
Ans. [C]

PHYSICS

1. Which of the following is **NOT** one of the three equations of motion under constant acceleration?
(A)
$s = vt + \frac{1}{2}at^2$
(B)
$v = u + at$
(C)
$s = ut + \frac{1}{2}at^2$
(D)
$a = -\frac{u^2 - v^2}{2s}$
Here, u is initial velocity, v is final velocity, a is acceleration, s is displacement, t is time.
Ans: A

2. Sound waves travel fastest in which medium?
   (A) Air

   (B) Water

   (C) Plasma

   (D) Steel
   Ans: D

3. What is the S.I. unit of Loudness of sound?
   (A) Decibel

   (B) Watt

   (C) Hertz

   (D) Joule
   Ans: A

4. A ball is thrown vertically downwards with a velocity of 4m/s from a tower of height 20m. What is the velocity of the ball just before it hits the ground(in m/s)? (Approximate the answer)
   (A) 25.09

   (B) 17.8

   (C) 15.5

   (D) 20.4
   Ans: D

5. Two girls, each of weight 400N climb up a rope through a height of 8m. We name one of the girls A and the other B. Girl A takes 20 s while B takes 50 s to accomplish this task. What is the power expended by each girl?
   (A) Power expended by A is 64W and Power expended by B is 160W
   (B) Power expended by A is 64W and Power expended by B is 56W
   (C) Power expended by A is 160W and Power expended by B is 64W
   (D) Power expended by A is 50W and Power expended by B is 100W
   Ans: C

6. Two planets P and Q have masses 6m and 9m respectively (Where m = 5×10^{20}*Kg). The distance between center of P and center of Earth is 9d and distance between center of Q and center of Earth is 6d (Where d = 5.4×10^{3}

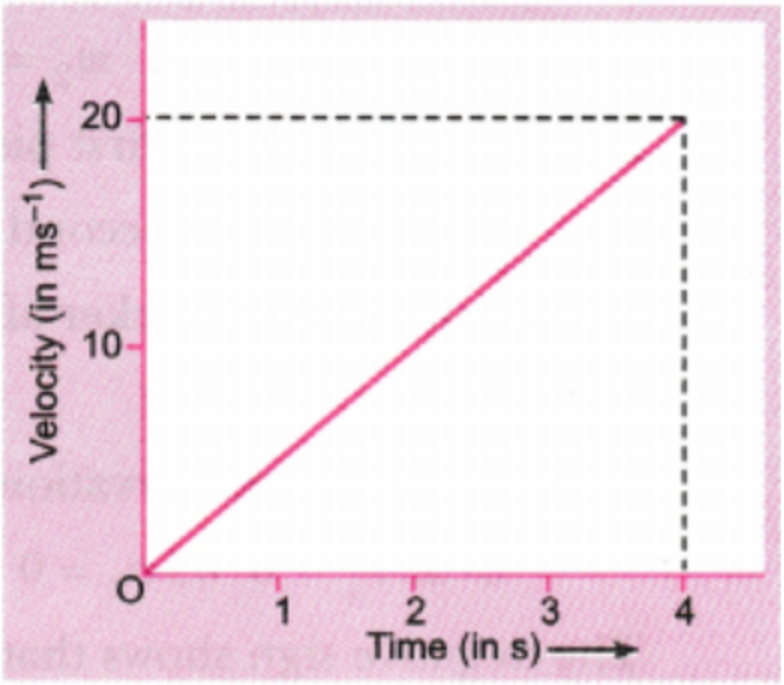
Km). What is the ratio of, the force of attraction between P and Earth to the force of attraction between Q and Earth.
(A) 5/6

(B) 7/3

(C) 4/13

(D) 20/9
Ans: C

7. A sound wave travels at a speed of 150 m/s. If its wavelength is 0.5 cm, what is the frequency of the wave? Will it be audible to the human ear?
   (A) Frequency = 5,000Hz and it will be audible
   (B) Frequency = 10,000Hz and it will NOT be audible
   (C) Frequency = 5,000Hz and it will NOT be audible
   (D) Frequency = 10,000Hz and it will be audible
   Ans: D
8. Rocket propulsion is based on which of Newton's Laws?
   (A) Newton's First Law of motion
   (B) Newton's Second Law of motion
   (C) Newton's Third Law of motion
   (D) Newton's Law of Gravitation
   Ans: C
9. The velocity-time graph of a ball moving on the surface of floor is shown in the figure. What is the force acting on the ball, if mass of the ball is 100 g?



(A) 0.34N

(B) 0.5N

(C) 0.25N

(D) 0.125N

Ans: B

10. A sound wave causes the density of air at a place to oscillate 1200 times in 2 minutes. Find the time period and frequency of the wave.
(A) Time period = 0.1s and frequency = 10Hz
(B) Time period = 10s and frequency = 0.1Hz
(C) Time period = 5s and frequency = 5Hz
(D) Time period = 2s and frequency = 0.5Hz
Ans: A

11. A bullet of mass 20 g is horizontally fired with a horizontal velocity 150 ms^{-1} from a pistol of mass 2 kg. What is the magnitude of recoil velocity of the pistol? (Recoil velocity is the velocity of the gun, just after firing the bullet)
(A) 3m/s

(B) 1m/s

(C) 0.5m/s

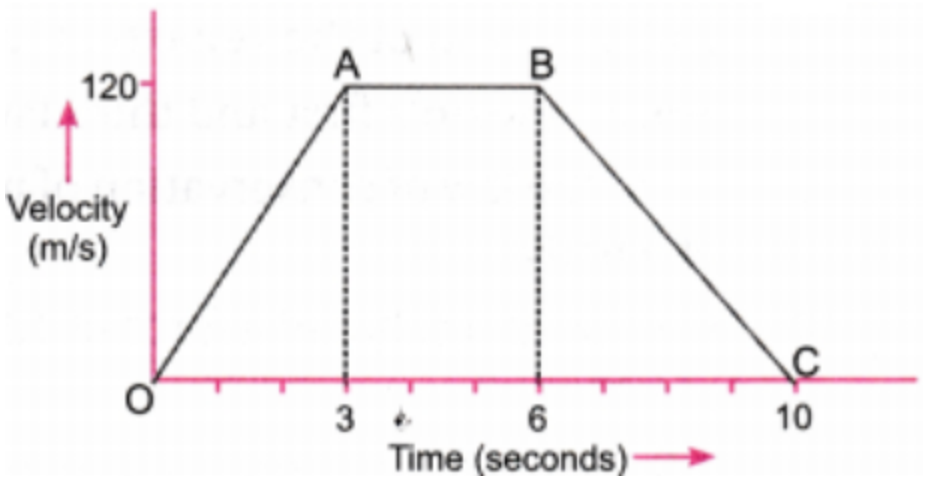
(D) 1.5m/s
Ans: D

12. At what place on the earth's surface is the weight of a body minimum?
(A) Poles
(B) Equator
(C) Northern hemisphere
(D) Southern hemisphere
Ans: B

13. Suppose that the radius of the earth becomes twice of its original radius without any change in its mass. Then what will happen to your weight?
(A) It will increase by two times
(B) It will decrease by four times
(C) It will increase by four times
(D) It will decrease by two times
Ans: B

14. Which one of the following statements is true
(A) The conservation of energy holds true for all scenarios
(B) The Work done by gravity is zero, for a block moving horizontally on the Earth's surface
(C) A stationary block has non-zero Kinetic energy
(D) The S.I. unit of Work done is Joule and the S.I. unit of Energy is Watt
Ans: B

15. Study the given graph, and find out the Force acting on the body from t=3s to t=6s.



(A) 5N

(B) 0N

(C) 10N

(D) 20N

Ans: B

16. Sound waves with frequencies below the audible range are called as what?
    (A) Infrasonic
    (B) Ultrasonic
    (C) Supersonic
    (D) None of the above
    Ans: A

17. What will happen to the gravitational force between two bodies if the masses of one body is doubled, and the distance between them is made 0.2 times the initial distance?
    (A) The new force will be SAME as the old force
    (B) The new force will be greater than the old force by 50 times
    (C) The new force will be greater than the old force by 25 times
    (D) The new force will be lesser than the old force by 50 times
    Ans: B

18. Which law was verified experimentally by James Prescott Joule?
    (A) Law of Conservation of momentum
    (B) Law of conservation of charge

(C) Law of conservation of energy
(D) Law of conservation of angular momentum
Ans: C

19. Suppose the gravitational force of attraction between the Moon and Earth suddenly becomes zero, then what will be the immediate motion of the Moon (Assume that no other celestial object influences the motion of the Moon).
(A) The Moon will fall into the Earth
(B) The Moon will continue in a circular orbit around the Earth
(C) The Moon will move out in a spiral with Earth at the center of the spiral
(D) The Moon will move in a straight line, which is tangential to the circular orbit, at the instant when force becomes zero
Ans: D

20. What happens to the kinetic energy of an object, moving initially with a speed of 2m/s when its speed changes to 8m/s?
(A) The kinetic energy becomes 4 times the initial kinetic energy
(B) The kinetic energy becomes 2 times the initial kinetic energy
(C) The kinetic energy decreases to 4 times the initial kinetic energy
(D) The kinetic energy becomes 16 times the initial kinetic energy
Ans: D

MAT

1. What comes next in the sequence?
1, 1.5, 2.25, 2.375, ?
(A) 2.4375
(B) 2.3475
(C) 3.4375
(D) 2.555
Ans: A

2. Find the missing number:
1, 2, 6, 24, ?, 720

(A) 64

(B) 100

(C) 120

(D) 524
Ans: C

3. Find the WRONG term
   9 ,13, 21, 37, 69, 132, 261
   (A) 261

   (B) 132

   (C) 9

   (D) 69
   Ans: B

4. If ORANGE is written as TVDPIE, and APPLE is written as ESRME, how is PAPAYA written in the same code?
   (A) UESCZA

   (B) UFSDXA

   (C) UDHCZA

   (D) IEXCZA
   Ans: A

5. If D=16, DOG=261, and CAT=371, then what is the value of GOAT?
   (A) 407

   (B) 507

   (C) 607

   (D) 707
   Ans: C

6. In a certain code language:
   @ = 1, # = 2, & = 3, $ = 4, and % = 5. How will 32251 be coded using the symbols?
   (A) ##&&@

   (B) @##&@

(C) &##%@

(D) &#$%$
Ans: C

7. If L stands for +, M stands for –, N stands for x, P stands for ÷, then the value of
14 10 42 2 8 N L P M is?
(A) 69

(B) 123

(C) 153

(D) 80
Ans: C

8. Pointing to a photograph, Anita says, "This man's sister is my mother's only daughter's mother-in-law." How is the man in the photograph related to Anita?
(A) Father

(B) Uncle

(C) Brother

(D) Father-in-law
Ans: D

9. Chandana is the wife of Bharat. Mohan is the son of Chandana. Ashish is the brother of Bharat and father of Dhruv. How is Mohan related to Dhruv ?

(A) Uncle

(B) Brother

(C) Cousin

(D) Father
Ans: C

10. A man travels 5 km north, then 9 km east, then 2 km south, and finally 6 km west. How far and in which direction is he from his starting point?
(A) 3 km North and 3km West
(B) 3 km South and 4km East
(C) 3 km North and 3km East

(D) 3 km South and 4km West
Ans: C

11. The first (left side) pair has some relationship between its members. In the second pair one member is missing. Find this out from the options given below such that this pair has similar relationship as the first pair.
SRCA:ONDB :: TSGE:?
(A) POHF

(B) POFH

(C) POGH

(D) POHG
Ans: A

12. If HEART is coded as 12345 and DISK is coded as 6789 respectively. How is HASTE coded?
(A) 13582

(B) 13852

(C) 13258

(D) 13600
Ans: B

13. Find the Odd animal out
(A) Chimpanzee

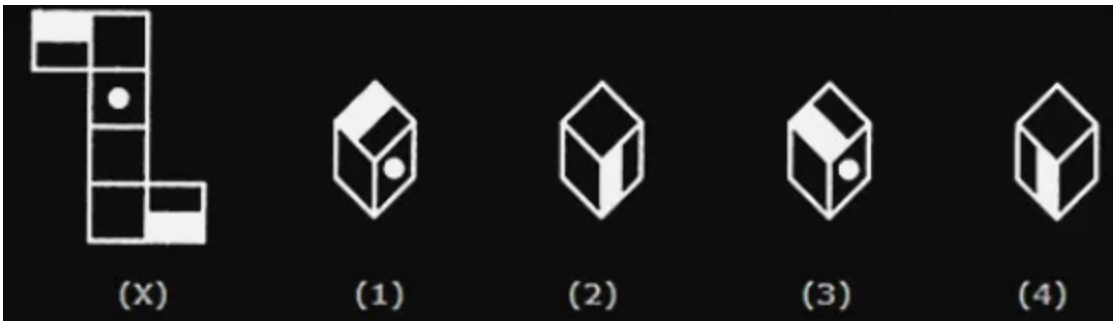
(B) Baboon

(C) Orangutan

(D) Gorilla

Ans: B

14. Choose the box which is similar to the box formed by folding the given sheet (Choose the most appropriate answer)



(A) Only (1)

(B) Only (2)

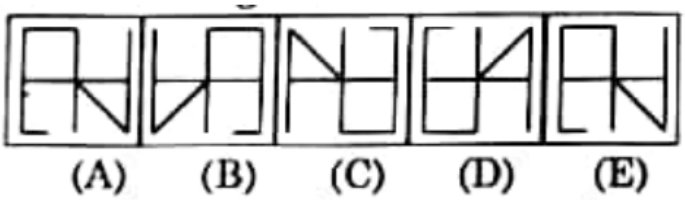
(C) Both (3) and (4)

(D) All of these

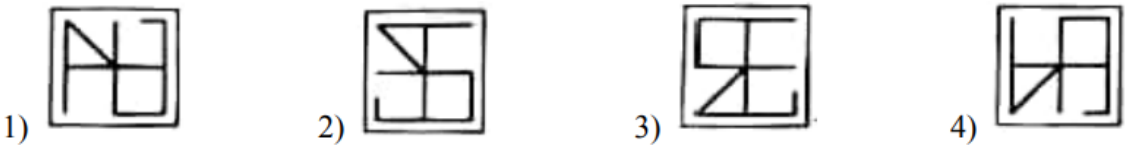
Ans: D

15. Choose the answer figure which resembles the most appropriate figure, which comes next in the given problem figure series

Problems figures



Answer figures



(A) Only (1)

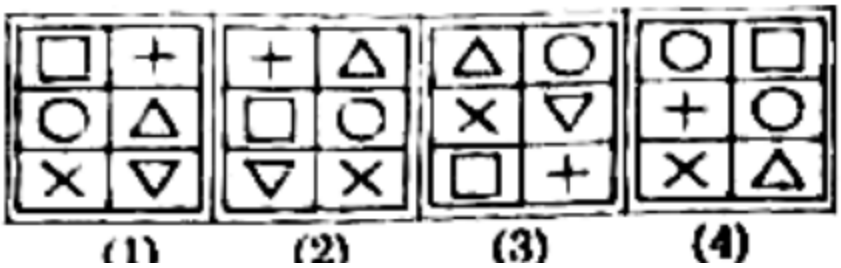
(B) Only (2)

(C) Only (3)

(D) Only (4)

Ans: D

16. Choose the figure which is different from the rest



(A) Only (1)

(B) Only (2)

(C) Only (3)

(D) Only (4)
Ans: D

17. If a person can complete a task in 10 days and another person can complete the same task in 15 days, how long will it take for them to complete the task together?
(A) 6 days

(B) 5 days

(C) 12 days

(D) 8 days
Ans: A

18. Given interchanges: Signs + and – and number 4 and 8 which one of the four equations would be correct?

(A) 4÷8-12=16

(B) 8÷4-12=24

(C) 4-8+12=0

(D) 8-4÷12=8
Ans: C

19. In a class of 160 students, each of them opt at least one food from among Cake, Macaroons, Pudding. It is found that 130 students opt Cake, 120 students Macaroons, and 110 students Pudding. If the students opt either only one language or all three languages, then what is the percentage of students

who opted all three languages?

(A) 35%

(B) 69%

(C) 62.5%

(D) 50%

Ans: C

20. Which letter replaces the question mark?

N	252	R
T	500	Y
Y	400	P
K	132	L
G	182	?

(A) P

(B) B

(C) S

(D) Z

Ans: Z