ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 08 - SCIENCE

MOCK TEST JANUARY- 2021

Time Allowed: 30 minutes **Maximum Marks: 40**

1. In game of tug-of war, two teams **[1]**

   a) Pull the rope tied with tree
   b) Pull the rope in opposite direction
   c) Pull the rope in same direction
   d) Push the rope in opposite direction

2. Rate of change in velocity is called **[1]**

   a) Momentum
   b) Conservation
   c) Acceleration
   d) Gravitation

3. Brakes of vehicle is stopped by using brake that works on property of **[1]**

   a) Retardation
   b) Friction
   c) Acceleration
   d) Pressure

4. How much force is applied on a body of mass 10 kg to increase its acceleration by 2m/s sq? **[1]**

   a) 20 N
   b) 10 N
   c) 5 N
   d) 12 N

5. A force produces an acceleration of 5m/s when applied on a body of mass 4kg. The magnitude of force applied is **[1]**

   a) 1.25N
   b) 20 N
   c) 10 N
   d) 25 N

6. Which of the following effect is not produced by force? **[1]**

   a) Change in direction
   b) Change in shape
   c) Change in speed
   d) Change in mass

7. Sliding is replaced in most machines by **[1]**

   a) Use of ball bearings
   b) Using graphite
   c) Using powder
   d) Using lubricants

8. A box weighing 2 kg exerts a force of 20 N on the ground. The box covers an area of 2 sq. m on the ground. The pressure exerted by the box on the ground is **[1]**

   a) 40 Pa
   b) 30 Pa
   c) 10 Pa
   d) 20 Pa

9. One Newton is equal to **[1]**

   a) 1 kg x 1cm
   b) 1gm x 1cm

c) 1 gm x 1m
d) 1kg x 1m

10. Perpendicular force acting per unit area is called is called **[1]**

a) Energy
b) Thrust
c) Work
d) Power

11. A perpendicular force of 50 N is acting on a circular plate of radius 7cm. The pressure acting on plate will be **[1]**

a) 10 Pa
b) 100 Pa
c) 1000 Pa
d) 3246.75 Pa

12. Astronauts wear special suits when they go into space because pressure inside the suit is maintained. **[1]**

a) At Body pressure
b) Very low pressure
c) At atmospheric pressure
d) Variable pressure

13. A force applied on an object may change its **[1]**

a) Colour
b) Mass
c) Weight
d) Speed

14. Force of friction always acts on all **[1]**

a) Heavy object
b) Lighter object
c) Stationary object
d) Moving object

15. Which of the following is an example of contact force? **[1]**

a) Frictional force
b) Electrostatic force
c) Magnetic force
d) Gravitational force

16. Sliding friction is _____ than static friction. **[1]**

a) More
b) Less
c) Greater
d) Equal

17. The direction of friction is always _____ to the direction in which the object is moving. **[1]**

a) Equal
b) Perpendicular
c) Unrelated
d) Opposite

18. The heat in metals is conducted by the process of **[1]**

a) Conduction
b) Absorption
c) Radiation
d) Convection

19. The sole of shoes becomes flat after using few months because of **[1]**

a) Wearing due to bad quality
b) To buy new shoes
c) Wearing due to friction
d) Wearing due to rough weather

20. What does air resistance do to falling objects? **[1]**

a) Increase its mass
b) Make them rise

c) Slows down them
d) Speeds them up

21. Friction is a **[1]**

a) Contact force acting in same direction
b) Non-contact force in same direction
c) Non-contact force in opposite direction
d) Contact force acting in opposite direction

22. Sonic boom is due to **[1]**

a) Friction between air and supersonic object
b) Gravitational Force between Earth and plane
c) Friction between air and gravitation
d) Attraction between earth and atmosphere

23. When we attempt to move any surface, we apply a force to overcome **[1]**

a) Interlocking between surfaces
b) Gravitational force of earth
c) Electrostatic force between particles
d) Vander wall force between surfaces

24. Friction involves **[1]**

a) Unnecessary expenses of energy
b) Increase the life of machine
c) Reduce the production
d) Reduce the expenses of energy

25. Friction of air can be observed if a falling object is **[1]**

a) Light
b) Small
c) Heavy
d) Large

26. A coin and a feather are dropped from same height, which one will reach first on the ground? **[1]**

a) Depends upon size of coin
b) Both together
c) Coin
d) Feather

27. Which of the following require material medium for propagation? **[1]**

a) Sound
b) Light
c) Transverse wave
d) All of these

28. Which of the following quantities are proportional to each other? **[1]**

a) Frequency and wavelength
b) Amplitude and loudness
c) All of these
d) Time-period and frequency

29. The relation between speed of sound, frequency and wavelength is **[1]**

a) Frequency = speed x speed
b) Wavelength = frequency x speed
c) All of these
d) Speed = frequency × wavelength

30. Which of the following method is used to reduce the noise pollution along roads? **[1]**

a) Planting trees around roads
b) Controlling traffic at road
c) Widening the road
d) Installing sound absorbent

31. An object oscillates 20 times in 1 second. The frequency of the wave produced will be **[1]**

a) 0.2 Hz
b) 20 Hz
c) 15Hz
d) 10 Hz

32. Choose the correct answer: Sound can travel through **[1]**

a) solids, liquids and gases
b) liquids only
c) solids only
d) gases only

33. Speed of sound in sea water is slightly more than distilled water because **[1]**

a) Density of distilled water is more
b) Density of sea water is less
c) Sea is larger in size
d) Density of sea water is more

34. Loudness of sound is proportional to **[1]**

a) Square of frequency
b) Square of the amplitude
c) Amplitude
d) Frequency

35. Different types similar sounds can be differentiated due to **[1]**

a) Difference in amplitude only
b) Difference in quality
c) Difference in amplitude and frequency
d) Difference in frequency only

36. Sound travels faster in solid medium as compared to liquid and gases because **[1]**

a) Particles moves easily
b) Intermolecular force is weak
c) Particles are away from each other
d) Particles of solid are very close

37. Sound can travel through **[1]**

a) Solid only
b) Solids, liquids and gases
c) Liquid only
d) Gases only

38. Lightening and thunder occurs together but lightening is seen earlier than sound as **[1]**

a) The sound produced is inaudible
b) Sound travels in absence of light
c) Light do not require medium for propagation
d) Light travels faster than sound

39. Time-period of a wave is 0.01 seconds than its frequency is **[1]**

a) 10000 Hz
b) 10 Hz
c) 100 Hz
d) 1000 Hz

40. If the thunder is heard by a man 4 seconds after the lightening is seen. How far is the lightening from man? (Speed of sound in air is 330m/s) **[1]**

a) 1320 m
b) 1230 m
c) 1420 m
d) 330 m

Solution

Class 08 - Science

MOCK TEST JANUARY- 2021

1. **(b)** Pull the rope in opposite direction
   Explanation: In a game of tug-of war, two teams pull the rope in opposite direction. As the two teams are acting in opposite directions, they will balance each other and there is no net force acting on the rope. As soon as one team applies stronger force and pulls the rope toward itself, the team becomes the winner.
2. **(c)** Acceleration
   Explanation: The rate of change in velocity is called acceleration. Acceleration is a vector quantity and has both magnitude and direction.An object's acceleration is the net result of all forces acting on the object.
3. **(b)** Friction
   Explanation: Wheels of vehicle is stopped by using brake that works on property of friction. We deliberately increase friction by using brake pads in the brake system and arrest the motion of the rim and finally the wheel, which helps in slowing and stopping the vehicle.
4. **(a)** 20 N
   Explanation: Here, Mass of the body = 10kg
   Acceleration= 2m/s sq
   Force= Mass x Acceleration =10kg x 2m/s sq = 20N.
5. **(b)** 20 N
   Explanation: Here, Acceleration = 5m/s sq
   Mass of the body = 4kg.
   Force = Mass x Acceleration =4kg x 5m/s sq = 20N.
6. **(d)** Change in mass
   Explanation: Force can change the state of motion, the shape and size of object and change the state of motion but can never change the mass of the body.Force is the product of mass and acceleration.
7. **(a)** Use of ball bearings
   Explanation: Ball bearings reduces friction of moving parts in a machine. So, sliding friction is replace by rolling friction. Ball bearings are spheres that are held in a track. They are used between a wheel and a fixed axle or between a wheel- axle and a vehicle shaft. They are used to provide better linear motion or rotation around a fixed axis.
8. **(c)** 10 Pa
   Explanation: Here, Force exerted by the box on ground = 20N
   Area of the ground the box covers = 2 sq m
   Since, Pressure = Force/ Area.
   Pressure exerted by the box on the ground = 20N / 2 sq m = 10Pa.
9. **(d)** 1kg x 1m
   Explanation: One Newton is equal to 1gm x 1m. One newton of force is the force required to accelerate an object with a mass of 1kg to a distance of one meter.
10. **(b)** Thrust
    Explanation: The perpendicular force acting per unit area is called Thrust. S.I. unit of thrust is Newton.
11. **(d)** 3246.75 Pa
    Explanation: Here, Force = 50 N
    Radius of circular plate = 7cm
    Area of a circle = π r sq= $3.14 \times 7 \times 7$ = 154 cm sq = 154/10000 m sq = 0.0154 m sq.
    Pressure = Force/Area = 50N/0.0154 m sq = 3246.75 Pa
12. **(c)** At atmospheric pressure
    Explanation: Astronauts wear special suits when they go into space because pressure inside the suit is maintained at atmospheric pressure on earth. As there is less atmospheric pressure in space to maintain the equilibrium astronauts wear special suits.

13. **(d)** Speed
Explanation: A force applied on an object may change its speed. When force is applied in direction of motion speed will increase and if the force is applied in a direction, opposite to its motion, the speed decreases.

14. **(d)** Moving object
Explanation: The force of friction always acts on all moving objects due to contact between the two surfaces. Object moving in air, water, or on surface experiences friction.

15. **(a)** Frictional force
Explanation: Magnetic force, gravitational force and electrostatic force are example of non-contact force while frictional force is an example of contact force because it arise only when two surfaces are in contact to each other.

16. **(b)** Less
Explanation: Sliding friction is less than static friction. When an object slides its surface didn't get enough time to be in contact with the surface of other due to which it becomes easier to slide the object.

17. **(d)** Opposite
Explanation: The direction of friction is always opposite to the direction in which the object is moving. This opposite force is useful in case of walking, cycling, etc but harmful in case of wearing and tearing of shoes.

18. **(a)** Conduction
Explanation: The process of heat transfer in which particles transfer heat one after the other in contact is called conduction. The heat in metals is conducted by the process of conduction because molecules in solid are tightly packed. they just transfer their energy to adjacent molecule without leaving their place.

19. **(c)** Wearing due to friction
Explanation: The sole of shoes becomes flat after using few months because of wearing due to friction. There is friction between road and sole of shoe constantly which leads to flatness of the shoe sole with time.

20. **(c)** Slows down them
Explanation: Air resistance slows down the falling object as it increase with the increase in surface area of the object and acts against the gravitational force due to which it slows down the speed of object to fall down

21. **(d)** Contact force acting in opposite direction
Explanation: Friction is a contact force acting in opposite direction of moving body. Friction is created when one body moves over the surface of another body in contact to each other.

22. **(a)** Friction between air and supersonic object
Explanation: When a body moves with speed greater than speed of sound craking sound is produced in air called sonic boom. Sonic boom is due to friction between air and supersonic objects.

23. **(a)** Interlocking between surfaces
Explanation: When we attempt to move any surface, we apply a force to overcome interlocking between the surfaces called static friction present due to irregularities on the surface.

24. **(a)** Unnecessary expenses of energy
Explanation: Friction involves unnecessary expenses of energy because due to friction heat is generated which leads to more consumption of energy or fuel.

25. **(a)** Light
Explanation: Friction of air can be observed if a falling object is light. When a tiny paper or feather falls from height, it takes long duration due to friction of air on it.

26. **(c)** Coin
Explanation: When a coin and a feather are dropped from same height, the coin will reach first on the ground. Due to more friction on feather as it is lighter and has more surface area as compare to coin.

27. **(a)** Sound
Explanation: Sound require material medium for its propagation which may be solid, liquid or gaseous in

nature. Light can travel in vacuum as no medium is required.

28. **(b)** Amplitude and loudness
Explanation: Loudness of sound depends upon amplitude of sound waves. Loudness of sound is proportional to amplitude of sound.

29. **(d)** Speed = frequency × wavelength
Explanation: Speed of sound is equal to product of frequency and wavelength. Speed = frequency × wavelength.

30. **(a)** Planting trees around roads
Explanation: To reduce noise pollution along roads, planting trees around roads is used. Plants are a good absorber of sound and reduce carbon dioxide concentration.

31. **(b)** 20 Hz
Explanation: The object oscillating 20 times in one second will have frequency of 20 Hz as number of oscillation or vibration per second is called frequency.

32. **(a)** solids, liquids and gases
Explanation: Sound needs a medium through which it can travel. Sound cannot travel through a vacuum. Sound can travel through solid, liquid, and gases.

33. **(d)** Density of sea water is more
Explanation: Speed of sound increase with increase density. So, the speed of sound in sea water is slightly more than distilled water because density of sea water is more due to presence of salts.

34. **(b)** Square of the amplitude
Explanation: Loudness of sound is proportional to square of the amplitude. When amplitude is doubled, loudness increases four times.

35. **(c)** Difference in amplitude and frequency
Explanation: Different kinds of similar sounds can be differentiated due to difference in amplitude and frequency. Pitch of different persons is also different

36. **(d)** Particles of solid are very close
Explanation: Sound travels faster in solid medium as compared to liquid and gases because particles of solid are very close to each other.

37. **(b)** Solids, liquids and gases
Explanation: Sound require material medium for its propagation. The medium may be solid, liquid or gases. Sound travel faster in solid medium than gaseous and liquid medium.

38. **(d)** Light travels faster than sound
Explanation: Lightening and thunder occurs together but lightening is seen earlier than sound because light travel much faster than sound.

39. **(c)** 100 Hz
Explanation: Time-period of a wave is 0.01seconds then
Frequency=1 ÷ Time period
Frequency= 1 ÷ 0.01
Frequency= 100 Hz

40. **(a)** 1320 m
Explanation: Speed of sound = 330 m/s, time = 4 seconds. Distance= speed × time = 330 m/s × 4 = 1320m. so, lightening occurs at a distance of 1320m.

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 08 - ENGLISH

ENGLISH MCQ JANUARY_2021

Time Allowed: 30 minutes **Maximum Marks: 40**

1. Who as Penny in the lesson **This is Jodys Fawn?** **[1]**

   a) the author b) Jody’s mother

   c) Jody’s father d) the fawn

2. According to Penny, how would a fawn follow somebody, as mentioned in the prose **This is Jody's Fawn**? **[1]**

   a) If it has been fed first b) If it has been carried first

   c) If it has been trained first d) If it had been captured first

3. In the prose **This is Jody's Fawn,** why was the fawn alone in the forest? **[1]**

   a) Because its mother was adopted by a family b) Because Jody and Penny killed its mother

   c) Because its mother had run away d) Because its mother was captured

4. What did Jody feed the fawn in the prose **This is Jody's Fawn**? **[1]**

   a) Acorns b) Milk

   c) Leaves d) Fruits

5. Who made the following statement **Nothing in the world comes quite free** in the prose **This is Jody's Fawn**? **[1]**

   a) Jody b) Penny

   c) Doc Wilson d) Baxter

6. Who is Baxter, in the prose **This is Jody's Fawn**? **[1]**

   a) The doctor b) Jody's mother

   c) Jody's father d) Jody's friend

7. Whom was Jody worried about in the prose **This is Jody's Fawn**? **[1]**

   a) The fawn b) His father

   c) His mother d) The doe

8. Who taught Jody to differentiate between a male fawn and a female fawn in the prose **This is Jody's Fawn**? **[1]**

   a) His mother b) Mill

   c) Doc Wilson d) His father

9. Who helped Jody reach the forest to find the fawn in the prose **This is Jody's Fawn**? **[1]**

a) Penny
b) Wilson
c) Baxter
d) Mill

10. Why did Jody want to search for the fawn alone in the prose **This is Jody's Fawn**? **[1]**

a) He didn't want Mill to know the truth
b) He thought that the fawn may get scared
c) He didn't want to share the moment with him
d) He intended to go elsewhere with the fawn

11. Which profession did Stephen Hawking pursue in his life? **[1]**

a) Teacher
b) Scientist
c) Architect
d) Doctor

12. What was the narrator's metaphor for England as mentioned in the prose **A Visit to Cambridge**? **[1]**

a) Cambridge
b) Liverpool
c) Oxford
d) Manchester

13. Stephen Hawking was suffering from which disease? **[1]**

a) Paralysis
b) Polio
c) Malaria
d) Tuberculosis

14. Who succeeded Issac Newton's Chair at the university, as mentioned in the prose **A Visit to Cambridge**? **[1]**

a) Stephen Hawking
b) Firdaus Kanga
c) Robert Boyle
d) Albert Einstein

15. Who remarked the following: **[1]**
People often thought that disabled people were unhappy people.

a) John Berryman
b) Firdaus Kanga
c) Stephen Hawking
d) G.L Fuentes

16. What can you discover being a differently-abled person as mentioned by Firdaus Kanga in the prose **A Visit to Cambridge**? **[1]**

a) Cruelty among people
b) Indifference in people's thoughts
c) Kindness in the world
d) Selfishness in the world

17. Who is the author of the book **A Brief History of Time** as we know from the prose **A Visit to Cambridge**? **[1]**

a) Stephen Hawking
b) Firdaus Kanga
c) Issac Newton
d) Albert Einstein

18. Who made the following remark - I haven't been brave - in the prose **A Visit to Cambridge**? **[1]**

a) Stephen Hawking
b) Issac Newton
c) Firdaus Kanga
d) Albert Einstein

19. Who is the author of the chapter, **A Visit to Cambridge?** **[1]**

a) William Shakespeare
b) Stephen Hawking
c) Firdaus Kanga
d) Ruskin Bond

20. According to the narrator of the prose **A Visit to Cambridge**, what makes a disabled person feel stronger? **[1]**

a) Watching a similar person succumb to the world
b) Watching a similar person live the same way
c) Watching a similar person achieve huge success
d) Watching a similar person go through the distress

21. **The rime was on the spray;** **[1]**
And starlit lit my lonesomeness
What does the word **rime** stand for in the given lines?

a) Hailstones
b) Frost
c) Lightening
d) Thunderstorm

22. How were the ambient conditions when the poet began his journey to Lyonnesse? **[1]**

a) It was very windy
b) It was very cold
c) It was very warm
d) It was drizzling

23. What kind of place is Lyonnesse? **[1]**

a) A sacred place
b) A remote valley
c) A rural place
d) A metropolitan

24. Why did the poet visit Lyonnesse? **[1]**

a) To supervise renovation work in the church
b) To enjoy the work
c) To meet a friend
d) To worship

25. Who composed the poem, **When I set out for Lyonnesse**? **[1]**

a) Ruskin Bond
b) Robert Frost
c) Thomas Hardy
d) William Shakespeare

26. What were the leaves covered with during the poet's journey to Lyonnesse? **[1]**

a) Dirt
b) Dust
c) Rust
d) Frost

27. In which town was the pool discovered by Ranji? **[1]**

a) Rampur
b) Ranchpur
c) Rajpur
d) Raipur

28. Where did Ranji discover the pool during the height of summer? **[1]**

a) in the park
b) near the school
c) in the forest
d) in the city

29. How long had Ranji been in Rajpur when he discovered the pool in the plot, **The fight**? **[1]**

a) Less than a month
b) Less than an year
c) More than a month
d) More than a year

30. How were the pools in Rajputana village? **(The Fight)** **[1]**

a) Dried up
b) Muddy and sticky
c) Icy cold
d) Sparkling clean

31. How was the weather when Ranji discovered the pool? **[1]**

a) It was very pleasant
b) Extremely hot
c) It was wet and humid
d) Bitterly cold

32. What did Ranji intend to throw at Suraj, when he spotted him in the market? **[1]**

a) The plate full of jalebis
b) Stones
c) Twigs and sticks
d) The lemonade bottle

33. Where did Ranji reside before he came to stay at Rajpur? **[1]**

a) In the coastal area of Bengal
b) A town in the Rajputana desert
c) In a metropolitan city
d) In the Doon valley

34. if you teach me to dive and swim underwater, I will make you a pahelwan. Who told this to Ranji? **[1]**

a) Suraj
b) Ranji's school friend
c) Kamal
d) Mohan

35. How was the boy's behaviour towards Ranji when he noticed Ranji for the first time besides the pool? **[1]**

a) Amicable
b) Flattering
c) Indifferent
d) Hostile

36. Whom did Ranji meet at the pool? **[1]**

a) His school teacher
b) A saint
c) An unknown boy
d) His school friend

37. Choose the correct noun: **[1]**
We like large <u>bottles</u> of mineral water.

a) Abstract
b) Uncountable
c) Countable
d) Collective

38. In the given sentence, which among the following is a noun functioning as an adjective? **[1]**
Perhaps what caught my eyes more than the festivities was the beautiful solitary flower girl sitting outside the temple with her basket full of fragrant roses, golden marigolds, and pretty lilies.

a) fragrant
b) flower
c) eyes
d) beautiful

39. Choose the correct articles for the below sentence: **[1]**

Look at _____ woman over there! She is _____ famous actress.

a) a, the

b) a, a

c) the, a

d) the, the

40. Choose the correct helping verb: **[1]**

Tara _____ called yet; she's late as usual.

a) hasn't

b) are

c) were

d) has

Solution

Class 08 - English

ENGLISH MCQ JANUARY_2021

1. **(c)** Jody’s father
   Explanation: Penny was Jody’s father
2. **(b)** If it has been carried first
   Explanation: Penny had told Jody earlier that a fawn would follow a person if it had been carried first by the same person. Jody remembered his father's words and tried to make the fawn follow him because it was too exhausting to carry him throughout his way back home. Relievingly, the fawn did follow him after it has been carried for the second time by Jody.
3. **(b)** Because Jody and Penny killed its mother
   Explanation: Jody and Penny had to kill the doe which was the fawn's mother to save Penny's life. Penny was bit by a snake, so they had to kill the doe and used its liver to draw the poison out.
4. **(b)** Milk
   Explanation: Jody had stored some milk for the fawn before he left to find it. He fed the fawn the milk that had been stored because he did not have anything else to feed the fawn.
5. **(c)** Doc Wilson
   Explanation: Jody's mother was surprised to hear his wish to bring the fawn at their place and raise it to which Doctor Wilson said that he was quite right in wishing that. They had killed its mother to save Penny and deprived the fawn of its mother. So they should adopt the fawn because nothing in the world comes quite free.
6. **(b)** Jody's mother
   Explanation: Jody's mother has been referred to as Ma-Baxter in the prose. Hence, Jody's mother is identified by the name of Baxter.
7. **(a)** The fawn
   Explanation: Jody was worried about the fawn that was left alone in the forest. It had been deprived of its mother by them and so he wanted to raise it.
8. **(d)** His father
   Explanation: Jody's father had taught him to differentiate between a fawn and a doe-fawn. Pa had said that on a fawn, the spots were all in a line. On the contrary, in a doe-fawn, the spots were everywhere.
9. **(d)** Mill
   Explanation: Jody rode with Mill on his horseback to reach the forest and search for the fawn that he had seen there the previous day.
10. **(c)** He didn't want to share the moment with him
    Explanation: Jody was all of a sudden unwilling to let Mill accompany him. He wanted the moment to be his own in every way. If the fawn was found to be dead, he didn't want his disappointment to be seen. On the contrary, if the fawn was alive, he wanted the moment to be a blissful secret experience between him and the fawn.
11. **(b)** Scientist
    Explanation: Stephen Hawking was a Scientist by his profession. He was a genius personality and a great human being.
12. **(a)** Cambridge
    Explanation: The narrator begins the prose by stating that Cambridge was his metaphor for England.
13. **(a)** Paralysis
    Explanation: Stephen Hawking was suffering from Paralysis. He was differently-abled.
14. **(a)** Stephen Hawking
    Explanation: The narrator was on a walking tour in Cambridge when it was mentioned there that the

famous astrophysicist Stephen Hawking was a worthy successor of Sir Issac Newton's Chair at the university.

15. **(b)** Firdaus Kanga
Explanation: Firdaus Kanga remarked the above statement in respect of all the disabled people around him. He further meets Stephen Hawking to know better about disabled people.

16. **(c)** Kindness in the world
Explanation: The narrator of the prose had observed that the best thing about being a disabled person was that one can discover the amount of kindness that existed in the world.

17. **(a)** Stephen Hawking
Explanation: The book titled A Brief History of Time was written by one of the greatest astrophysicist and author Stephen Hawkings.

18. **(a)** Stephen Hawking
Explanation: Disabled people are often told to be brave, but Stephen Hawking said that he had not been brave.

19. **(c)** Firdaus Kanga
Explanation: The author of chapter **A Visit to Cambridge** is Firdaus Kanga.

20. **(c)** Watching a similar person achieve huge success
Explanation: The narrator said that the disabled, whom we now regard more often as differently abled, are often annoyed with people asking them to be brave. The real strength comes from watching someone similar to them achieving a huge success in life.

21. **(b)** Frost
Explanation: The word, 'rime' means frost. The poet set out for Lyonnesse on a starlit winter night when the frost had layered all over.

22. **(b)** It was very cold
Explanation: The weather was cold and chilly when the poet commenced his journey to Lyonnesse.

23. **(a)** A sacred place
Explanation: Lyonnesse is a mythical place referred to in the legend of King Arthur. The poet used the place to create an air of magic and mysticism in the poem.

24. **(a)** To supervise renovation work in the church
Explanation: Thomas Hardy was an apprentice architect when he wrote this poem. He visited the church for some restoration work.

25. **(c)** Thomas Hardy
Explanation: The poem was written by **Thomas Hardy**. The poet shared his experience with an imaginary place, Lyonnesse in the poem.

26. **(d)** Frost
Explanation: The poet highlighted the fact that it was a cold and chilly night by stating that the leaves were layered all over with frost when he set out for Lyonnesse.

27. **(c)** Rajpur
Explanation: Ranji discovered the pool in the forests of Rajpur, a semi-hill station. Ranji while wandering about the hills and forests that stretched away endlessly on all sides of the town spotted the pool, one fine day.

28. **(c)** in the forest
Explanation: He discoved the pool in the forest.

29. **(a)** Less than a month
Explanation: Ranji had been less than a month in Rajpur when he discovered the pool in the midst of the forest.

30. **(b)** Muddy and sticky
Explanation: The pools in Rajputana village were sticky, muddy pools, where buffaloes wallowed and women washed clothes.

31. **(b)** Extremely hot
Explanation: Ranji discovered the pool when it was the peak of summer and the weather was extremely hot.

32. **(d)** The lemonade bottle
Explanation: Ranji had just finished the lemonade when he spotted his adversary coming down the street in the market. He wished to throw that lemonade bottle in a fit of rage at his foe but somehow managed to control.

33. **(b)** A town in the Rajputana desert
Explanation: Ranji had lived with his parents in an arid town in the middle of the Rajputana desert.

34. **(a)** Suraj
Explanation: Suraj told this to Ranji.

35. **(d)** Hostile
Explanation: The boy stared at Ranji in a very hostile manner when he noticed him beside the pool. He spoke in a rude and aggressive manner with Ranji and was reluctant to share the pool with him.

36. **(c)** An unknown boy
Explanation: Ranji noticed an unknown boy standing a little distance away, staring at him when he visited the pool the very next day after he discovered it in the forest.

37. **(c)** Countable
Explanation: Countable

38. **(b)** flower
Explanation: flower

39. **(c)** the, a
Explanation: the, a

40. **(a)** hasn't
Explanation: hasn't

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 08 - हिंदी (वसंत और भारत की खोज)

Hindi Multiple Choice Questions Test (January) 2020-21

Time Allowed: 30 minutes **Maximum Marks: 40**

1. झाड़ू देने से पहले जरा-सा पानी क्यों छिड़क देना चाहिए? **[1]**

   a) शगुन के लिए
   b) इनमें से कोई नहीं
   c) कीचड़ बनाने के लिए
   d) जिससे धूल न उड़े

2. **कामचोर** कहानी के अनुसार नौकरों को घर से निकालने का निर्णय क्यों लिया गया? **[1]**

   a) बच्चों के आलस को दूर करने के लिए
   b) नौकरों को सबक सिखाने के लिए
   c) घर के खर्च को कम करने के लिए
   d) नौकर घर में बहुत चोरियाँ करते थे

3. दूध निकालने की जल्दबाजी में भैस के चार थनों पर कितने हाथ पिल पड़े? **कामचोर** पाठ के आधार पर बताए। **[1]**

   a) बारह हाथ
   b) आठ हाथ
   c) दो हाथ
   d) चार हाथ

4. **कामचोर** पाठ में कीचड़ में लथपथ बच्चों को नहलाने के लिए घर के नौकरों की संख्या कम पड़ गई। इस काम के लिए कहाँ से और नौकर आए? **[1]**

   a) किराये पर
   b) नौकरों के घर वालों को बुलाया
   c) पास के बंगलों से
   d) इनमें से कोई नहीं

5. कीचड़ में लथपथ बच्चों को नहलाने के लिए घर के नौकरों की संख्या कम पड़ गई। इस काम के लिए कहाँ से और नौकर आए? **[1]**

   a) पास के बँगलो से
   b) शहर से
   c) गॉंव से
   d) लेबर चौक अर्थात बाज़ार से

6. नौकरों को निकालने का फैसला किनके बीच वाद-विवाद के बाद लिया गया? **कामचोर** पाठ के आधार पर बताए। **[1]**

   a) दादा और दादी के बीच
   b) बुआ और दादी के बीच
   c) अम्मा और अब्बा के बीच
   d) चाचा और पिता के बीच

7. दाने के सूप के पीछे भागती भेड़ें तख्त पर चढ़ गई। उस समय तख्त पर किसका दुपट्टा फैला हुआ था? **कामचोर** पाठ के आधार पर बताए। **[1]**

   a) बड़ी दीदी का
   b) हज्जन माँ का
   c) चाची का
   d) बानो दीदी का

8. **कामचोर** नामक कहानी का कहानीकार निम्नलिखित में से कौन है? **[1]**

   a) हजारी प्रसाद द्विवेदी
   b) अरविन्द कुमार सिंह
   c) इस्मत चुगताई
   d) रामधारी सिंह 'दिनकर'

9. **कामचोर** कहानी के आधार पर स्पष्ट कीजिए कि बड़ों ने बच्चों को काम करने का आदेश क्यों दिया? **[1]**

   a) नौकरों का खर्च बचाने के लिए
   b) बच्चों पर रौब जमाने के लिए

c) उन्हें आत्मनिर्भर बनाने के लिए
d) घरवालों की सेवा के लिए

10. नौकरों ने प्रति बच्चे को नहलाने के लिए किस हिसाब से पैसे लिए? **[1]**

a) दस आने
b) चार आने
c) आठ आने
d) बारह आने

11. भारतीय सवाक् फिल्मों का पिता किनको कहा गया था? **[1]**

a) जगदीश सेठी
b) अर्देशिर एम. ईरानी
c) पृथ्वीराज कपूर
d) मोहम्मद अली जिन्ना

12. 14 मार्च, 1931 की वह ऐतिहासिक तारीख भारतीय सिनेमा के लिए बड़े _____ का दिन था। **[1]**

a) अलगाव
b) सुलझाव
c) बदलाव
d) विलगाव

13. भारत की पहली सवाक(बोलती) फ़िल्म निम्नलिखित में से कौन-सी थी? **[1]**

a) आलम आरा
b) एक बेचारा
c) मुगल-ए-आज़म
d) जहाँ आरा

14. पहली सवाक फ़िल्म के फ़िल्मकार को यह फ़िल्म बनाने की प्रेरणा निम्नलिखित में से किस फ़िल्म को देखकर मिली? **[1]**

a) गो-बोट फ़िल्म
b) रो-बोट फ़िल्म
c) इनमे से कोई नहीं
d) शो-बोट फ़िल्म

15. **जब सिनेमा ने बोलना सीखा** पाठ के लेखक निम्नलिखित में से कौन है? **[1]**

a) रामचंद्र तिवारी
b) प्रदीप तिवारी
c) इस्मत चुगताई
d) हरिशंकर परसाई

16. उस समय सर्वाधिक पारिश्रमिक पानेवाले विट्ठल का चयन नायक के लिए होने के बाद भी क्यों हटाया गया? **जब सिनेमा ने बोलना सीखा** पाठ के आधार पर बताए। **[1]**

a) उन्हें उर्दू बोलने में मुश्किल होती थी
b) वे अपने स्टंट के लिए डुप्लीकेट से काम कराते थे
c) उनको गाना नहीं आता था
d) वे हकलाकर बोलते थे

17. डब्ल्यू एम खान प्रथम सवाक फ़िल्म से किस रूप में जुड़े थे? **[1]**

a) गीतकार के रूप में
b) कैमरामैन के रूप में
c) संगीतकार के रूप में
d) पार्श्वगायक के रूप में

18. **आलमआरा** भारत की पहली _____ फिल्म थी। 'जब सिनेमा ने बोलना सीखा' पाठ के आधार पर बताइए। **[1]**

a) मूक
b) रंगीन
c) सवाक्
d) सामाजिक

19. पहली सवाक फ़िल्म में संगीत के लिए मात्र तीन वाद्य यंत्रो का प्रयोग किया गया। पहला था तबला, दूसरा था हारमोनियम तो तीसरा वाद्य यंत्र निम्नलिखित में से कौन-सा था? **[1]**

a) पियानो
b) सितार
c) वायलिन
d) गिटार

20. आलम आरा फिल्म कब बनी और सर्व प्रथम कहाँ प्रदर्शित हुई? **[1]**

a) इनमे से कोई नहीं
b) 1925 में पूना के मैजेस्टिक सिनेमा में

c) 1920 में दिल्ली के मैजेस्टिक सिनेमा में
d) 14 मार्च, 1931 मुंबई के मैजेस्टिक सिनेमा में

21. **घर-घर कर ओड़त फिरे** के अनुसार कृष्ण निम्नलिखित में से किसके लिए कर ओड़ते फिरते थे? **[1]**

a) मक्खन के लिए
b) दूध के लिए
c) दही के लिए
d) घी के लिए

22. 'वाही पठ्यो ठेली' में वाही शब्द किसके लिए प्रयोग हुआ है? **[1]**

a) सुदामा की पत्नी के लिए
b) गोपियों के लिए
c) इनमे से कोई नहीं
d) कृष्ण की पत्नी के लिए

23. सुदामा की पत्नी ने उपहारस्वरूप पोटली में कुछ दिया था। उस पोटली में निम्नलिखित में से क्या था? **[1]**

a) इनमे से कोई नहीं
b) मिष्ठान
c) तंदुल
d) चने

24. **सुदामा चरित** कविता के भाव के अनुसार **चोरी की बान** में कौन प्रवीण था? **[1]**

a) सुदामा की पत्नी
b) द्वारपाल
c) सुदामा
d) श्रीकृष्ण

25. किसके कारण सुदामा बेहाल हो रहे थे? **[1]**

a) अस्थि रोग के कारण
b) बिवाइयों के कारण
c) क्षय रोग के कारण
d) चर्म रोग के कारण

26. 'उपानह' शब्द का पर्यायवाची कौन-सा है? **[1]**

a) चप्पल
b) मोज़े
c) पगड़ी
d) जूते

27. कृष्ण ने सुदामा द्वारा लाए गए उपहार को किसमे भीना हुआ बताया है? **[1]**

a) इनमे से कोई नहीं
b) सोम रस में
c) आम रस में
d) सुधा रस में

28. सुदामा अंदर ही अंदर कृष्ण से नाराज़ क्यों थे? **[1]**

a) कृष्ण ने उनसे खाने-पीने के लिए नहीं पूछा
b) उन्होंने सुदामा की कोई सहायता नहीं की थी
c) कृष्ण उनसे मिलने नहीं आए
d) कृष्ण ने उनका स्वागत नहीं किया था

29. **सुदामा चरित** कविता के अनुसार सुदामा द्वारिका में क्यों आए थे? **[1]**

a) श्रीकृष्ण को अपनी आर्थिक अवदशा बताने हेतु
b) श्रीकृष्ण के दर्शन करने हेतु
c) मित्र श्रीकृष्ण का हाल-चाल देखने हेतु
d) श्रीकृष्ण से कुछ सहायता प्राप्त करने हेतु

30. **प्रभु! जाने को आहि** कविता की इस प्रथम पंक्ति में **प्रभु** के माध्यम से किसे संबोधित किया गया है? **[1]**

a) भगवान को
b) इंद्र को
c) श्री कृष्ण को
d) राम को

31. 'अर्थशास्त्र' कृति के लेखक कौन है? **[1]**

a) पाणिनी
b) कौटिल्य
c) वाल्मिकी
d) तुलसी

32. भारत के दो प्रमुख महाकाव्यों के नाम बताइए। **[1]**

a) महाभारत व गीता
b) रामायण व कवितावली
c) रामायण व गीता
d) रामायण व महाभारत

33. चन्द्रगुप्त मौर्य कहाँ के रहने वाले थे? **[1]**

a) तक्षशिला
b) मगध
c) पाटलिपुत्र
d) इंद्रप्रस्थ

34. भौतिक साहित्य किस पर लिखा गया है? **[1]**

a) इनमे से कोई नहीं
b) भोजपत्र व ताड़पत्रों पर
c) पेड़ों की छाल पर
d) ग्रंथों में

35. भारत की प्राचीन लिपि का नाम लिखिए। **[1]**

a) देवनागरी
b) संस्कृत
c) इनमे से कोई नहीं
d) ब्राह्मी लिपि

36. 'महाभारत' ग्रंथ का मुख्य अंश कौन सा है? **[1]**

a) कवितावली
b) भगवदगीता
c) दोहावली
d) रामायण

37. किन दो जातियों के आधार पर भारतीय संस्कृति का निर्माण हुआ? **[1]**

a) द्रविड़ या आर्य जाती
b) मराठे व मुसलमान
c) इनमे से कोई नहीं
d) हिन्दू-मुसलमान

38. बुद्ध ने घृणा का अंत किस प्रकार करने को कहा? **[1]**

a) विरोध से
b) घृणा से
c) प्रेम से
d) मेल-जोल न रखकर

39. 'सार्वभौमिकता' शब्द का क्या अर्थ है? **[1]**

a) सबके लिए उपयोगी
b) सब द्वारा चुना हुआ
c) सबके लिए
d) सार्वजनिक रूप से सर्वश्रेष्ठ

40. **महाभारत** किस विशेषता के कारण विश्व प्रसिद्ध माना जाता है? **[1]**

a) यह विशेष वर्ग को नहीं अपितु संपूर्ण विश्व के लोकमंगल की कामना करता है।
b) यह अत्यधिक प्राचीन है।
c) इसे सभी देश के लेखकों ने मिलकर लिखा।
d) इसका रूपांतरण विभिन्न भाषाओं में है।

Solution

Class 08 - हिंदी (वसंत और भारत की खोज)

Hindi Multiple Choice Questions Test (January) 2020-21

1. **(d)** जिससे धूल न उड़े
   Explanation: जिससे धूल न उड़े
2. **(a)** बच्चों के आलस को दूर करने के लिए
   Explanation: घर में नौकरों के रहते बच्चे छोटे से छोटा काम भी खुद नहीं करते थे और नौकरों से ही करवाते थे। इसलिए उनके काम करने के आलस को दूर करने के लिए और उन्हें कुछ हद तक आत्मनिर्भर बनाने के लिए नौकरों को घर से निकालने का निर्णय लिया गया।
3. **(b)** आठ हाथ
   Explanation: आठ हाथ
4. **(c)** पास के बंगलों से
   Explanation: पास के बंगलों से
5. **(a)** पास के बँगलो से
   Explanation: पास के बँगलो से
6. **(c)** अम्मा और अब्बा के बीच
   Explanation: अम्मा और अब्बा के बीच
7. **(d)** बानो दीदी का
   Explanation: बानो दीदी का
8. **(c)** इस्मत चुगताई
   Explanation: इस्मत चुगताई
9. **(c)** उन्हें आत्मनिर्भर बनाने के लिए
   Explanation: कहानी के अनुसार बड़े लोग चाहते थे कि बच्चों का आलस दूर हो और वे कुछ काम करना सीखे जिससे वे आत्मनिर्भर बन सके। इसीलिए उन्होंने बच्चों को काम करने का आदेश दिया।
10. **(b)** चार आने
    Explanation: चार आने
11. **(b)** अर्देशिर एम. ईरानी
    Explanation: आलम आरा फिल्म के प्रदर्शन के 25 वर्ष पूरे होने पर 1956 में एक कार्यक्रम आयोजित किया गया था। जिसमें अर्देशिर एम. ईरानी को भारतीय सवाक फिल्मों का पिता कहा गया था और उन्हें सम्मानित किया गया था।
12. **(c)** बदलाव
    Explanation: बदलाव
13. **(a)** आलम आरा
    Explanation: आलम आरा
14. **(d)** शो-बोट फ़िल्म
    Explanation: शो-बोट फ़िल्म
15. **(b)** प्रदीप तिवारी
    Explanation: प्रदीप तिवारी
16. **(a)** उन्हें उर्दू बोलने में मुश्किल होती थी
    Explanation: उन्हें उर्दू बोलने में मुश्किल होती थी
17. **(d)** पार्श्वगायक के रूप में
    Explanation: पार्श्वगायक के रूप में
18. **(c)** सवाक्
    Explanation: आलम आरा फिल्म से पहले भारत में मूक फिल्में बनती थी। आलम आरा भारत की पहली सवाक् फ़िल्म थी।
19. **(c)** वायलिन
    Explanation: वायलिन
20. **(d)** 14 मार्च, 1931 मुंबई के मैजेस्टिक सिनेमा में
    Explanation: 14 मार्च, 1931 मुंबई के मैजेस्टिक सिनेमा में

21. **(c)** दही के लिए
Explanation: दही के लिए

22. **(a)** सुदामा की पत्नी के लिए
Explanation: सुदामा की पत्नी के लिए

23. **(c)** तंदुल
Explanation: तंदुल

24. **(c)** सुदामा
Explanation: 'सुदामा चरित' कविता में कृष्ण-सुदामा के बचपन का प्रसंग वर्णित किया गया है, जिसमें गुरुमाता के द्वारा दिए हुए चने सुदामा अकेले ही चोरी-छिपे खा जाते थे, इसलिए कृष्ण ने सुदामा को कहा कि तुम पहले से ही चोरी की कला में निपुण हो।

25. **(b)** बिवाइयों के कारण
Explanation: बिवाइयों के कारण

26. **(d)** जूते
Explanation: जूते

27. **(d)** सुधा रस में
Explanation: सुधा रस में

28. **(b)** उन्होंने सुदामा की कोई सहायता नहीं की थी
Explanation: उन्होंने सुदामा की कोई सहायता नहीं की थी

29. **(d)** श्रीकृष्ण से कुछ सहायता प्राप्त करने हेतु
Explanation: कविता के वर्ण्य विषय के अनुसार निर्धनता से तंग आकर सुदामा की पत्नी ने सुदामा को अपने मित्र श्रीकृष्ण से कुछ सहायता माँगने हेतु द्वारिका भेजा था। सुदामा इसी आशा में द्वारिका आए थे कि उनका मित्र श्रीकृष्ण उनकी कुछ सहायता करेंगे।

30. **(a)** भगवान को
Explanation: भगवान को

31. **(b)** कौटिल्य
Explanation: कौटिल्य

32. **(d)** रामायण व महाभारत
Explanation: रामायण व महाभारत

33. **(b)** मगध
Explanation: मगध

34. **(b)** भोजपत्र व ताड़पत्रों पर
Explanation: भोजपत्र व ताड़पत्रों पर

35. **(d)** ब्राह्मी लिपि
Explanation: ब्राह्मी लिपि

36. **(b)** भगवदगीता
Explanation: भगवदगीता

37. **(a)** द्रविड़ या आर्य जाती
Explanation: द्रविड़ या आर्य जाती

38. **(c)** प्रेम से
Explanation: प्रेम से

39. **(d)** सार्वजनिक रूप से सर्वश्रेष्ठ
Explanation: सार्वजनिक रूप से सर्वश्रेष्ठ

40. **(a)** यह विशेष वर्ग को नहीं अपितु संपूर्ण विश्व के लोकमंगल की कामना करता है।
Explanation: यह विशेष वर्ग को नहीं अपितु संपूर्ण विश्व के लोकमंगल की कामना करता है।

ATOMIC ENERGY CENTRAL SCHOOL NO.4 Rawatbhata

MCQ Examination September (2020-2021)

CLASS 08 - MATHEMATICS

MCQ Test January

Time Allowed: 40 minutes **Maximum Marks: 40**

1. Which of the following are tike terms? **[1]**

   a) $-5xyz^2$, $7xyz^2$ b) $5xy^2$, $x^2y^2z^2$

   c) $5xyz^2$, $-3xy^2z$ d) $5xyz^2$, $5x^2yz$

2. Which of the following is like term as $3a^2b^2$? **[1]**

   a) 13a b) 13b

   c) 13ab d) $13a^2b^2$

3. Number of factors of $(a + b)^2$ is **[1]**

   a) 2 b) 1

   c) 4 d) 3

4. Using suitable Identity, find $983^2 - 17^2$. **[1]**

   a) 1000 b) 98317

   c) 966 d) 966000

5. Using suitable Identity, find 194×206. **[1]**

   a) 39964 b) 42000

   c) 38000 d) 35988

6. On dividing 57 p^2qr by 114pq, we get **[1]**

   a) $\frac{1}{4}pr$ b) $\frac{3}{4}pr$

   c) $\frac{1}{2}pr$ d) 2pr

7. x (x – 3) + 2 = ? **[1]**

   a) x^2– 3x + 2 b) x^2 – 2x + 2

   c) x^2 – 5x + 3 d) x^2 + 3x + 5

8. The value of $(3x^3 + 9x^2 + 27x) \div 3x$ is **[1]**

   a) $x^2 + 3x + 9$ b) $3x^3 + 9x^2 + 9$

   c) $3x^2 + 3x^2 + 27x$ d) $x^2 + 9 + 27x$

9. Which of the following is a monomial? **[1]**

   a) $4x + y^2$ b) 2x + 7y

   c) 7z d) 4x + 3y + 5

10. $5x \times 4x^2$ = ? **[1]**

a) $20x^3$ b) $20x^2$

c) 20x d) 20

11. Like term as $4m^3n^2$ is - **[1]**

a) $-6m^3n^2$ b) $4m^2n^2$

c) $4m^3n$ d) $6pm^3n^2$

12. What is the name of this solid? **[1]**

a) a square pyramid b) a tetrahedron

c) a square prism d) a cone

13. Which of the following has no rectangular faces? **[1]**

a) a triangular pyramid b) a cube

c) a square prism d) a triangular prism

14. By using Euler's formula find the unknown. Edges = 2, Vertices = 3, Faces =? **[1]**

a) 2 b) 5

c) 4 d) 3

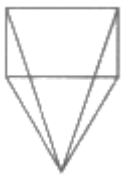
15. ___ + V – E = 2 **[1]**

a) 2 b) V

c) F d) E

16. Which amongst the following is not a polyhedron? **[1]**

a)  b) 

c)  d) 

17. By using Euler's formula find the unknown. Faces = 5, Edges = 8, Vertices =? **[1]**

a) 2 b) None of these

c) 5 d) 3

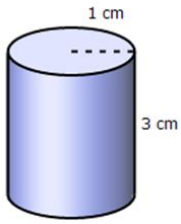
18. The most important part of a map is the _____. **[1]**

a) None of these b) lines

c) scale

d) symbols

19. What is the volume of this cylinder? Use $\pi \approx 3.14$. **[1]**



a) $9.42\ cm^3$

b) $20\ cm^3$

c) $3\ cm^3$

d) $12\ cm^3$

20. Find the area of a triangle whose base is 4 cm and altitude is 6 cm. **[1]**

a) $14\ cm^2$

b) $12\ cm^2$

c) $10\ cm^2$

d) $16\ cm^2$

21. Area of a trapezium = Half of the sum of the lengths of parallel sides $\times$ _____ **[1]**

a) Perpendicular distance between them

b) Sum of base

c) Perimeter of base

d) Slant height

22. What is the surface area of a book 13 cm long, 10 cm wide, and 3 cm high? **[1]**

a) $320\ cm^2$

b) $529\ m^2$

c) $160\ cm^2$

d) $398\ cm^2$

23. A park has a 2 meter walkway inside along the periphery. Park is 40 meter long and 22 m wide. Find the area of walkway running inside the park. **[1]**

a) $132\ m^2$

b) $432\ m^2$

c) $32\ m^2$

d) $232\ m^2$

24. The dimensions of an iron box are $9\ ft \times 4.4\ ft \times 2.5\ ft$. What is the cost of the iron sheet used to make the box, if the cost of the sheet is Rs 6 per square foot? **[1]**

a) Rs 887.2

b) Rs 977.2

c) Rs 777.2

d) Rs 877.2

25. If the radius of the base of a right circular cone is 9r mm. and its height is equal to the radius of the base, find its volume in $mm.^3$. **[1]**

a) $248\ \pi r^3$

b) $243\ \pi r^3$

c) $252\ \pi r^3$

d) $200\ \pi r^3$

26. Find the perimeter of a rectangle whose length is 4 cm and breadth is 3 cm. **[1]**

a) 8 cm

b) 14 cm

c) 12 cm

d) 10 cm

27. The total surface area of a rectangular block is 1097 cm^2. What is the area of four sides of the block, if length is 19 cm and the width is 16 cm? **[1]**

a) 539 cm^2 b) 439 cm^2

c) 488.6 cm^2 d) 793 cm^2

28. What is the surface area of the drawing box, if its length is 16 cm, width 6 cm, and height 3 cm? **[1]**

a) 162 cm^2 b) 25 cm^2

c) 200 cm^2 d) 324 cm^2

29. The base of a cone has a radius of 4 cm. The height of the cone is 6 cm. Find the volume of the cone. **[1]**

a) 16π cm^3 b) 64π cm^3

c) 32π cm^3 d) 91π cm^3

30. Find the common factors of the given terms: $12a^2b,\ 15ab^2$ **[1]**

a) 3ab b) ab

c) None of these d) 3

31. Find and correct the errors in the following mathematical statements. x (3x + 2) = $3x^2$ + 2 **[1]**

a) x (3x + 2) = $5x^2$ + 2x b) None of these

c) x (3x + 2) = $3x^2$ d) x (3x + 2) = $3x^2$ + 2x

32. Divide as directed: $52pqr(p+q)(q+r)(r+p) \div 104pq(q+r)(r+p)$ **[1]**

a) $r(p+q)$ b) $\frac{1}{2}r(p+q)$

c) $\frac{1}{2}$ d) None of these

33. Factorise $12a^2b + 15ab^2$ **[1]**

a) 3ab b) 3ab (5a + 4b)

c) (4a + 5b) d) 3ab (4a + 5b)

34. Solve: $7x^2y^2z^2 \div 14xyz$ **[1]**

a) xyz b) $\frac{1}{2}$xyz

c) 2 d) 2xyz

35. Factorise: $x^2 - 2x - 3x + 6$ **[1]**

a) (x – 3) b) None of these

c) (x – 3) (x – 2) d) (x – 2)

36. Factorise: $q^2 - 10q + 21$ **[1]**

a) None of these b) (q – 3)

c) (q – 7) d) (q – 3) (q – 7)

37. $x^2 + (a + b)x + ab$ is same as **[1]**

a) (x + b) b) None of these

c) (x + a) d) (x + a) (x + b)

38. Factorise: 8m (5m – 4n) – 3n (5m – 4n) **[1]**

a) (8m – 3n)

b) (5m – 4n)

c) None of these

d) (8m – 3n) (5m – 4n)

39. Factorise: $8m^2 - 18n^2$ **[1]**

a) $(2m + 3n)(2m - 3n)$

b) $2(2m + 3n)(2m - 3n)$

c) $2(2m - 3n)$

d) $2(2m + 3n)$

40. Factorise: $a^2 - 10000b^4$ **[1]**

a) $\left(a + 100b^2\right)$

b) $\left(a - 100b^2\right)$

c) $\left(a - 100b^2\right)\ \left(a + 100b^2\right)$

d) None of these

Solution

Class 08 - Mathematics

MCQ Test January

1. **(a)** -5xyz^2, 7xyz^2
   Explanation: We know that the term s having the same algebraic (literal) factors are called like terms.
   - 5xyz^2,7xyz^2 is the pair of like terms.
2. **(d)** $13a^2b^2$
   Explanation: like terms are the terms which contain same variables and same power.
   here terms are $3a^2b^2$,$13a^2b^2$
   variables are same i.e a^2b^2
   Hence $13a^2b^2$ is like term as $3a^2b^2$
3. **(a)** 2
   Explanation: We can write (a + b)^2 as, (a + b) (a + b) and this cannot be factorised further. Hence, number of factors of (a + b)^2 is 2.
4. **(d)** 966000
   Explanation: Use identity,
   $a^2 - b^2 = (a + b) (a - b)$
   $983^2 - 17^2 = (983 + 17) (983 - 17)$
   $983^2 - 17^2 = (1000) (996)$
   $983^2 - 17^2 = 96600$
5. **(a)** 39964
   Explanation: Use identity (a - b) (a + b) = a^2 - b^2
   Here a = 200 and b = 6
   (a - b) (a + b) = a^2 - b^2
   (200 - 6) (200 + 6)
   (200)^2 - (6)^2
   40000 - 36 = 39964
6. **(c)** $\frac{1}{2}pr$
   Explanation: Required value = $\frac{57p^2qr}{114pq} = \frac{57\times p\times p\times q\times r}{114\times p\times q} = \frac{57}{114}pr = \frac{1}{2}pr$
7. **(a)** x^2– 3x + 2
   Explanation: x (x – 3) + 2
   Open the brackets we get,
   $x^2 - 3x + 2$
8. **(a)** x^2 + 3x + 9
   Explanation: We have,
   $\left(3x^3 + 9x^2 + 27x\right) \div 3x$ = $\frac{3x^3+9x^2+27x}{3x} = \frac{3x^3}{3x} + \frac{9x^2}{3x} + \frac{27x}{3x}$ = x^2 + 3x + 9
9. **(c)** 7z
   Explanation: An algebraic expression which consists of one non-zero term only is called a monomial.
   7z is a minomial as it contain one term only i.e 7z.
10. **(a)** $20x^3$
    Explanation: $5x \times 4x^2$
    Multiply constants and variables we get,
    $5 \times 4 \times x \times x^2$
    $20 \times x^3$
    $20x^3$

11. **(a)** -6m^3n^2

Explanation: We know that the like terms contain the same literal factor. So, the like term as 4m^3n^2, is -6m^3n^2, as it contains the same literal factor m^3n^2.

12. **(a)** a square pyramid

Explanation: It is a squar a pyramid. It has 4 side faces which are triangles. The base is a sqaure. it has 5 vertices and 8 edges.

13. **(a)** a triangular pyramid

Explanation: Triangular Pyramid has 4 faces. the 3 side faces are triangles, the base is also triangle. So no rectangular face.

14. **(d)** 3

Explanation: Formula is $F - V + E = 2$

So $F = 2 + V - E$

Here Edges = 2, Vertices = 3 So E = 2 and V = 3

$F = 2 + V - E = 2 + 3 - 2 = 3$

So 3 faces

15. **(c)** F

Explanation: Formula is $F + V - E = 2$. It is called Euler Formula

where V = number of vertices, E= number of edges , F= number of faces .

16. **(a)** 

Explanation: According to the definition of a polyhedron, a solid is a polyhedron if it is made up of only polygonal-faces, the faces meet at edges with one line segment and the edges meeting at a point. The point is generally called as vertex.

17. **(c)** 5

Explanation: Formula : $F + V - E = 2$

Here Faces = 5, Edges = 8, So F = 5 and E = 8

So, $5 + V - 8 = 2$

$V = 2 - 5 + 8 = 5$

So vertices = 5

18. **(c)** scale

Explanation: The scale of a map is the ratio of a distance on the map to the corresponding distance on the ground.

19. **(a)** 9.42 cm^3

Explanation: radius of cylinder = 1 cm and height of cylinder = 3cm

Volume of a cylinder = $\pi r^2 h$

$V = 3.14 \times (1)^2 \times 3$

$V = 3.14 \times 1 \times 3 = 9.42 cm^3$

volume of cylinder is 9.42 cm^3.

20. **(b)** 12 cm^2

Explanation: Given that,Base of the triangle = 4 cm

Altitude of the triangle = 6cm

Area of a triangle = $\frac{1}{2}$ × base × altitude

So,Area of the given triangle = ($\frac{1}{2}$) x 4x 6 =12cm^2

21. **(a)** Perpendicular distance between them

Explanation: Area of a trapezium =(Half of the sum of the length of parallel sides)×(perpendicular distance between them)

22. **(d)** 398 cm^2

Explanation: length of book = 13 cm , breadth = 10 cm , height = 3 cm

Surface area of book = $2(length \times breadth + breadth \times height + height \times length)$

$S = 2(13 \times 10 + 10 \times 3 + 3 \times 13)$

S = 2(1300 + 30 + 39)

$S = 2(199) = 2 \times 199 = 398cm^2$

surface area of book = 398 cm^2

23. **(d)** 232 m^2

Explanation: length of park = 40 m and breadth = 22 m

Area of park = $length \times breadth$

$A = 40 \times 22 = 880m^2$

area of park = 880 m^2

Length of park without pathway = 40-2-2 = 36 m , Breadth = 22- 2 - 2 = 18 m

Area of park without pathway = $length \times breadth$

$A = 36 \times 18 = 648m^2$

The area of the park without the walkway is 648 m^2

area of walkway running inside the park = area of the park - area of park without pathway

=(880 - 648) m^2

= 232 m^2

24. **(d)** Rs 877.2

Explanation: length of iron box = 9 ft , breadth = 4.4 ft , height = 2.5 ft

Surface area of iron box = $2(length \times breadth + breadth \times height + height \times length)$

$S = 2(length \times breadth + breadth \times height + height \times length)$

$S = 2(9 \times 4.4 + 4.4 \times 2.5 + 2.5 \times 9)$

S = 2(39.6 + 11 + 22.5)

$S = 2(73.1) = 2 \times 73.1 = 146.2ft^2$

Surface area of iron box = 146.2 ft^2

The cost of the sheet per square foot = Rs 6

The cost of the sheet 146.2 ft^2 = $6 \times 146.2 = Rs877.2$

The cost is Rs 877.2

25. **(b)** 243 πr^3

Explanation: radius of cone = 9r and height = radius =9r

Volume of a cone = $\frac{1}{3}\pi r^2 h$

$V = \frac{1}{3} \times \pi \times (9r)^2 \times 9r$

$V = \frac{1}{3} \times \pi \times 81r^2 \times 9r$

$V = \frac{729\pi r^3}{3} = 243\pi r^3$

volume of cone = $243\pi r^3$ mm^3

26. **(b)** 14 cm

Explanation: Length of the rectangle,l = 4cm

Breadth of the rectangle,b = 3 cm

Perimeter of a rectangle = 2(l+b) = 2(4+3) = 2x7 = 14 cm

27. **(c)** 488.6 cm^2

Explanation: The total surface area of a rectangular block is 1097 cm^2

length = 19 cm , breadth = 16 cm and let the height be x cm.

The total surface area of a rectangular block =

$2(length \times breadth + breadth \times height + height \times length)$

$1097 = 2(19 \times 16 + 16 \times x + x \times 19)$
$1097 = 2(304 + 16x + 19x)$
$\frac{1097}{2} = 304 + 35x$
548.5 = 304 + 35x
548.5 - 304 = 35x
22.45 = 35x
6.98cm = x
height = 6.98 cm
Area of four sides of the block = $2 \times height(length + breadth)$
$A = 2 \times 6.98(19 + 16)$
A = 13.96(35) $= 13.96 \times 35 = 488.6cm^2$
area of four sides of the block = 488.6 cm^2

28. **(d)** 324 cm^2
Explanation: length of drawing box= 16 cm , breadth = 6 cm , height = 3 cm
Surface area of drawing box = $2(length \times breadth + breadth \times height + height \times length)$
$S = 2(16 \times 6 + 6 \times 3 + 3 \times 16)$
S = 2(96 + 18 + 48)
$S = 2(162) = 2 \times 162 = 324cm^2$

29. **(c)** 32π cm^3
Explanation: radius of cone = 4 cm and height of cone = 6 cm
volume of cone = $\frac{1}{3}\pi r^2 h$
$V = \frac{1}{3} \times \pi \times (4)^2 \times 6$
$V = \frac{1}{3} \times \pi \times 16 \times 6$
$V = \frac{96\pi}{3} = 32\pi$
volume of cone is 32π cm^3.

30. **(a)** 3ab
Explanation: The common factor of $12a^2b,\ 15ab^2$
$12a^2b$ = 2 x 2 x 3 x a x a x b
$15ab^2$ = 3 x 5 x a x b x b
common factor = 3ab

31. **(d)** x (3x + 2) = $3x^2$ + 2x
Explanation: x (3x + 2) = $3x^2$ + 2 is not correct
x will be multiplied by both3 x and 2
x (3x + 2) = $3x^2$ + 2x

32. **(b)** $\frac{1}{2}r(p + q)$
Explanation: $52pqr(p + q)(q + r)(r + p) \div 104pq(q + r)(r + p)$
$= 52pqr(p + q)(q + r)(r + p)/104pq(q + r)(r + p)$
By cancelling
$= 1/2r(p + q)$

33. **(d)** 3ab (4a + 5b)
Explanation: $12a^2b + 15ab^2$
by finding commom factor
3ab (4a + 5b)

34. **(b)** $\frac{1}{2}$xyz
Explanation: $7x^2y^2z^2 \div 14xyz$
$\frac{7x^2y^2z^2}{14xyz}$

by division
$\frac{1}{2}$xyz

35. **(c)** (x – 3) (x – 2)
Explanation: $x^2 - 2x - 3x + 6$
x(x -2) -3 (x -2)
(x -3)(x -2)

36. **(d)** (q – 3) (q – 7)
Explanation: $q^2 - 10q + 21$
q^2 - 7q - 3q + 21
q (q - 7) -3 (q - 7)
(q - 3) (q - 7)

37. **(d)** (x + a) (x + b)
Explanation: $x^2 + (a + b)x + ab$
= x^2 + ax + bx + ab
= x (x + a) + b (x+a)
= (x + a) (x + b)

38. **(d)** (8m – 3n) (5m – 4n)
Explanation: 8m (5m – 4n) – 3n (5m – 4n)
By pairing method
= (8m – 3n) (5m – 4n)

39. **(b)** $2(2m + 3n)(2m-3n)$
Explanation: $8m^2 - 18n^2$
$= 2(4m^2 - 9n^2)$
$= 2[(2m)^2 - (3n)^2]$
$= 2(2m + 3n)(2m-3n)$

40. **(c)** $\left(a - 100b^2\right)\ \left(a + 100b^2\right)$
Explanation: $a^2 - 10000b^4$
$= (a)^2 - (100b^2)^2$
$= \left(a - 100b^2\right)\ \left(a + 100b^2\right)$

ATOMIC ENERGY CENTRAL SCHOOL NO.4

RAWATBHATA

CLASS 08 - SCIENCE

SCIENCE MCQ (JANUARY-2021)

Time Allowed: 30 minutes **Maximum Marks: 40**

1. Sliding is replaced in most machines by **[1]**

   a) Use of ball bearings
   b) Using graphite
   c) Using powder
   d) Using lubricants

2. A motorcycle with worn out treads on tyres is more likely to skid due to **[1]**

   a) Smaller size of tyres
   b) Less weight of tyres
   c) More friction
   d) Less friction

3. Pressure is **[1]**

   a) Inversely proportional to force
   b) Directly proportional to mass
   c) Inversely proportion to area of contact
   d) Directly proportional to area of contact

4. The force by which earth attracts the other body is called **[1]**

   a) Contact force
   b) Muscular force
   c) Gravitational force
   d) Magnetic force

5. The lateral pressure exerted by liquid at same height is **[1]**

   a) Less in right direction
   b) Equal in all direction
   c) More in left direction
   d) Not equal in all direction

6. If the force applied on a moving body in direction of motion than **[1]**

   a) Speed of the body increases
   b) No change will be there in speed of body
   c) Speed of body becomes zero
   d) Speed of body decreases

7. Friction between any two objects is due to **[1]**

   a) Repulsion between them
   b) Surface irregularities on them
   c) Even surfaces of them
   d) Attraction between them

8. School bags have broader strips to **[1]**

   a) Increase pressure
   b) Decrease mass
   c) Decrease pressure
   d) Increase grips

9. Same force produces more pressure on **[1]**

   a) Circular area
   b) Larger area

c) Smaller area
d) Equal area

10. Kabaddi players rub their hands with soil for a **[1]**

a) Better grip of their opponents
b) Make the opponents weaker
c) Make the body more slippery
d) Increasing energy of the body

11. The direction in which swimmer applies the force to move forward is **[1]**

a) Left direction
b) Backward direction
c) Forward direction
d) Right direction

12. Brakes of vehicle is stopped by using brake that works on property of **[1]**

a) Retardation
b) Friction
c) Acceleration
d) Pressure

13. Two boys exert force of 40 N and 60 N in opposite direction on an object. The resultant force is **[1]**

a) 20 N
b) 100 N
c) 40 N
d) 240 N

14. When batsman hits the ball, it changes its **[1]**

a) Changes its direction only
b) Shape and size
c) Changes its speed only
d) Direction as well as speed

15. Which of the following method is applied to increase friction of vehicles? **[1]**

a) Regular oiling of engine
b) Less inflating the tyres
c) Cleaning of vehicles
d) Treading of tyres

16. What does air resistance do to falling objects? **[1]**

a) Increase its mass
b) Make them rise
c) Slows down them
d) Speeds them up

17. A body is rolling over the ground or sliding over the same ground. In which case, the friction will be more? **[1]**

a) When sliding
b) When rolling
c) Equal in both case
d) There is no friction in both case

18. The shoes of football player have spikes in their sole to **[1]**

a) Make frictionless
b) Increase friction
c) Decrease friction
d) Hard hitting the ball

19. Fluid friction can be minimized by **[1]**

a) Adding salts to fluid
b) Giving suitable shape
c) Increasing volume
d) Decreasing volume

20. Sand paper is used to clean the metal surface to remove rust as because **[1]**

a) Sand paper has rough surface to increase friction
b) Sand paper has smooth surface to increase friction

c) Sand paper has rough surface to decrease friction
d) Metal and sand paper reacts easily

21. When we attempt to move any surface, we apply a force to overcome **[1]**

a) Interlocking between surfaces
b) Gravitational force of earth
c) Electrostatic force between particles
d) Vander wall force between surfaces

22. Thermos flask keeps hot liquid hot and cold liquid cold by **[1]**

a) Friction
b) Preventing heat loss
c) Heating
d) Cooling

23. Friction produces **[1]**

a) Force
b) Motion
c) Heat
d) Light

24. Friction is a **[1]**

a) Contact force acting in same direction
b) Non-contact force in same direction
c) Non-contact force in opposite direction
d) Contact force acting in opposite direction

25. Sprinkling of powder on the carom board **[1]**

a) Maintain the friction
b) Reduce friction
c) Increase friction
d) Make the board durable

26. When the friction is more **[1]**

a) One body is rough and other is smooth
b) Both bodies are in liquid state
c) Two bodies in contact are smooth
d) Two bodies in contact are rough

27. The SI unit of frictional force is **[1]**

a) Newton
b) Watt
c) Joule
d) Pascal

28. Lightening and thunder occurs together but lightening is seen earlier than sound as **[1]**

a) The sound produced is inaudible
b) Sound travels in absence of light
c) Light do not require medium for propagation
d) Light travels faster than sound

29. Which of the following require material medium for propagation? **[1]**

a) Sound
b) Light
c) Transverse wave
d) All of these

30. Noise pollution may cause **[1]**

a) Mental disorder
b) Hearing impairment

c) Intestinal disease
d) Skin disease

31. In a classroom, all the students speak together the sound produced will be called **[1]**

a) Noise
b) Soothing sound
c) Music
d) Pleasing sound

32. Industrial noise can be reduced by **[1]**

a) Not using machine that produce noise
b) Removing all persons away from factories
c) Installing industrial activity away from residential area
d) Shutting down all industrial activity

33. A bird makes high pitched sound but a lion makes a _____ roar. **[1]**

a) High pitched
b) Low pitched
c) Without pitch
d) Equal pitch

34. In most of the cases vibration of objects are not visible because **[1]**

a) Frequency is very less
b) Wavelength is very large
c) Amplitude is very small
d) Wavelength is very small

35. The function of three bones present in the middle of ear is to **[1]**

a) Increase wavelength
b) Amplify sound
c) Increase frequency
d) Decrease pitch

36. Which of the following is not a bone present in human ear? **[1]**

a) Stirrup
b) Hammer
c) Anvil
d) Femur

37. Voice of which of the following is likely to have minimum frequency? **[1]**

a) Baby boy
b) Baby girl
c) A man
d) A woman

38. The part of ear which vibrates when outside sound fall on it is **[1]**

a) External ear
b) Pinna
c) Ear drum
d) Eustachian tube

39. Which nerve transmits sound impulse to brain from ear? **[1]**

a) Auditory nerve
b) Eye nerve
c) Optic nerve
d) Cardiac nerve

40. Which of the following vibrates with a low frequency? **[1]**

a) Whistle
b) Sitar
c) Flute
d) Drum

Solution

Class 08 - Science

SCIENCE MCQ (JANUARY-2021)

1. **(a)** Use of ball bearings
   Explanation: Ball bearings reduces friction of moving parts in a machine. So, sliding friction is replace by rolling friction. Ball bearings are spheres that are held in a track. They are used between a wheel and a fixed axle or between a wheel- axle and a vehicle shaft. They are used to provide better linear motion or rotation around a fixed axis.
2. **(d)** Less friction
   Explanation: A motorcycle with worn out threads on tyres is more likely to skid due to less friction on slippery road. Tyres have grooves to increase the friction, if these grooves are worn out the grip loses amd the friction between the tyre and the surface of the road decreases.There will be less friction between the motorcycle and the road which is most likely to skid.
3. **(c)** Inversely proportion to area of contact
   Explanation: Pressure is inversely proportional to area of contact and directly proportional to force acting on per unit area. Increased area of contact results in applying bigger force which results in lower pressure and less area of contact results in less force which in turn results in high pressure.
4. **(c)** Gravitational force
   Explanation: The force by which earth attracts the other body is called gravitational force. The earth pulls all objects towards itself with a force. Gravitational force depends upon mass of the body and distance from the center of earth. It is a non contact force as the force exerted by the earth can act from a distance.
5. **(b)** Equal in all direction
   Explanation: The lateral pressure exerted by liquid at same height is equal in all direction and pressure increases with depth.
6. **(a)** Speed of the body increases
   Explanation: If the force applied on a moving body in the same direction of motion than the speed of the body increases.As both the forces are acting in the same direction, they add up to make a bigger force.This large force makes the speed increases. And if force acts in the opposite direction, speed decreases.
7. **(b)** Surface irregularities on them
   Explanation: Friction between any objects is due to surface irregularities on them. Friction is the resistance to motion of one object moving relative to another. Friction arises due to strong atomic or molecular forces of attraction between the two surfaces at the points of contact. In rough surfaces, the actual area of contact is very small, so the pressure at the points of contact becomes very large. So rough surfaces have more friction than smooth or polished surfaces.
8. **(c)** Decrease pressure
   Explanation: School bags have broader strips to decrease pressure that is applied on the shoulder. The load remains the same but the area increases. Since pressure is inversely proportional to area, the greater the area, the lesser the pressure, and the pressure on the shoulder reduces in broad straps.
9. **(c)** Smaller area
   Explanation: Same force produces more pressure on smaller area as pressure is inversely proportional to area of contact. So, high pressure in less area of contact and less pressure in more area of contact.
   Example: Cutting instruments like knife and scissors have sharp edges or less area of contact.
10. **(a)** Better grip of their opponents
    Explanation: Kabaddi players rub their hands with soil for a better grip of their opponents. Soil increase the roughness and creates more friction while catching the player firmly such that not to slip.
11. **(b)** Backward direction
    Explanation: The swimmer applies backward direction to move forward. For every action there is an equal and opposite reaction, so when a person pushes the water backwards the water pushes him forward.

12. **(b)** Friction
Explanation: Wheels of vehicle is stopped by using brake that works on property of friction. We deliberately increase friction by using brake pads in the brake system and arrest the motion of the rim and finally the wheel, which helps in slowing and stopping the vehicle.

13. **(a)** 20 N
Explanation: Since the two forces are acting in opposite directions,the net force is the difference between the two forces. The net force will act in the direction of the larger force.
Force exerted by the first boy=40N
Force exerted by the second boy= 60N
The resultant force exerted by two boys on same objet will be : Force exerted by the second boy (60N) - Force exerted by the first boy(40N) = 20N

14. **(d)** Direction as well as speed
Explanation: When a batsman hits the ball, it changes the direction of ball as well as speed of the ball. Due to the force applied by the bat along the direction of motion the speed of the ball increases.

15. **(d)** Treading of tyres
Explanation: Friction is necessary for movement of vehicle on road. To increase friction treading of tyres is done. Regular oiling of engine, cleaning of vehicle and less inflating of the tyres reduce friction.

16. **(c)** Slows down them
Explanation: Air resistance slows down the falling object as it increase with the increase in surface area of the object and acts against the gravitational force due to which it slows down the speed of object to fall down

17. **(a)** When sliding
Explanation: Sliding friction is always more than rolling friction because during sliding of a body more surface area is in contact not in case of rolling
so, a body rolling over the ground will offer less friction than body sliding over the same ground.

18. **(b)** Increase friction
Explanation: The shoes of football players have spikes in their sole to increase friction with ground while running to prevent slipping.

19. **(b)** Giving suitable shape
Explanation: Liquid and gases are called fluid. Friction in fluid can be minimized by giving suitable shape called streamline shape. As streamlined shape is narrow at the ends and broader in the middle due to which it reduces the fluid friction and helps an object to move forward easily.

20. **(a)** Sand paper has rough surface to increase friction
Explanation: Sand papers are used to clean the metal surface to remove rust because sand papers has rough surface to increase the friction to removes the rust.

21. **(a)** Interlocking between surfaces
Explanation: When we attempt to move any surface, we apply a force to overcome interlocking between the surfaces called static friction present due to irregularities on the surface.

22. **(b)** Preventing heat loss
Explanation: The thermos flask keeps hot liquid hot and cold liquid cold by preventing heat loss. Thermos flask have double layered wall in which air is evacuated to prevent heat loss.

23. **(c)** Heat
Explanation: Friction produces heat. When two surfaces in contact rub each other produces friction resulting in the production of heat. All machines get warm due to this.

24. **(d)** Contact force acting in opposite direction
Explanation: Friction is a contact force acting in opposite direction of moving body. Friction is created when one body moves over the surface of another body in contact to each other.

25. **(b)** Reduce friction
Explanation: Sliding friction is less than static friction. Powder fill the rough surface of carrom board due to which friction between the carrom coins and the board reduces and coins slides easily.

26. **(d)** Two bodies in contact are rough
Explanation: The friction is more when two bodies in contact are rough. Rough surface have more irregularities that interlock the surfaces and leads to more friction.

27. **(a)** Newton
Explanation: The S.I. unit of force is Newton. All kinds of force are measured in terms of Newton which is equal to force that push a body of mass 1kg to a distance of 1meter.

28. **(d)** Light travels faster than sound
Explanation: Lightening and thunder occurs together but lightening is seen earlier than sound because light travel much faster than sound.

29. **(a)** Sound
Explanation: Sound require material medium for its propagation which may be solid, liquid or gaseous in nature. Light can travel in vacuum as no medium is required.

30. **(b)** Hearing impairment
Explanation: Noise pollution may cause hearing impairment. Unpleasant sound having high altitude may harm the eardrum that leads to hearing problem.

31. **(a)** Noise
Explanation: Unpleasant sound is called noise. In classroom, all the students speak together the sound produced will be called noise.

32. **(c)** Installing industrial activity away from residential area
Explanation: Industrial noise can be reduced by installing industrial activity away from residential area and using safety for workers.

33. **(b)** Low pitched
Explanation: A bird makes high pitched sound but a lion makes a low pitched roar. Low pitched sounds are lauder then high pitches sound.

34. **(c)** Amplitude is very small
Explanation: The vibrations of object are not visible because in most of the cases amplitude of waves are very small. Amplitude is the maximum displacement from mean position.

35. **(b)** Amplify sound
Explanation: Three bones are present in the middle ear named as hammer, anvil and stirrup. These bones are attached with eardrum one after the other to amplify the sound.

36. **(d)** Femur
Explanation: Femur bone is not present in ear. Anvil, Hammer and stirrups are present in the ears.

37. **(c)** A man
Explanation: The voice of an adult man is of lower pitch in comparison to the voices of a baby boy, a baby girl and a woman. Since frequency of a sound is directly proportional to its pitch, man's voice is of minimum frequency in comparison to a boy, a girl, or awoman's voice.

38. **(c)** Ear drum
Explanation: The tympanic membrane is the part of ear which vibrates when outside sound fall on it to create vibration.

39. **(a)** Auditory nerve
Explanation: Auditory nerve transmits sound impulses to brain from ear. Optic nerve, cardiac nerves are present in eyes and heart respectively.

40. **(d)** Drum
Explanation: Drum has thin membrane of skin that vibrates on beating. The number of vibration per second is less in drum in comparison to whistle, flute and sitar.

ATOMIC ENERGY CENTRAL SCHOOL NO.4

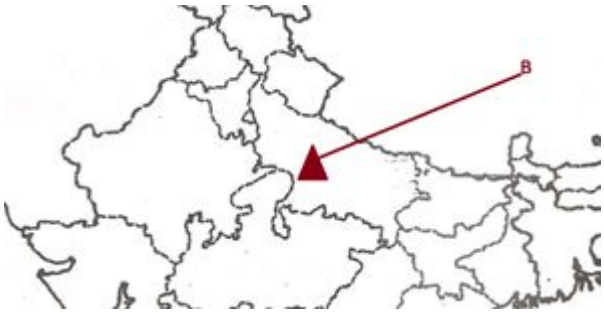
RAWATBHATA

CLASS 08 - SOCIAL SCIENCE

SOCIAL SCIENCE MCQ JANUARY - 2021

Time Allowed: 30 minutes **Maximum Marks: 40**

1. Identify the place marked B, from the outline map of India, **[1]**
Nana Saheb led the revolt from this place
When British captured this place, Nana Saheb fled to Nepal



a) Kanpur b) Vellore

c) Barrackpore d) Delhi

2. This was a major turning point in the history of India's freedom struggle. From the following list, which one would be the major turning point with special reference to the impact of the Revolt of 1857? **[1]**

A. The rise of a feeling of nationalism and unity among the people of all parts of India.
B. The army was reorganized and new weapons replaced the outdated weapons.
C. Governor-General was made the Viceroy.
D. No interference in the religious practices of India by the British.

a) Only C b) Only B

c) Only A d) Only D

3. From the names given below, which one is not called as an alternative to The Great Revolt of 1857. **[1]**

a) Uprising of 1857 b) Indian Mutiny

c) Sepoy Mutiny d) Second War of Independence

4. Some of the important causes of the Great Revolt of 1857 are given in the following statements, select the one that is not a socio-religious cause. **[1]**

A. The livelihood of Indian artisans and craftsmen were affected as cheap machine-made goods were available.
B. Christian missionaries tried to convert forcibly many people to Christianity.
C. Many social reforms like abolition of Sati, widow remarriage, encouraging women's education, etc hurt the feelings of Hindus.
D. The introduction of Western education hurt the feelings of people.

a) Only B
b) Only D
c) Only C
d) Only A

5. The land and property of _____ was confiscated on a large scale and they were treated with suspicion and hostility. **[1]**

a) Hindus
b) Christians
c) Muslims
d) Sepoys

6. In 1849, Governor-General Dalhousie announced the death of _____. **[1]**

a) Rani Laxmi Bai
b) Bahadur Shah Zafar
c) Nana Saheb
d) Tantiya Tope

7. Which one of the following is considered as an immediate cause of the great revolt of 1857? **[1]**

a) Because of the implementation of Doctrine of Lapse , Jhansi, Nagpur and Satara were annexed
b) Many social reforms like abolition of Sati, widow remarriage , encouraging women?s education etc hurt the feelings of Hindus.
c) The British introduced the new Enfield rifle and the sepoys had to bite off a greased paper with fat of cows and pigs which hurt the religious sentiments of the people.
d) The livelihood of Indian artisans and craftsmen were affected as cheap machine made goods were available

8. Which industry is the base of all other industries? **[1]**

a) Leather industry
b) IT industry
c) Iron and steel industry
d) Cotton textile industry

9. What class of economic activities does manufacturing come under? **[1]**

a) Primary as well as secondary
b) Tertiary
c) Secondary
d) Primary

10. What is the output of the iron and steel industry? **[1]**

a) All of these
b) Iron ore
c) Pig iron
d) Steel

11. Many countries have a hub of the Textile industry. From the list given below, choose the country that does not have a textile industry? **[1]**

a) Japan
b) Germany
c) India
d) Taiwan

12. What class of industries does Maruti Udyog come under? **[1]**

a) Private sector
b) Cooperative sector
c) Public sector
d) Joint sector

13. In 1980, the Government of Karnataka developed an electronic city in Bangalore, 18 km from **[1]**

the core city. Find out the name of that city.

a) Silicon Valley of the World
b) Silicon Valley of Karnataka
c) Silicon Valley of Asia
d) Silicon Valley of India

14. Emerging industries can also be named as: **[1]**

a) Sunrise industries
b) Evolving industries
c) Sunshine industries
d) Bright industries

15. Fort Gloster is located in: **[1]**

a) West Bengal
b) None of these
c) Gujarat
d) California

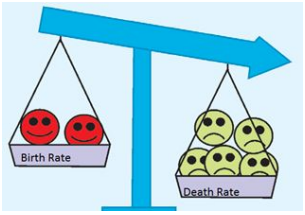
16. Initially the textile industry flourished only in the states of Gujarat and Maharashtra because of favourable humid climate. But today this industry has spread to other parts of India and hence occupies an important position in the world. Choose the appropriate reason for it. **[1]**

a) Today humidity and frost free climate can be created artificially anywhere
b) Lack of a proper transport network in other parts of India
c) The other states of Indi were densely populated
d) Skilled labourers were available only in Gujarat and Maharashtra

17. Name the important Northern industrial region in India. **[1]**

a) Bangalore-Tamil Nadu region
b) Damodar Valley belt
c) Ahmedabad-Vadodara region
d) Gurgaon-Delhi-Meerut region

18. What does the following image infer? **[1]**



a) All of the above
b) Decrease in population
c) Increase in population
d) Balanced population

19. Which of the following countries has slow growth rate of population. **[1]**

a) Brazil
b) Russia
c) Australia
d) The United Kingdom

20. The movement of people in and out of an area is referred to as: **[1]**

a) Population Density
b) Birth Rate
c) Migration
d) Death Rate

21. Choose an appropriate reason from the following why Osaka in Japan and Mumbai in India are two densely populated areas. **[1]**

a) Industrial belts providing large
b) These areas are topographically

employment opportunities.

c) These are areas with excellent climatic conditions.

favourable.

d) These are areas of religious significance.

22. Name the ultimate resource on the earth. **[1]**

a) Capital

b) Human Beings

c) Land

d) Minerals

23. The areas which usually enjoy an equable climate, adequate rainfall, where the land is flat and the soil is fertile are referred to as: **[1]**

a) Thickly populated regions

b) Meagerly populated regions

c) Sparsely populated regions

d) Moderately populated regions

24. On the basis of skill, labour employed in the process of production can be classified as: **[1]**

a) in expert, expert, proficient

b) inexperienced, experienced and highly experienced

c) not knowledgeable, knowledgeable, highly knowledgeable

d) unskilled, skilled and highly skilled

25. According to the population, what is India's rank in the world? **[1]**

a) 7th

b) 1st

c) 2nd

d) 5th

26. The country which does not have a high growth rate of population is **[1]**

a) Brazil

b) New Zealand

c) Kenya

d) Egypt

27. Population density refers to: **[1]**

A. the number of people living per square unit of area.
B. the number of skilled people in a country.
C. the way in which people are spread across the earth's surface.
D. the number of unskilled people in a country.

a) Only B

b) Only A

c) Only C

d) Only D

28. The act of being fair or just and not favouring one side over another- **[1]**

a) Detention

b) Impartial

c) Witness

d) Offence

29. Which one is **not** associated with civil law? **[1]**

a) Disputes related to sale of land

b) Divorce

c) Theft

d) Rent matters

30. This refers to a petition filed before a higher court to hear a case that has already been decided by a lower court. **[1]**

a) Violation
b) Appeal
c) Cognizable
d) Compensation

31. The High Court of Delhi came up in _____. **[1]**

a) 1966
b) 1970
c) 1959
d) 1950

32. Who was the Chief Justice of India in 2007? **[1]**

a) M.G. Balakrishnan
b) K.M. Radhakrishnan
c) K.G. Balakrishnan
d) K.G. Radhakrishnan

33. Which of the following is not a function of the judge? **[1]**

a) Decide for how many years the accused will be put in jail
b) Argue the case for the victims
c) Writes the judgment
d) Record the evidence

34. The Supreme Court was established: **[1]**

a) On 15 January 1947
b) On 26 January 1947
c) On 15 January 1950
d) On 26 January 1950

35. The Right to be informed at the time of arrest of the offence for which the person is being arrested, is related to _____ of the Indian Constitution. **[1]**

a) Article 22
b) Article 21
c) Article 19
d) Article 20

36. Which one of the following is a function of Defence lawyer? **[1]**

a) Arrest the accused
b) Cross examination
c) Investigation
d) Pass the sentence

37. Which of the following is the function of a Public prosecutor? **[1]**

a) Cross-examine the witnesses
b) Record the evidence
c) Arrest the fiesta fans
d) Write the judgment

38. Define the term Impartial. **[1]**

a) None of these
b) the act of being fair & not favoring one side over others
c) Pass a judgment
d) Fair trail

39. Who decided the guilty or innocence of victim? **[1]**

a) Judge
b) Neighbor
c) Police
d) None of these

40. The arrested person should be protested before a magistrate within 24 hours of the arrest comes under **[1]**

a) Article 42
b) Article 51

c) Article 22

d) Article 56

Solution

Class 08 - Social Science

SOCIAL SCIENCE MCQ JANUARY - 2021

1. **(a)** Kanpur
   Explanation: When Nana Saheb the adopted son of Baji Rao II was refused the pension of his father after the latter's death he joined the Sepoy battalions at Kanpur in the rebellion in June 1857. He led the rebellion from Kanpur but was defeated and was driven into the Nepal hills.
2. **(c)** Only A
   Explanation: The revolt of 1857 was the first great struggle of the Indians for freedom from British Imperialism. For the first time, people from all parts of the country united to fight for a common cause. It also heightened the sense of Indian nationalism.
3. **(d)** Second War of Independence
   Explanation: The revolt of 1857 or the Sepoy Mutiny is popularly known as the First War of Independence and not the Second War. It was the first War in which people from almost all parts of the country fought against the British of a single motive of Independence.
4. **(d)** Only A
   Explanation: The effect on the livelihood of artisans and craftsmen due to the availability of cheap machine-made goods is an economic cause and not socio-religious cause.
5. **(c)** Muslims
   Explanation: The land and property of the Muslims were confiscated on a large scale and they were treated with suspicion and hostility because the British believed that the Muslims were responsible for the rebellion in a big way.
6. **(b)** Bahadur Shah Zafar
   Explanation: In 1849, Governor-General Dalhousie announced that after the death of Bahadur Shah Zafar,the family of the king would be shifted out of the Red Fort and given another place in Delhi to reside in.
7. **(c)** The British introduced the new Enfield rifle and the sepoys had to bite off a greased paper with fat of cows and pigs which hurt the religious sentiments of the people.
   Explanation: The issue of the grease cartridges that had a greased cover which needed to be bitten of before loading the Enfield Riffle. The rumours that the grease used in these cartridges contained cow fat pious for the Hindus and pig lard which is hated by the Muslims had to be touched by the lips as they had to uncover the coat with their mouth. This widened the apprehension of the religious people that the British were trying to humiliate religious sentiments of both the Hindus and the Muslims. The Sepoys took it as a challenge to their religion and were furious. This turned out to be the major reason for the immediate outbreak of the mutiny.
8. **(c)** Iron and steel industry
   Explanation: Iron and steel industry is the base of other industries. This is a feeder industry whose products are used as raw material for other industries.
9. **(c)** Secondary
   Explanation: Secondary activities or manufacturing change raw materials into products of more value to people.
10. **(d)** Steel
    Explanation: The process of converting iron ore into steel involves many stages. The raw material is put in the blast furnace where it undergoes smelting. It is then refined. The output obtained is steel which may be used by other industries as raw material.
11. **(b)** Germany
    Explanation: In Germany, Iron and Steel Industries are located.
12. **(d)** Joint sector
    Explanation: Joint sector industries are owned and operated by the state and individuals or a group of

individuals. Maruti Udyog Limited is an example of a joint sector industry.

13. **(d)** Silicon Valley of India
Explanation: Because the city is known for its mild climate throughout the year. Silicon Valley is a part of Santa Clara Valley, located next to the Rocky Mountains of North America. The area has a temperate climate with the temperatures rarely dropping below 0 degrees centigrade.

14. **(a)** Sunrise industries
Explanation: A sunrise industry is one that is new or relatively new, is growing fast and is expected to become important in the future.

15. **(a)** West Bengal
Explanation: The first textile mill in the country was established at Fort Gloster near Kolkata in 1818 but it closed down after some time.

16. **(a)** Today humidity and frost free climate can be created artificially anywhere
Explanation: Initially this industry flourished in the states of Maharashtra and Gujarat because of favourable humid climate. But today, humidity can be created artificially, and raw cotton is a pure and not weight losing raw material, so this industry has spread to other parts.

17. **(d)** Gurgaon-Delhi-Meerut region
Explanation: Because, Gurgaon, Delhi, and Meerut lie in the northern part of India.

18. **(b)** Decrease in population
Explanation: From the image, we infer that : Death rate is more than birth rate which inturn decreases the population.

19. **(d)** The United Kingdom
Explanation: The United Kingdom has a slow growth rate of population.

20. **(c)** Migration
Explanation: Migration is referred to as the movement of the people within a country or between countries. Migration is another way by which population size changes.

21. **(a)** Industrial belts providing large employment opportunities.
Explanation: Industrial areas provide employment opportunities. A large number of people are attracted to these areas. Osaka in Japan and Mumbai in India are two densely populated areas.

22. **(b)** Human Beings
Explanation: People are a nation's greatest resource. It is people with their demands and abilities that turn them into 'resources'. Hence, human resources are the ultimate resource.

23. **(a)** Thickly populated regions
Explanation: The four major geographical factors which affect the distribution of population are a relief (shape and height of land), climate, availability of water, and resources like soil and minerals.

24. **(d)** unskilled, skilled and highly skilled
Explanation: On the basis of skill, we can classify labour (people) employed in the process of production into three groups:
    i. unskilled (no specific skill),
    ii. skilled (has the basic skills required for the job)
    iii. highly skilled (has expertise in the skills required for the job).

25. **(c)** 2nd
Explanation: According to the population, India ranked 2nd in the world.

26. **(b)** New Zealand
Explanation: The country which does not have a high growth rate of population is New Zealand.

27. **(b)** Only A
Explanation: Population density is the number of people living in a unit area of the earth's surface. It is normally expressed as per square km. The average density of population in the whole world is 45 persons per square km. South-Central Asia has the highest density of population followed by East and South East Asia. Average density of the population in India is 324 persons per square km.

28. **(b)** Impartial
Explanation: Impartiality is a principle of justice holding that decisions should be based on objective criteria, rather than on the basis of bias, prejudice, or preferring the benefit to one person over another for improper reasons.

29. **(c)** Theft
Explanation: Civil Law deals with any harm or injury to the rights of individuals. For example, disputes relating to the sale of land, purchase of goods, rent matters, divorce cases.

30. **(b)** Appeal
Explanation: In law, an appeal is a process in which cases are reviewed, where parties request a formal change to an official decision. Appeals function both as a process for error correction as well as a process of clarifying and interpreting the law.

31. **(a)** 1966
Explanation: The High Court of Delhi came up in 1966.

32. **(c)** K.G. Balakrishnan
Explanation: The Chief Justice of India (CJI) is the head of the judiciary of India and the Supreme Court of India. The CJI also heads their administrative functions. On 8 June 2000, K.G.Balakrishnan was appointed a judge of the Supreme Court. He was sworn in as the Chief Justice of India on 14 January 2007.

33. **(d)** Record the evidence
Explanation: The judge hears all the witnesses and any other evidence presented by the prosecution and the defence. The judge decides whether the accused person is guilty or innocent on the basis of the evidence presented and in accordance with the law.

34. **(d)** On 26 January 1950
Explanation: The Supreme Court of India came into existence on 26th January 1950 and is located on Tilak Marg, New Delhi.

35. **(a)** Article 22
Explanation: Article 22

36. **(b)** Cross examination
Explanation: A function of Defence lawyer is to cross-examine all the prosecution witnesses.

37. **(a)** Cross-examine the witnesses
Explanation: The public prosecutor is an important officer who cross-examines the witness.

38. **(b)** the act of being fair & not favoring one side over others
Explanation: Impartial means treating all rivals or disputants equally. The act of being fair & not favoring one side over others.

39. **(a)** Judge
Explanation: A person is guilty or innocent, that is for the judge to decide.

40. **(c)** Article 22
Explanation: Under Article 22, "The arrested person should be protested before a magistrate within 24 hours of the arrest".