

FRONTRUNNER 007

# FRONTRUNNER EXAM

## STANDARD EIGHT 2021

### SCIENCE

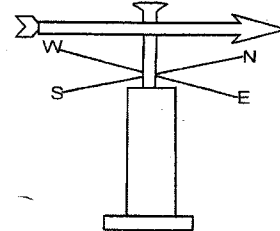
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Time: 1 Hour 40 Minutes

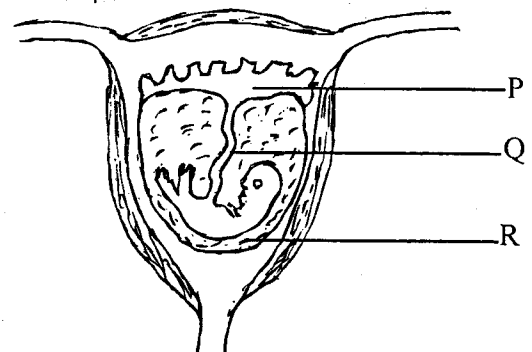
- Which one of the following excretory products is **incorrectly** matched with the body organ through which it is excreted?
  - Urea - kidney.
  - Sweat - lungs.
  - Excess water - skin.
  - Carbon dioxide - lungs.
- During a science lesson on miscibility in liquids, standard seven pupils carried out an experiment and made the following observations: Liquid **P** mixed with liquid **Q** but did not mix with liquid **R**. Liquid **S** mixed with liquid **R** but did not mix with liquid **Q**. Which one of the following would be the **likely** names of liquids **Q**, **R**, **S** and **P** respectively?
  - Ink, water, milk, cooking oil
  - Milk, ink, petrol, kerosene
  - Engine oil, water, milk, petrol
  - Kerosene, cooking oil, water, milk
- Standard five pupils were told to name the parts of the alimentary canal. Which group gave the **correct** answer?
  - Group **B**: Small intestine, liver, stomach.
  - Group **A**: Large intestine, mouth, pancreas.
  - Group **D**: Rectum, duodenum, gall bladder.
  - Group **C**: Ileum, oesophagus, large intestine.
- The following are ways of educating masses as a control measure for HIV/AIDS. Which one is **not**?
 

A. Newspapers	B. Public rallies
C. Workshops	D. Seminars.
- Which one of the following vaccines is administered in infants at the age of 6th, 10th and 14th week?
  - Anti-polio and BCG.
  - BCG and anti-measles.
  - Anti-measles and DPT.
  - DPT and anti-polio.
- A flower whose stigma is inside the flower is **not** likely to
  - have a sweet scent
  - be large in size

- have feathery stigma
  - produce few pollen grains.
- The diagram below shows a weather measuring instrument.



- Which statement below is **not true** about the above weather instrument?
- The tail-end should be made heavier than the arrowhead.
  - It is used to measure the strength and direction of wind.
  - The arrowhead shows the direction from which the wind is blowing.
  - It works under the principle of air in motion.
- Which one of the following factors determines the roughness or smoothness of a soil type?
    - The water retention ability of the soil.
    - The colour of the soil type.
    - The amount of water in the soil.
    - The size of the soil particles.
  - Which one of the following is **not** a benefit of using inorganic manure?
    - It is needed in small quantities.
    - It is easily absorbed by plants.
    - It does not pollute the soil.
    - It supplies specific plant nutrients.
  - The diagram below shows the development of foetus in the human body.



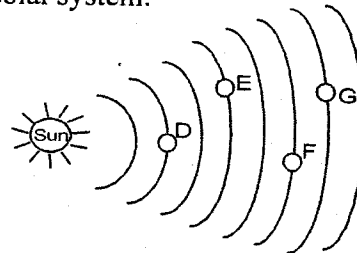
Name the parts marked P, Q, R.

R	Q	P
A. Placenta	Umbilical cord	Amniotic fluid
B. Amniotic fluid	Umbilical cord	Placenta
C. Umbilical cord	Amniotic sac	Foetus
D. Amniotic sac	Placenta	Amniotic fluid

11. Cedar, moss and grass have one thing in common. It is that
- they are non-flowering plants
  - they are non-green plants
  - they are green plants
  - they are flowering plants.
12. Standard five pupils carried out an experiment to find out the rate at which water drains in different soils. Which one of the following materials was **not** necessary to bring to class?
- Identical tubes.
  - Identical funnels.
  - Equal amount of cotton wool.
  - Equal amount of different soils.
13. The following are the stages of germination in a bean seed but not in their correct order.
- The seeds swell up and burst open.
  - The radicle emerges.
  - The seeds absorb water.
  - The plumule emerges.
- Which one of the following shows the **correct** order of the above stages?
- (iv), (i), (iii), (ii)
  - (iii), (i), (iv), (ii)
  - (ii), (i), (iv), (iii)
  - (iii), (i), (ii), (iv)
14. Which one of the following consists of conserved livestock feeds?
- Silage and hay.
  - Fodder and pastures.
  - Pastures and concentrates.
  - Concentrates and fodder.
15. The following are ways of conserving water. Which one can farmers apply during the rainy season?
- Mulching
  - Recycling
  - Harvesting
  - Re-using
16. The following statements are true about the different types of clouds. Which one is **not**?
- The clouds that bring rain appear low in the sky.
  - The clouds that bring about fair weather are dark and mountaneous.

- The clouds that are found high in the sky indicate fair weather.
- The clouds that are dark appear like huge mountains.

17. Which one of the following types of foods are **not correctly** matched to their group?
- Milk, green grams - proteins.
  - Arrow roots, cassava - carbohydrates.
  - Grapes, water melon - vitamins.
  - Groundnuts, cashewnuts- carbohydrates.
18. Which one of the following is **not** a sign of ill-health in livestock?
- Rough skin coat.
  - Increased appetite.
  - Loss of weight.
  - Stunted growth.
19. The diagram below shows the planets in the solar system.



Which one of the following shows the correct order of the named planets from the smallest to the largest?

- D, E, F, G
  - F, G, D, E
  - E, G, D, F
  - E, D, G, F
20. Scholar, a standard four pupil, filled a polythene paper with water. She used a pin to make holes at different parts of the paper. Which one of the following was she likely to be investigating? Pressure in liquids
- is exerted equally in all directions
  - increases as the depth increases
  - is equal at the same depth
  - increases with an increase in height.
21. Which one of the following pollutants of water **mainly** leads to the spread of waterborne diseases?
- Oil spills.
  - Farm chemicals.
  - Domestic waste.
  - Acid rain.
22. Tush used the following process in separating a certain mixture:

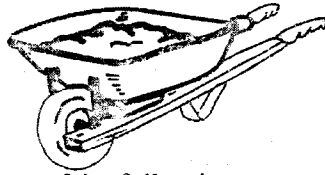
Use of a magnet → dissolving → filtering → evaporating

Which one of the following mixtures was he **likely** to be separating?

- Pieces of copper metal, salt and sand.
- Sand, sugar and iron fillings.
- Sugar, wheat flour, sand.
- Beans, chaff, iron fillings.

23. Which one of the following **correctly** shows the uses of the second largest and the smallest components of air **respectively**?
- Making food in legumes and preserving soft drinks.
  - Breathing and making plant food.
  - Germination of seeds and putting out fire.
  - Burning and making fluorescent tubes.

24. The diagram below shows a simple lever.



Which one of the following statements is **true** about the above lever when in use?

- It belongs to the same class as a claw hammer.
  - The position of the load is between the fulcrum and the effort.
  - It belongs to the first class of levers.
  - The position of the effort is between the fulcrum and the load.
25. The following are effects of water pollution **except**
- respiratory diseases
  - death of aquatic life
  - rusting of iron sheets
  - spread of waterborne diseases.
26. Among the following types of soil erosion, which one is characterised by formation of shallow channels on the ground?
- Gully erosion.
  - Splash erosion.
  - Rill erosion.
  - Sheet erosion.
27. Which one of the following activities **does** not need the force that acts on the opposite direction of the applied force?
- Riding.
  - Swimming.
  - Braking.
  - Walking.
28. Which one of the following adaptations of survival are **not true** in sisal and rice plants?
- | <u>Sisal</u>           | <u>Rice</u>            |
|------------------------|------------------------|
| A. Has sunken stomata  | Has many stomata       |
| B. Has long deep roots | Has a thin cuticle     |
| C. Has silvery hairs   | Has air sacs           |
| D. Has a flexible stem | Has needle-like leaves |
29. Which one of the following animals have a varied body temperature but have no scales?
- Frog and lizard.
  - Newt and salamander.

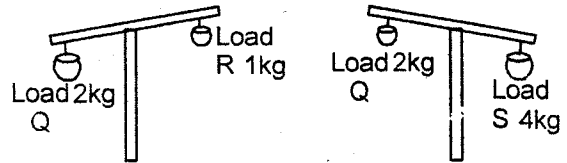
- Shark and bat.
- Toad and spiny ant-eater.

30. The diagram below shows the beak of a certain bird.



Which one of the following pair of birds have the type of beak shown above?

- Kiwi and hawk.
  - Flamingo and duck.
  - Hen and parrot.
  - Kite and seagul.
31. The following are nutritional deficiency diseases. Which one is caused by lack of calcium and phosphorus in the diet?
- Rickets
  - Anaemia
  - Marasmus
  - Kwashiorkor.
32. Which one of the following consists of the biological part of the environment?
- Light and locusts.
  - Ants and sweet potatoes.
  - Buildings and heat.
  - Soil and sodom apple.
33. The diagram below shows three different loads that were weighed by standard six pupils from Kara primary school.

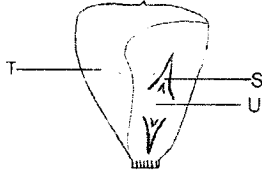


Which one of the following conclusions didn't the pupils make?

- The mass of load S is twice that of load Q
  - Load R is half as heavy as load Q
  - Load Q is twice as heavy as load S
  - The mass of load Q is twice that of load R
34. During a Science lesson, different groups of pupils mixed small pieces of different metals as shown below:
- Group A: Steel and silver  
 Group B: Aluminium and nickel  
 Group C: Alnico and cobalt  
 Group D: Iron and copper
- Which of the above groups **could not** use a magnet to separate their mixture?
- Group C
  - Group D
  - Group A
  - Group B
35. Which one of the following effects of HIV/AIDS is **correctly** grouped?
- |                          |                       |                       |
|--------------------------|-----------------------|-----------------------|
| Effects on an individual | Effects on the family | Effects on the nation |
|--------------------------|-----------------------|-----------------------|

- A. Loss of self-esteem    Lack of parental care    Poor health care
- B. Emotional weakness    Poor health care    Decrease in agricultural production
- C. School drop outs    Many deaths    Low economic production
- D. Making one unproductive    Physical weakness    Increase in number of ophans

36. The diagram below shows a monocot seed.



The parts marked T, S, U respectively are

- A. Style, scar, endosperm, cotyledon
  - B. Cotyledon, radicle, endosperm
  - C. Endosperm, radicle, cotyledon
  - D. Endosperm, plumule, cotyledon
37. Which one of the following is a way of controlling internal livestock parasites?
- A. Dipping.                      B. Spraying.
  - C. Dosing.                        D. Dusting.
38. The following statements describe the uses of light energy **except**
- A. keeping away pests in the house
  - B. keeping the house warm during cold weather
  - C. providing safety in the house
  - D. reading comfortably.

**The diagram below shows a weather chart compiled by pupils. Use it to answer the question below.**

DAY	MORNING	AFTERNOON
MON		
TUE		
WED		
THUR		

39. Which one of the following statements is **false**?
- A. Monday morning had the most favourable weather for drying clothes.
  - B. On Thursday morning, pupils carried umbrellas to school.
  - C. Pupils flew kites on Tuesday afternoon.
  - D. On Wednesday farmers could not winnow their grains.
40. Esther cut a paper into small pieces. She then dropped them towards burning fire and realised that they did not fall on the fire but moved away from the fire. Which one of the following aspects was she investigating?

- A. Convection in liquids. B. Convection in gases.
  - C. Conduction in gases. D. Radiation in air.
41. Which one of the following ways of maintaining simple tools is **not** applicable to all the tools?
- A. Cleaning after use.
  - B. Using the tool for the right work.
  - C. Repairing broken handles.
  - D. Proper storage of the tools.
42. The following are properties of light energy. Which one of them leads to the formation of a spectrum?
- A. Refraction.                      B. Reflection.
  - C. Bending.                         D. Dispersion.
43. Which one of the following materials is **correctly** grouped?
- A. Dirty water - Translucent material.
  - B. Mirror - Opaque material.
  - C. Dirty water - Translucent material.
  - D. Iron sheet - Transparent material.
44. A standard seven science teacher came to class with a candle, a bent pipe, a matchbox and a straight pipe. Which one of the following was he **likely** to teach about?
- A. Light travels in all directions from the source.
  - B. Light bends as it hits a shiny smooth surface.
  - C. Light travels in a straight line from the source.
  - D. Light bends as it moves from one medium to another.
45. Noise refers to loud, unpleasant sound. Which one of the following is **not** caused by noise pollution?
- A. Deafness.                        B. Dumbness.
  - C. Discomfort.                      D. Irritation.
46. Static electricity is produced when
- A. surfaces are rubbed
  - B. turbines are used to drive generators
  - C. underground hot springs are used to give electricity
  - D. dry cells are connected in series.
47. Which one of the following foods can **best** be preserved by refrigeration?
- A. Mutton and beans
  - B. Bacon and honey
  - C. Milk and pork
  - D. Vegetables and maize grains.
48. Which one of the following factors affecting floating and sinking makes wooden materials to float on water?
- A. Shape
  - B. Size
  - C. Density
  - D. Material
49. Among the following substances, which one of them have indefinite volume?
- A. Carbon dioxide and milk.
  - B. Ice and kerosene.
  - C. Oxygen and nitrogen.
  - D. Stone and wood.
50. Which one of the following materials is an insulator?
- A. Carbon
  - B. Glass
  - C. Silver
  - D. Tin.