

JESMA K.C.P.E PREDICTION 2021

010



- SCIENCE -

March 2021 - 1 hour 40 minutes



READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 90 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the ANSWER SHEET, not in the question booklet.

HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil.
5. Make sure that you have written on the answer sheet:

YOUR INDEX NUMBER

YOUR NAME

NAME OF YOUR SCHOOL

6. By drawing a dark line inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes.
8. Keep your answer sheet as clean as possible and do not fold it.
9. For each of the questions 1-90 four answers are given. The answers are lettered A, B, C and D. In each case only ONE of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by drawing a dark line inside the box in which the letter you have chosen is written.

Example

In the question booklet:

33. The BEST way of controlling pigweed in the farm is by

- A. washing
- B. use of herbicide
- C. digging out
- D. uprooting

The correct answer is B (use of herbicide)

On the answer sheet:

- A | B | C | D A | B | C | D A | B | C | D A | B | C | D

11. Your dark line MUST be within the box.
12. For each question ONLY ONE box is to be marked in each set of four boxes.

This question paper consists of 7 printed pages. Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing.

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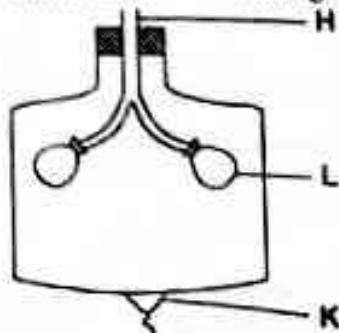
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Turn Over

1. A lactating mother needs food rich in extra fluids for,
- formation of strong bones in the baby.
 - replacing blood lost during birth.
 - increasing milk production.
 - protecting the baby against diseases.

2. The diagram below shows a set up that can be used to demonstrate a breathing system.



What happens on the part marked K during breathing in?

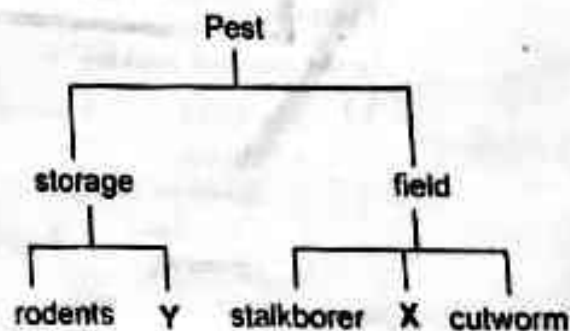
- Move downwards.
 - Move inwards.
 - contracts.
 - move upwards.
3. Which one of the following statements is **TRUE** about HIV/AIDS stages?
- Window stage has visible signs.
 - During symptomatic stage a person may test negative.
 - During incubation stage a person test positive and no signs.
 - Full blown in the most dangerous stage.
4. Fertilization in plants takes place when the,
- pollen tube breaks and enters the ovary.
 - pollen grains and ovules fuses.
 - pollen grains fall on the stigma and germinate.
 - pollen grains is transferred from anthers to stigma.
5. Which one of the following is a natural way of lighting a house? Using
- large window.
 - electric bulbs.
 - hurricane lamps.
 - torch.

6. Friction is a force that opposes motion. In which of the following ways is it increased?
- Using lubricants.
 - Using roller.
 - Streaming bodies.
 - Having treads.

7. Class VI pupils filled a transparent hottle with garden soil and water. It was shaken and left to stand. Which two component of soil were they **LIKELY** to observe during the experiment?
- Water and humus.
 - Mineral particles and organic matter.
 - Air and organic matter.
 - Water and air.

8. The soil with **BEST** drainage is also **LIKELY** to have,
- a lot of humus.
 - large air space.
 - good water retention.
 - smooth texture.

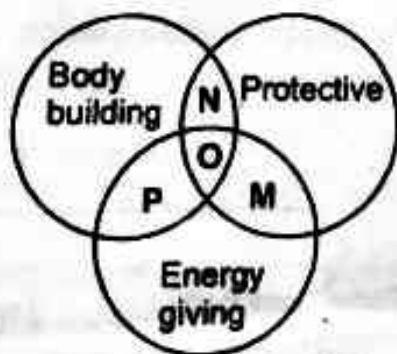
9. A pupil classified pests as shown below



Which of pests were **LIKELY** to be represented by X and Y?

- | X | Y |
|--------------|-------------|
| A. Weevils | White ants |
| B. Locusts | Weaverbirds |
| C. Aphids | Weevils |
| D. Armyworms | Moles |

10. Bean seeds stored food in the,
 A. endosperm.
 B. embryo.
 C. micropyle.
 D. cotyledon.
11. The following are characteristics of a certain weed.
 i) *Poisonous*.
 ii) *Have thorns on fruit*.
 iii) *Have white flower*.
 The weed is **LIKELY** to be a
 A. datura.
 B. pigweed.
 C. mexican marigold.
 D. sodom apple.
12. Which one of the following nutritional deficiency diseases is a person who lost alot of blood **LIKELY** to suffer from,
 A. anaemia.
 B. marasmus.
 C. kwashiorkor.
 D. rickets.
13. The chart below represent a simple classification of food.

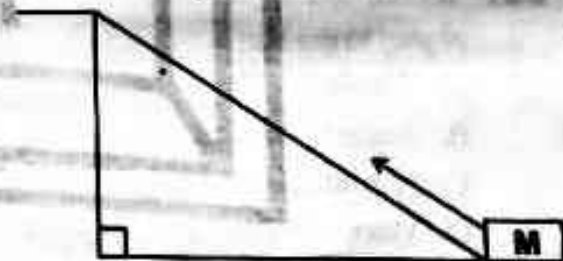


Which one of the following food is **LIKELY** to fit in letter M?

- A. Maize.
 B. Avocado.
 C. Groundnut.
 D. Kales

14. Which one of the following pairs consists of transparent materials?
 A. Skylight and paper.
 B. **Mirror and clean water**.
 C. Windscreen and water.
 D. Frosted glass and oil.
15. Pressure in liquids increases when,
 A. amount of water is increased.
 B. the size of hole is increased.
 C. depth of water is decreased.
 D. the diameter of the tin is increased.
16. Which one of the following groups of substances has indefinite shape and volume?
 A. Spirit, water, oil.
 B. Sand, oxygen, powdered milk.
 C. Oxygen, water vapour, nitrogen.
 D. Salt, soil, ice.

17. The simple tool below was made by a class eight pupil.

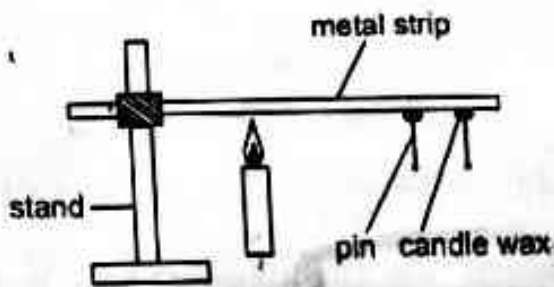


The simple tool shown make work easier by

- A. increasing the effort distance.
 B. reducing the load distance.
 C. reducing the amount of work done.
 D. changing direction of applied force.
18. The following are deciduous teeth **EXCEPT**
 A. incisors.
 B. premolars.
 C. canine.
 D. molar.

30. Which one of the following materials would pollute the environment the **LEAST** when used as fuel?
- Wood.
 - Biogas.
 - Oil.
 - Cowdung.

31. The setup below was used to investigate a certain property of matter.



- After a few minutes, the pins dropped. The pins dropped due to,
- conduction, convection and radiation.
 - conduction and radiation only.
 - convection, and conduction only.
 - conduction only.

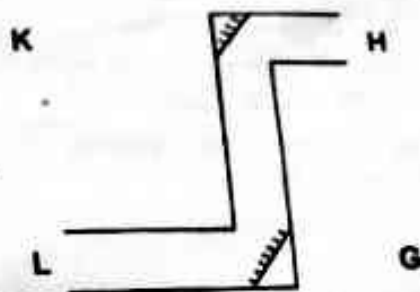
32. Which one of the following is a disadvantage of zero-grazing as a system of rearing animals?
- Animal occupy small space.
 - Required a lot of labour.
 - There is little wastage of feed.
 - Manure accumulate fast.

33. A farmer who practice drip irrigation conserve water by,
- reusing water.
 - recycling.
 - using it sparingly.
 - retaining harvested water.

34. Vaccine given 9 months protect an infant against,
- tetanus and polio.
 - hepatitis B and Tuberculosis.
 - Diphtheria and whooping cough.
 - Measles and yellow fever.

35. Sound travel **BEST** in,
- water.
 - gas.
 - metal.
 - oxygen.

36. The diagram below represents a periscope and the position of the eye at point H.



The image is at position,

- G
- L
- H
- K

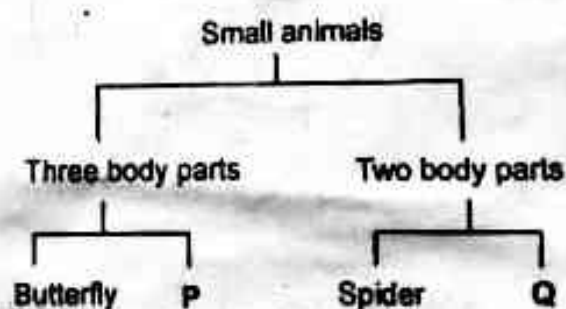
37. Non conductors of electricity can be used in making,
- handle of cooking spoons.
 - insulators.
 - fuses.
 - switches.

38. The **BEST** way to get rid of used plastic containers from the environment is to,
- recycle.
 - burn.
 - bury deep in the soil.
 - reuse.

39. Which one of the following materials is magnetic?
- Aluminium plate.
 - Copper ring.
 - Steel pins.
 - Silver coin.

19. The vessels through which blood flows to the heart,
- carry oxygenated blood.
 - carry blood under high pressure.
 - have valves.
 - have thick walls.
20. The juices which complete the breaking down of carbohydrates and fat and oil are produced in the,
- pancreas and the stomach.
 - mouth and liver.
 - small intestines and large intestines.
 - liver and stomach.
21. Which of the following pairs can be observed in the sky during day and night?
- stars and clouds.
 - sun and moon.
 - moon and stars.
 - clouds and moon.
22. Which one of the following is the closest planet to the sun?
- Saturn.
 - Jupiter.
 - Neptune.
 - Mars.
23. Which one of the statement is **TRUE** about the windsock?
- It measures two aspects of weather.
 - The arrow head should be of the same size as the tail.
 - The arrow points to the direction from which wind blows.
 - Head arrow is improvised using manilla paper.
24. Which one of the following is a physical change in **BOTH** boys and girls during adolescent stage?
- Production of sex cells.
 - Voice breaking.
 - Enlargement of shoulders.
 - Hips broaden.

25. Which one of the following animals have scales and constant body temperature?
- Whale.
 - Shark.
 - Tilapia.
 - Ostrich.
26. Which one of the following is a **LEAST** factor to consider when separating a mixture involving solids?
- Ability to dissolve in water.
 - The colour of the solids.
 - Ability to be attracted by magnet.
 - The size of the solids.
27. Which one of the following is a straight fertilizer?
- Farmyard manure.
 - Double super phosphate.
 - Diammonium phosphate.
 - Monoammonium phosphate.
28. Which one of the following is a change of state?
- Solids expanding after being heated.
 - Salts dissolving in water.
 - Water boiling to steam.
 - Soil forming mud in water.
29. The chart below show a simple classification of small animals.



Which one of the following can represent P and Q?

- | | |
|-------------|-----------|
| P | Q |
| A. Crab | Weevil |
| B. Bedbug | Termite |
| C. Housefly | Millipede |
| D. Flea | Tick |

40. The diagram below shows a certain root system.



Which one of the following pairs of plants have the root system shown?

- A. Millet and Rice.
- B. Sorghum and sugarcane.
- C. Bean and grass.
- D. Greengram and mango.

41. The following are signs of a certain disease.

- i) *Abdominal pain.*
- ii) *Muscle and joint pains.*
- iii) *Headache.*
- iv) *Rashes on the skin.*

The disease is **LIKELY** to be,

- A. bilharzia.
- B. malaria.
- C. typhoid.
- D. cholera.

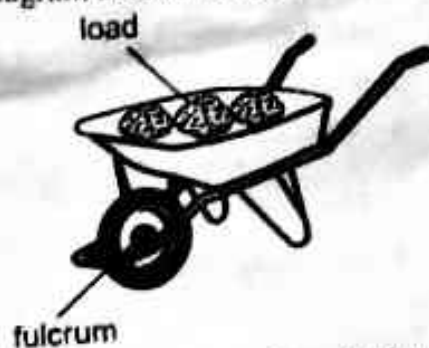
42. Flowers M, N, O and P have the following characteristics.

- M - Small in size.
- N - Hanging stigma.
- O - Sticky stigma.
- P - Light pollen grains.

Which two flowers are insect pollinated?

- A. M and P
- B. M and O
- C. O and P
- D. N and P

43. The diagram below shows a lever in use.



The machine makes work easier by,

- A. reducing the effort used.
- B. increasing the effort distance.
- C. reducing the work done.
- D. changing the direction of force.

44. Which of the following is **CORRECT** about weaning?

- A. Introduced different types of food at once.
- B. Stop breastfeeding and give milk and food.
- C. Make the baby eat a lot of food to grow big.
- D. Breastfeeding should continue as you introduce solid foods.

45. The **MAIN** reason for using farmyard manure in the compost heap is to,

- A. add more nutrients.
- B. speed up decomposition.
- C. to provide nutrients to the decomposers.
- D. introduce bacteria to the compost.

46. Which is the **CORRECT** order of separating a mixture of iron filings, maize grains and salt solution?

- A. Filtering, use of magnet, evaporation.
- B. Decanting, picking, winnowing.
- C. Use of magnet, picking, filtering.
- D. Picking, use of magnet, winnowing.

47. Which of the following pairs require a medium of transmission?
- A. Heat and light.
 - B. Electricity and sound.
 - C. Sound and light.
 - D. Electricity and heat.
48. Which of the following diseases is immunisable but **NOT** communicable?
- A. Tetanus.
 - B. Tuberculosis.
 - C. Measles.
 - D. Malaria.
49. Which of the following methods of preserving food preserves food by coating and removing water?
- A. Use of ash.
 - B. Canning.
 - C. Smoking.
 - D. Sun drying.
50. After fertilization, the cell formed develop through the following stages.
- i) *Baby*
 - ii) *Embryo*
 - iii) *Zygote*
 - iv) *Foetus*
- Which of the following shows the **CORRECT** order of the development?
- A. (iv), (ii), (iii), (i)
 - B. (iii), (iv), (ii), (i)
 - C. (ii), (iii), (iv), (i)
 - D. (iii), (ii), (iv), (i)