

— SCIENCE —

JUNE, 2022 - 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully)

- 1 You have been given this question booklet and a separate answer sheet. The question booklet contains 50 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 only
- 5 Confirm the answer sheet that you have been provided with has the following:
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 ode 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 the sheet as clean as possible and do not fold it.
- 9 For each of the questions 1 – 50, 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:

4. Which chemical in burning tobacco causes addiction?
A. Carbon monoxide
B. Tar
C. Narcotic
D. Nicotine

The correct answer is **D (Nicotine)**

On the answer sheet:

4. A B C D
 14. A B C D I
 24. A B C D I
 34. A B C D I
 44. A B C D I

In the set of boxes numbered 4, the box with the letter D is printed in it is marked.

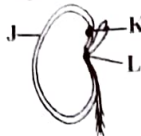
11. Your **dark line MUST** be within the box.
12. For each question **ONLY ONE** box is to be marked in each set of four boxes.



This Question Paper consists of 7 printed pages and 1 blank page.

1. The sheet of muscle that separates the chest from abdomen is known as
- Liver
 - Trachea
 - Diaphragm
 - Pancreas.

2. The diagram below represents a bean seed.



Which of the following **correctly** represents the parts labelled **J, K and L** respectively?

J	K	L
A. Cotyledon	Micropyle	Scar
B. Testa	Micropyle	Hilum
C. Cotyledon	Scar	Micropyle
D. Seedcoat	Scar	Micropyle

3. The following are stages of birth process.
- Removal of after birth.
 - Tying and cutting of the umbilical cord.
 - Bursting of amniotic sac.
 - Labour pain.
 - Dilation of cervix.
 - Actual birth.
- Which of the following shows the **correct** order of the steps in the process?
- (iv), (v), (iii), (vi), (ii), (i)
 - (iv), (iii), (v), (vi), (ii), (i)
 - (iii), (vi), (i), (v), (iv), (ii)
 - (ii), (iv), (v), (vi), (iii), (i)

4. Class five pupils noted that the sock of windsock was pointing to the East. Which direction would the tail of a windvane in the same spot point?
- East
 - West
 - North
 - South.

5. The diagram below represents parts of the human digestive system.



Which of the parts marked **Q, R, S and T** does digestion of fats and oil take place?

- T
 - R
 - Q
 - S
6. Which of the following groups of foods provides animals with proteins?
- Sunflower, maize germ, bonemeal.
 - Wheat husks, oat, cotton seeds.
 - Fishmeal, clover, glycine.
 - Saltlicks, bonemeal, fish meal.
7. Which of the following foods are required for a person suffering from anaemia?
- Beans, rice, maize.
 - Liver, spinach, kidney.
 - Bananas, fish, eggs.
 - Millet, sorghum, wheat.

8. The diagram below represents a type of soil erosion.



The type of soil erosion shown above can

- best** be prevented by
- planting cover crops
 - building gabions
 - terracing
 - mulching.

9. Which of the following is a macro-nutrient?
 A. Magnesium
 B. Copper
 C. Manganese
 D. Iron.

10. The following are sources of current electricity **except**
 A. torch
 B. car battery
 C. solar panel
 D. bicycle dynamo.

11. The following are natural sources of light **except**
 A. sun
 B. firefly
 C. electricity
 D. glow worms.

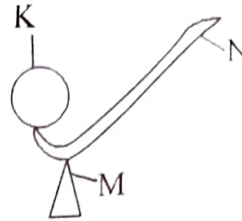
12. Which of the following is **not** true about the type of teeth shown below?



- A. They have ridges.
 B. They are the last to be shed.
 C. They are neither sharp nor pointed.
 D. They are 12 in total in the human mouth.
13. Which one of the following implants itself on the uterine wall in the human reproductive system?
 A. Zygote
 B. Foetus
 C. Baby
 D. Embryo.
14. Which of the following statements **best** describes matter?
 A. Matter has mass and occupies space.
 B. Matter is anything that changes its state on heating.
 C. Matter is anything that we can see.
 D. Matter is anything that is found in liquid form.

15. The following are industrial uses of water **except**
 A. washing coffee berries
 B. making pulp
 C. surfing
 D. making fountains.

16. The diagram below represents a lever in use.



- The parts labelled **K, M** and **N** respectively are
 A. Load, pivot, effort
 B. Fulcrum, load, effort
 C. Effort, fulcrum, load
 D. Load, effort, fulcrum.

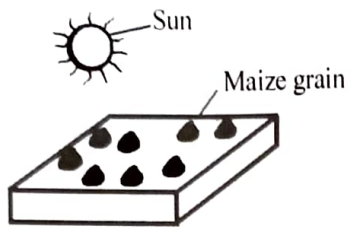
17. Which of the following crops is **correctly** matched to its group?
 A. Maize- Cash crop
 B. Coffee - Beverage
 C. Sunflower- Fibre crop
 D. Sisal- Oil crop.

18. The following are characteristics of a certain animal.
 (i) Warm blooded.
 (ii) Lay eggs.
 (iii) Suckle their young ones.
 The animal described above is **likely** to be
 A. shark
 B. duck-billed platypus
 C. crocodile
 D. hen.

Turn over

19. The following are ways of caring for our teeth **except**
- A. using dental floss
 - B. using warm salty water when brushing
 - C. using toothpicks
 - D. brushing teeth regularly.

20. The method of preserving food shown below preserves food by



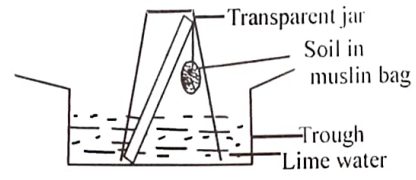
- A. making bacteria inactive
 - B. killing bacteria
 - C. removing oxygen
 - D. dehydrating food
21. Which of the following states of matter has definite volume and mass only?
- A. Air
 - B. Water
 - C. Ice
 - D. Smoke.
22. In which of the following methods of grazing are animals allowed to graze in an area divided using permanent fences?
- A. Stall feeding
 - B. Paddock grazing
 - C. Strip grazing
 - D. Herding.

23. The diagram below represents a blood vessel.



- Which of the following statements is **incorrect** about the above blood vessel?
- A. The blood vessel carries blood under high pressure.
 - B. The blood vessel carries oxygenated blood.
 - C. The blood vessel carries blood away from the heart.
 - D. The blood vessel carries blood in pulses.

24. The experiment below was set by class five pupils.



- What were the pupils investigating?
- A. Air in soil.
 - B. Humus in soil.
 - C. Living organisms in soil.
 - D. Water in soil.
25. A person had the following signs and symptoms.
- (i) Pain in joints.
 - (ii) Bloating stomach.
 - (iii) Skin rash.
 - (iv) Mild diarrhoea.
 - (v) Fever.
- The person was **likely** to be suffering from
- A. Malaria
 - B. Typhoid
 - C. Cholera
 - D. Bilharzia.

26. The figure below shows a certain type of interdependence.



The figure above shows that animals depend on plants for

- A. food
 - B. shade
 - C. shelter
 - D. medicine.
27. Heat from the sun reaches us through
- A. radiation
 - B. convection
 - C. conduction
 - D. radiation and convection.
28. Which of the following diseases is a child immunised against at 9 months and at birth **respectively**?
- A. Polio and measles
 - B. Yellow fever and BCG
 - C. BCG and polio
 - D. Diphtheria and measles.
29. Which of the following changes during adolescence takes place in girls **only**?
- A. Wet dreams.
 - B. Increase in weight.
 - C. Production of mature sex cells.
 - D. Menstrual flow begins.

30. The **correct** procedure of separating a mixture of water, sugar and soil is
- A. dissolving, filtering, evaporating.
 - B. sieving, dissolving, evaporating.
 - C. filtering, evaporating.
 - D. sieving, decanting, evaporating.

31. Which of the following is **not** a way in which HIV and AIDS is spread?
- A. Sleeping together.
 - B. Through blood tranfusion.
 - C. Sharing sharp piercing tools.
 - D. Unprotected sexual intercourse.

32. The diagram below shows a sport shoe.



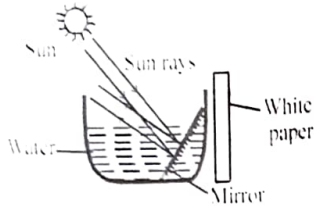
The shoe is spiked in order to

- A. reduce grip
 - B. increase friction
 - C. make the shoe attractive
 - D. last longer.
33. A patient who has bloated stomach and sores in the intestines is also **likely** to have
- A. skin rashes
 - B. violent diarrhoea
 - C. an itch around the bladder
 - D. blood in the stool.

Turn over

34. Which of the following pairs consists of major non-living components of environment?
- A. Plants and animals.
 - B. Plants and air.
 - C. Soil and air.
 - D. Air and animals.

35. Class six pupils assembled the following materials as shown below.



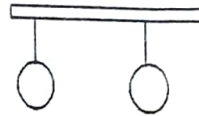
Which aspect of light were they investigating?

- A. Reflection
 - B. Refraction
 - C. Making rainbow
 - D. Dispersion.
36. The following animals have a similar way of movement **except**
- A. chicken
 - B. ostrich
 - C. horse
 - D. camel.
37. Water can be conserved in the following ways **except** by
- A. mulching
 - B. re-using
 - C. harvesting
 - D. filtering.

38. The following are signs and symptoms of a certain sexually transmitted infection.
- (i) Pus-like smelly discharge through sexual organs.
 - (ii) Burning sensation during urination
 - (iii) Pain in the lower abdomen.

The signs and symptoms described above are **likely** to be for

- A. HIV and AIDS
 - B. Syphilis
 - C. Gonorrhoea
 - D. Chancroid.
39. Two balloons were rubbed against different materials. They were then brought together as shown below.



What **best** described what happened.

- A. The balloons attracted.
 - B. The balloons repelled.
 - C. The balloons attracted then repelled.
 - D. The balloons neither attracted nor repelled.
40. When modelling the solar system, a light bulb is used to represent
- A. the planets
 - B. the moon
 - C. the sun
 - D. stars.
41. The following are protective foods **except**
- A. avocado
 - B. melon
 - C. green bananas
 - D. strawberry.

42. The table below show crop pests and damages they cause on crops. Which pest is **not correctly** matched with the damage it causes?

Pests	damage
A. Weaver birds	Eat grains before maturity.
B. Aphids	Eat leaves of crops
C. Cutworms	Cut stems of young seedlings at ground level.
D. Stalk -borers	Bore holes on stems.

43. Which of the following groups of substances consists of **only** floaters?
- Wax, plastic, wood.
 - Nail, wood, paper.
 - Bottle top, copper wire, plastic.
 - Wood, marble, stone.
44. Which of the following intestinal worms can be caused by eating raw meat?
- Roundworms
 - Hookworms
 - Tapeworm
 - Threadworms.
45. The soil that is sticky when wet also
- cracks when dry
 - has the poorest capillarity
 - good for agriculture
 - found in construction sites.
46. Which of the following is an effect of HIV and AIDS to the nation?
- Loss of property.
 - Stigmatization.
 - Low living standards.
 - Congestion in hospitals.
47. The following are importances of lighting a house **except** to
- see clearly
 - attract pests
 - avoid accidents
 - read comfortably.
48. The following are ways of maintaining all simple tools **except**
- repairing broken parts
 - using them for right purpose
 - sharpening them
 - cleaning after use.
49. Which of the following materials **cannot** be used to make wheels?
- Old slippers
 - Maize cobs
 - Bottle tops
 - Stones.
50. Force is measured in
- Kilograms
 - Newtons
 - Centimetres
 - Grams.

Turn over