DAV BR PUBLIC SCHOOL, BINA

HALF YEARLY EXAMINATION SESSION 2024-25

PRACTICE PAPER

Class: VIII **Subject: Science**

Time allowed: 3 Hours **MM: 80**

General instructions:

1 The question paper consists of 2 sections- section A (having 38 questions) and section B (having 10 questions). You have to attempt both the sections.

2 All questions of section A and section B are to be attempted separately.

3 All questions are compulsory.

4 In section A, question 1 to 16 are multiple choice questions and each carry one mark.

5 In section A, question 17 to 19 are assertion and reasoning questions and carry 1 mark each.

6 In section A, question 20 to 32 are very short answer type questions and each carry 1 mark.

7 In section B, question 33 to 38 are short answer type questions and carry 2 marks each.

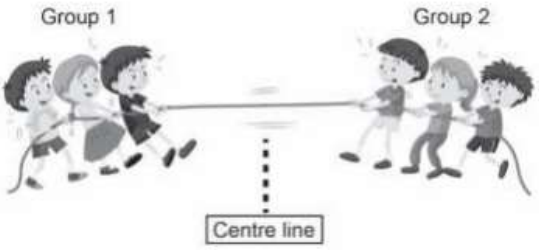
8 In section B, question39 to 45 are short answer type questions (II) and carry 3 marks each.

9 In section B, question 46 to 48 are long answer questions and carry 5 marks each.

SECTION A

I) Select the correct answer for the following choice based question: (1X16=16)

1. Two groups of students are playing tug-of-war.



a) Choose the correct direction of force applied by Group 1 and Group 2.

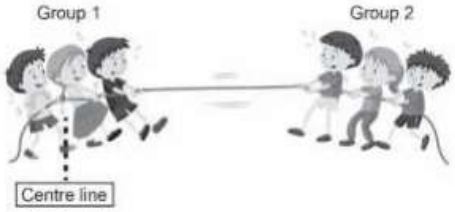
A. 

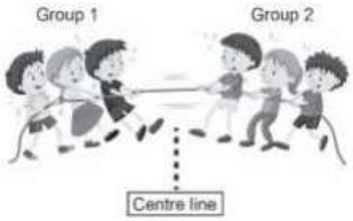
B. 

C. 

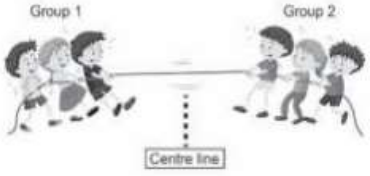
D. 

b)
Group 1 is pulling with 250 N force and Group 2 is pulling with 300 N force.
What would be the likely position of the two groups after a minute of pulling?

A. 

B. 

C. 

D. 

c) For Group 1 to win what will be the correct condition?

A. Group 1 applies greater force

B. Both the groups don't apply force

C. Both the groups apply equal force

D. Group 2 applies greater force.

d) For group 2 to win what will be the correct condition?

A. Group 1 applies greater force
B. Both the groups don't apply force
C. Both the groups apply equal force
D. Group 2 applies greater force.

2. A toddler when looking at the aeroplane for the first time said it to be a bird to his brother, Stavya, in grade 8. To which he responded with a no. The toddler asked him, "then why does it look like a bird". Stavya asked the same question to his mother. His mother, Uma explained the reason to be a way to reduce friction.

a) What friction acts on a flying plane?

A. Static friction
B. Fluid friction
C. Hydraulic friction
D. Rolling friction

b) Why aeroplanes are given resemblance to birds?

A. To enhance their appearance
B. To decrease their efficiency
C. To increase their efficiency
D. To make them elevate friction

c) What is the name of the special shape given to such automobiles?

A. streamlined body
B. Linestream body
C. Frictionless body
D. Bird like body

d) What are fluids?

A. A curved surface object
B. Only air
C. water only
D. substances with tendency to flow

3. Arshita saw Nitin crying over the fear of syringe, as his parents were taking him for a dose of vaccination against chicken pox. She consoled him and shared with him the importance of vaccination against disease causing microorganisms.

a) What is the function of vaccine?

A. To bolster immunity.
B. To fight against immunity
C. To elevate infection
D. To invite invaders to body

b) Disease causing microbes are called?

A. Antibody
B. Pathogens
C. Toxin
D. Vaccine

c) Chicken pox is caused by?

A. Bacteria B. Protozoan

C. Virus D. Fungi

d) What is a vaccine?

A. A solution containing toxins B. Liquid causing diseases

C. A suspension of killed/weak microbes D. Germs

4. Reyansh found Amber burning coal just to play with smoke. He immediately stopped Amber and made him aware of its consequences.

a) What does incomplete burning of coal produce?

A. Coke B. Ash

C. Carbon dioxide D. Carbon monoxide

b) What is the highest grade of coal?

A. Anthracite B. Lignite

C. Bituminous D. Peat

c) What is **NOT** produced by the destructive distillation of coal?

A. Coal tar B. Water gas

C. Coke D. Coal gas

d) Why fuels like coal should be used judiciously?

A. They produce high energy B. they are inexhaustible

C. They are renewable D. They are exhaustible

II. Select the correct answer for the following reasoning and assertion type questions, statements for which are given below: (1X3=3)

a. Both (A) and (R) are true and (R) is the correct explanation of (A)
b. Both (A) and (R) are true and (R) in not the correct explanation of (A)
c. (A) is true but (R) is false
d. (A) is false but (R) is true

17. Assertion: In a voltaic cell, zinc acts as the cathode and copper acts as the anode.

Reason: Sulphuric acid is added to water to make it behave as an electrolyte.

18. Assertion: Use of coal is opted over wood commercially.

Reason: Higher calorific value of a fuel signifies its better efficiency.

19. Assertion: The nucleus is the control center of the cell.

Reason: The nucleus contains the cell's genetic material.

III. Very short answer type questions: (1X13=13)

20. Cytoplasm and nucleoplasm are collectively called _____

21. A vaccine produces immunity by stimulating the production of _____

22. Which gas is liberated during the incomplete combustion of a fuel?

23. Give an example of a cleaner fuel.

24. Wood is renewable or non-renewable source of energy?

25. Arrange the various forms of friction in descending order.

26. The pressure exerted by a given liquid _____ with depth.

27. What process would you opt for coating silver on a steel spoon?

28. What is the color of the luminous zone of the flame?

29. What is referred as the 'Liquid Gold'?

30. Automobiles are given _____ shape to reduce fluid friction.

31. A fruit falling from a tree on Earth, is an example of _____ force.

32. Anode is connected to which terminal of the battery?

IV Short answer type questions: (2X6=12)

33. A marble is allowed to roll down an inclined plane from a fixed height. At the foot of inclined plane, it moves on a horizontal surface

a. Covered with a glass sheet.

b. Covered with a layer of sand.

On which surface it will trace the shortest distance? Justify with reason.

34. State difference between roles played by oxygen and carbon dioxide towards combustion.

35. What cell organelles are utilized by Euglena and Paramoecium for their locomotion?

36. State the relation between the pressure exerted and force applied on a unit area. Represent it as an equation.

37. Mention two ways to increase the conductivity of a liquid? What term is used for the solution so formed?

38. Give two uses of Asphalt.

SECTION B

V Answer the following questions: (3X7=21)

39. 'X' is a type of coal which contains 65% carbon and 'X' is used to prepare a fuel 'Y'.

(a). Identify X and Y.

(b). Write one use of 'Y'

40. State three mandatory conditions for sustenance of combustion.

41. Give reasons for the following statements:

a) Jams and jellies are usually preserved by addition of sugar.

b)Food from puffed cans should not be consumed.

c) Milk is usually boiled before its use.

42. Give reasons for the following:

a) A fire caused by electric short circuit should not be attempted upon to extinguish by pouring water.

b) If the clothes of a person catch fire, the person should be immediately wrapped in a thick blanket.

c) White phosphorous catches fire spontaneously.

43. How can you reduce the friction in the following situations?

a) In shafts of motors.

b) In chains of bicycle.

c) Dragging heavy luggage.

44. Give three uses of the phenomenon of electrolysis.

45. What are non-contact forces? Explain giving examples.

VI Long answer type questions: (5X3=15)

46. (a)When 5.5Kg of a fuel is completely burnt, the amount of heat produced is measured to be 11,000KJ. What is the calorific value of the fuel?

(b)What do you understand by the calorific value of a fuel?

(c)If the calorific values of two fuels, A & B, are 23,000KJ & 32,000 KJ respectively. Which one would you opt for generating energy and why? Mention two characteristics of an ideal fuel.

47. An electrode A is connected to the positive terminal while electrode B is connected to the negative terminal of a battery. There is a switch connected to the circuit to regulate the flow of current through it. The electrodes are immersed in the tap water filled in container.

a) Draw a diagram to depict the set up described.

b) Give the name of the Electrodes A& B.

c) What is the name of the process associated with the circuit?

d) Name the gases produced at A & B.

e) What will happen if:

(i) Tap water in the setup is replaced by distilled water?

(ii) Terminals of the battery are reversed?

48. What are pathogens? Name two pathogens each that cause diseases in

(i) Plants and (ii) Animal.