BK BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL

MID-TERM EXAMINATION 2023-24

SCIENCE

Class : VIII **Duration: 3 Hrs**
Date : 20/10/23 **Max. Marks: 80**
Admission No: **Roll No. :**

General Instructions:

i. *This question paper consists of 39 questions in 5 sections.*
ii. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
iii. Section A consists of 20 objective type questions carrying 1 mark each.
iv. Section B consists of 6 Very Short questions carrying 02 marks each. Answers to these questions should be in the range of 30 to 50 words.
v. Section C consists of 7 Short Answer type questions carrying 03 marks each. Answers to these questions should be in the range of 50 to 80 words.
vi. Section D consists of 3 Long Answer type questions carrying 05 marks each. Answer to these questions should be in the range of 80 to 120 words.
vii. Section E consists of 3 source-based/case-based units of assessment of 04 marks each with sub-parts.

Section-A

Select and write the most appropriate option out of the four options given for each of the questions 1 - 20. There is no negative mark for incorrect response.

1. Acrylic fibres are also known as _____fibres.

(a) Orlon fibres (b) Terrycot (c) Rayon fibres (d) None of these

2. Terrywool is an example of _____.

(a) Natural fibres (b) Synthetic fibres (c) Blended fibres (d) Semi-synthetic fibres

3. Polyethylene is made up of many _____.

(a) Ethene units (b) Ethane units (c) Ester units (d) Ethyne units

4. _____fibre is known as artificial silk.

(a) Rayon (b) Terylene (c) Polyester (d) Acrylic

5._____ possess properties of both metals and non-metals.

(a) Alloy (b) Metalloids (c) Metal oxides (d) None of these

6. It is also known as brown coal.

(a) Peat (b) Lignite (c) Bituminous (d) Anthracite

7. Which of the following is used in LPG cylinders?

(a) Petroleum gas (b) Naphtha (c) Diesel (d) Petrol

8. Removal of unwanted plants is _____

(a) weeding (b) pruning (c) breeding (d) none of these

9. _____ is modern way of irrigation

(a) sprinkler system (b) rahat (c) dhekli (d) none of these

10. _____ is same type of plants grown on a large scale.

(a) crop (b) vegetation (c) plantation (d) all of these

11. _____ is butterfly shaped located in throat region.

(a) Thyroid gland (b) Pituitary gland (c) Adrenal gland (d) all of these.

12. _____ is 6 inches long, across the abdomen. Divided into 4 parts.

(a) Panceas (b) Pituitary gland (c) Adrenal gland (d) all of these.

13. _____ is on the top of the kidney like a hat.

(a) Panceas (b) Pituitary gland (c) Adrenal gland (d) all of these.

14. For a given force, what will be the effect of an increase in area of contact on pressure?
(a) Pressure will increase (b) Pressure remains the same (c) Pressure will decrease
(d) None of these

15. Which of the following is used to reduce friction?
(a) Ball bearing (b) Set of grooved tyres (c) Spikes in athletic shoes (d) Grinding stone

Question No. 16 to 20 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:
(a) Both A and R are true, and R is the correct explanation of A.
(b) Both A and R are true, and R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

16. **Assertion (A)**: Nylon is a man-made fibre.

Reason (R): It was made by man using natural raw material (from plant or animal).

17. **Assertion (A)**: The speed of sound in steel is large.
Reason(R): molecules in steel are tightly packed

18. **Assertion**: Sperms are produced in testes.
Reasoning: Testosterone hormone is produced in testes and help in production of sperms.

19. **Assertion**: A female child consist of XX chromosome .
Reasoning: If an ovum having X chromosome fuses with a sperm having X chromosome then we get a female child .

20**. Assertion**: Cholera is bacterial disease.
Reasoning: Cholera is a disease caused by contaminated food or water.

Section-B

Question No. 21 to 26 are very short answer questions

21. Classify the following as exhaustible or inexhaustible resources. 2

Coal, petroleum, air, wind, sunlight and ground water

22. Explain advantages of digging the soil.

Or

What is crop? Explain 2

23. Explain reproduction in amoeba with the help of a diagram. 2

24. How many types of bacteria are there? Explain with the help of an example. 2

25. Give reasons:
(a) Large-size suitcases are fitted with wheels. 2
(b) The worn-out tyres should be discarded.

26. Define frequency .Write the SI unit of frequency. 2

Or

Show with the help of activity that sound is produced due to the vibrations of an object.

Section-C

Question No. 27 to 33 are short answer questions

27. (a) What do you understand by a displacement reaction? Give one example. 3

(b) Give the names of any two noble metals.

28. (a) What is the full form of PVC? 3

(b) State four steps that we can take to protect our environment from plastic-related pollution.

OR

(a)What is polymerisation?

(b)With the help of suitable diagram show the types of polymerisation.

29. Differentiate between manure and fertilizer. 3

30. Explain pancreas. 3

31. Explain the working of Manometer with the help of labelled diagram. 3

32. Explain with the help of activity that rolling friction is less than sliding friction. 3

33. (a) Define friction. How does friction change with increase in the weight of an object. 3

(b) Write the factors on which the friction depends upon.

Section-D

Question No. 34 to 36 are long answer questions.

34. (a) Define alloy. Give the name and approximate composition of any two alloys.

(b) Differentiate between metal oxide and non-metal oxide. 5

OR

(a) Complete the following equations.

(i) $CuSO_4 + Fe \rightarrow$

(ii) $Mg + O_2 \rightarrow$

(iii) $S + O_2 \rightarrow$

(b) Explain any four physical properties of metals

35. Name a viral disease and explain its symptoms, mode of transmission, preventive measures taken and vaccine available to prevent it. 5

Or

Explain sexual and asexual reproduction with the help of an example.

36. (a) Explain the functions of different parts of human ear with the help of diagram. 5

(b) Write the range of frequency that can be detected by human ear.

Or

(a) What does SONAR stands for? Explain the working of SONAR with the help of diagram.

(b) Write the frequency range of infrared sound. Give one example.

SECTION - E

Question No. 37 to 39 are case-based/data -based questions with 2 to 3 short sub-parts.

Internal choice is provided in one of these sub-parts.

37. ***Read the passage carefully and answer the following questions.*** 4

In the light of the availability of various resources in nature, natural resources can be broadly classified into two kinds- Inexhaustible and Exhaustible resources. Inexhaustible natural resources are present in unlimited quantities in nature and are not likely to be exhausted by human activities. Examples are sunlight, and air. Exhaustible resources are present in limited quantities in nature. They can be exhausted by human activities. Examples of these resources are forests, wildlife, minerals, coal, petroleum, natural gas etc. some exhaustible natural resources like coal, petroleum and natural gas. These were formed from the dead remains of living organisms (fossils). So, these are all known as fossil fuels.

(i) Exhaustible natural resources are:

(a) Unlimited in quantity (b) Not dependent on nature

(c) Limited in quantity (d) Not exhausted by human activities.

(ii) Identify the fossil fuel/ fuels from the following:

(a) Coal (b) Petroleum (c) Natural gas (d) All of these

(iii) Write any two uses of fossil fuels.

OR

Name the major kinds of fossil fuels.

38.Female reproductive system consists of –

Ovaries

Its function is egg formation. Oestrogen is the hormone which is helpful in the formation of egg.

Fallopian tube

It is also called as oviduct. Its function is to receive matured egg. Fertilization also takes place in fallopian tube.

Uterus

A sac where baby develops. It is also known as mother's womb. It is the place where baby stays for 9 months during pregnancy.

Cervix

It is a cap of vagina.

Vagina

Vagina is the part that receives sperms.

Egg formation occurs in both ovaries since puberty, but only one egg mature each month and that is from alternate ovaries. The egg maturation take few days and once the egg is formed it is released in fallopian tube. This release is called as ovulation.

a. Explain female reproductive system with the help of a diagram. 1 +1 +2

b. Total number of ovary =

c. Total number of fallopian tube =

Or

d. Total number of uterus =

39. To estimate the impact of a force, we calculate the force acting on a unit area. Greater the force acting on a unit area, greater will be its impact. The force acting normally on a unit area (or the force per unit area) of a surface is called pressure. It is calculated by dividing the force by the area over which the force acting.

(a) Write SI unit of pressure. 1 +1 +2

(b) We find it difficult to walk on the sand whereas a camel walks easily on sand. Give reason.

(c) What will be the pressure exerted by a solid if it exerts 700 N of force on an area of 7 m^2?

or

(d) Pressure of 60 Pa acts on a smooth surface of area 2 m^2. Calculate the force applied on the surface.

**********Best of luck**********