

AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS IX EXAMINATION

APRIL/ MAY 2019

General Science Paper I

Time: 45 minutes Marks: 30

INSTRUCTIONS

1. Read each question carefully.
2. Answer the questions on the separate answer sheet provided. DO NOT write your answers on the question paper.
3. There are 100 answer numbers on the answer sheet. Use answer numbers 1 to 30 only.
4. In each question, there are four choices A, B, C, D. Choose ONE. On the answer grid, black out the circle for your choice with a pencil as shown below.

Correct Way				Incorrect Ways					
1	(A)	(B)	●	(D)	1	(A)	(B)	☒	(D)
					2	(A)	(B)	●	(D)
					3	(A)	(B)	✗	(D)
					4	(A)	(B)	☒	(D)

Candidate's Signature

5. If you want to change your answer, ERASE the first answer completely with a rubber, before blacking out a new circle.
6. DO NOT write anything in the answer grid. The computer only records what is in the circles.

1. The branch of physics that analyses the different aspects and characteristics of land is

- A. bio-physics.
- B. geo-physics.
- C. astro-physics.
- D. micro-physics.

2. The amount of minerals in soil can be increased by the use of

- A. fertilizers.
- B. pesticides.
- C. fungicides.
- D. insecticides.

3. Ibn-ul-Haitham was a great scholar of physics.

All of the following are TRUE about his achievements EXCEPT that he

- A. presented three laws of reflection.
- B. wrote a book on optics named *Kitab-ul-Manazir*.
- C. discovered the nature of light as a kind of energy.
- D. carried out most of his research on the formation of images by spherical mirrors.

4. The book '*Al-Qanoon*' is written by

- A. Al-Razi.
- B. Al-Bairuni.
- C. Dr Atta-ur-Rehman.
- D. Dr Abdus Samar Mubarik Mand.

5. In photosynthesis, the gas that is used in making sugar is

- A. oxygen gas.
- B. nitrogen gas.
- C. carbon dioxide gas.
- D. carbon monoxide gas.

6. The hardest allotropic form of carbon present in nature is

- A. graphite.
- B. charcoal.
- C. diamond.
- D. bucky ball.

7. A physical property of pure water is that it

- A. boils at 60°C.
- B. freezes at 0°C.
- C. is an opaque liquid.
- D. shows minimum density at 4°C.

8. Water shows anomalous expansion when temperature changes from

- A. 0°C to -4°C .
- B. 0°C to 37°C .
- C. 4°C to 0°C .
- D. 100°C to 0°C .

9. The central element of haemoglobin is

- A. iron.
- B. sodium.
- C. potassium.
- D. phosphorous.

10. A person experiences the following symptoms.

- Irregular heartbeat
- Tremors and seizures
- Fatigue and muscle weakness

The given symptoms occur due to the deficiency of

- A. sodium.
- B. chloride.
- C. magnesium.
- D. phosphorous.

11. An example of anabolism in living things is

- A. excretion.
- B. digestion.
- C. respiration.
- D. photosynthesis.

12. Zaheer's body is unable to absorb mineral salts and water because of an abnormality in his gut.

The organ which is affected in the given situation is

- A. stomach.
- B. oesophagus.
- C. large intestine.
- D. small intestine.

13. Which of the following is CORRECT about the human digestive organ and its function?

	Digestive Organ	Function
A	Liver	Stores bile juice
B	Stomach	Absorbs nutrients
C	Oesophagus	Produces gastric juice
D	Pancreas	Produces enzymes

14. In the digestive system of human beings, the function of gall bladder is to

- A. store bile juice.
- B. produce bile juice.
- C. digest fats by bile juice.
- D. emulsify proteins by bile juice.

15. The condition which indicates deficiency of platelets in the human body is

- A. excessive bleeding after an injury.
- B. deficiency of oxygen in body cells.
- C. spread of disease causing microbes in the body.
- D. presence of large number of antibodies in blood.

16. Which of the blood groups in the given table is CORRECTLY represented with its antigen and antibodies?

	Blood Group	Antigen on RBCs	Type of antibodies in Plasma
A	A	B	A
B	B	A	B
C	O	None	A and B
D	AB	A	None

17. A nucleotide of deoxyribonucleic acid (DNA) is composed of a nitrogenous base, a

- A. sugar and a sulphate group.
- B. sugar and a phosphate group.
- C. protein and a sulphate group.
- D. protein and a phosphate group.

18. Which of the following CORRECTLY describes antibiotics?

- A. They produce antibodies.
- B. They are produced from viruses.
- C. They can treat fungal infections.
- D. They can trigger the growth of bacteria.

19. When a ball is dropped from a height, its potential energy changes into
- A. heat energy.
 - B. sound energy.
 - C. kinetic energy.
 - D. chemical energy.
20. The fuel used in a nuclear reactor is
- A. carbon.
 - B. uranium.
 - C. bio-mass.
 - D. geo-thermal.
21. An example of a non-renewable energy source is
- A. fossil fuels.
 - B. solar power.
 - C. wind power.
 - D. geo-thermal.
22. The development of animal farm houses in Pakistan may lead to obtaining
- A. solar energy.
 - B. wind energy.
 - C. bio-mass energy.
 - D. geo-thermal energy.
23. The MAJOR contributor to climate change and global warming is the use of
- A. bio-gas.
 - B. solar energy.
 - C. nuclear energy.
 - D. burning of coal.
24. A labour working in a nuclear power plant is exposed to high amount of radiations. The disease he may likely suffer from is
- A. cancer.
 - B. obesity.
 - C. diabetes.
 - D. tuberculosis.
25. The component that is used is to store electrical energy is a
- A. fuse.
 - B. switch.
 - C. resistor.
 - D. capacitor.

26. While making an electric circuit if the resistance is decreased, then

	Voltage	Current
A	increases	decreases
B	increases	increases
C	decreases	decreases
D	decreases	increases

27. Alternating current (A.C) is NOT used in a/ an

- A. torch.
- B. heater.
- C. room cooler.
- D. air conditioner.

28. The electric current that flows only in one direction in an electric circuit is

- A. air current.
- B. direct current.
- C. alternating current.
- D. conventional current.

29. The instrument that is used to measure the amount of current, voltage and resistance in an electric circuit is

- A. ammetre.
- B. voltmeter.
- C. ohmmeter.
- D. multimeter.

30. An electrical device that is connected in parallel with an electrical circuit is a/ an

- A. battery.
- B. resistor.
- C. ammetre.
- D. voltmeter.

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