

GLOBAL TALENT SEARCH EXAMINATION

SCIENCE

Class : VIII

Max Marks : 80

Time : 11:00 to 12:30 noon

Instructions to Candidates :

01. This question paper has 40 objective questions. In addition to this question paper, you are also given an answer-sheet.
02. Read the instructions carefully for each section before attempting it.
03. For each correct answer **2 marks** will be awarded and there is no negative marking.
04. On the answer-sheet, fill up all the entries carefully in the space provided, **ONLY IN BLOCK CAPITAL LETTERS.**
05. Incomplete / incorrect / carelessly filled information may disqualify your candidature.
06. On the answer-sheet, use **PENCIL / BLUE or BLACK BALL PEN.**
07. No extra sheet will be provided for rough-work. Use the space available in the paper for your rough- work.
08. Use of calculator is not permitted.
09. No student is permitted to leave the examination hall before time is complete.
10. Use of unfair means shall invite cancellation of the test.

Roll No.

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Centre No.

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Male / Female _____

Name of the candidate : (In English only, as you would like it to be printed on the certificate).

Signature of the
invigilator

Signature of
the candidate

AMITY INSTITUTE FOR COMPETITIVE EXAMINATIONS

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WEST DELHI : • B-1/632, Main Nazafgarh Road, Janakpuri, New Delhi - 110058. Ph.: 011-25573111/12/13/14.

EAST DELHI : • Amity International School, Mayur Vihar, Phase-I, Ext., Delhi, Ph.: 011-22710588.

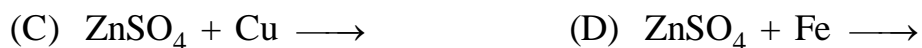
GHAZIABAD CENTRE : • Amity International School, Sector-6, Vasundhara Yojna, Ghaziabad-201012. Ph.: 0120-2881002.

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Each question has four alternatives marked (A), (B), (C) and (D), but only one of these alternatives is the correct answer.

1. In which one of the following, chemical reaction takes place while in the remaining three there is no chemical reaction ?



2. The distance between the earth and the moon is about 4×10^8 m. The velocity of sound in air is 320 ms^{-1} . When a very powerful sound signal is sent from the moon, then it will

(A) reach the earth after about one year

(B) reach the earth after about 6 months

(C) reach the earth after about 347 days

(D) not reach the earth at all

3. Match the statements of column I with those in column II and tick-mark(\checkmark) the correct matching.

Column I

Column II

(a) Blank-looking structures in cytoplasm

(i) chromosomes

(b) The entire content of the living cells

(ii) prokaryotes

(c) Thread-like structures in the nucleus of a cell

(iii) vacuoles

(d) Organisms having cells in which nuclear material is without nuclear membrane

(iv) gene

(e) Unit of inheritance in living organisms

(v) protoplasm

(A) (a) - iii, (b) - v, (c) - ii, (d) - i, (e) - iv

(B) (a) - v, (b) - iii, (c) - i, (d) - ii, (e) - iv

(C) (a) - iii, (b) - v, (c) - iv, (d) - ii, (e) - i

(D) (a) - iii, (b) - v, (c) - i, (d) - ii, (e) - iv

4. The world's first oil well was drilled in Pennsylvania, USA, in 1859. Eight years later, oil was struck in India also. Which of the following two States of India are oil-producing (petroleum) States ?

- (A) Assam and Gujarat (B) Maharashtra and Tamil Nadu
(C) Gujarat and Madhya Pradesh (D) Assam and Madhya Pradesh

5. Many elements readily react with oxygen. Some elements start burning, even when exposed to air containing oxygen. Such elements cannot be kept preserved in free or exposed form. Which one of the following elements is preserved under water ?

- (A) Sodium (B) Sulphur
(C) Phosphorus (D) Potassium

6. Match the statements of column I with the forces in column II and tick-mark(✓) the correct matching.

Column I

Column II

- | | |
|--|------------------------|
| (a) Falling of a mango from the tree to the ground | (i) contact force |
| (b) A horse pulling a <i>tonga</i> | (ii) frictional force |
| (c) Slowing down of a ball on the ground | (iii) electrical force |
| (d) Muscular forces | (iv) non-contact force |
| (e) Sticking of balloon against wall, after rubbing it against clothes | (v) muscular force |

(A) (a) - iv, (b) - i, (c) - ii, (d) - v, (e) - iii

(B) (a) - iv, (b) - v, (c) - ii, (d) - i, (e) - iii

(C) (a) - ii, (b) - v, (c) - iv, (d) - i, (e) - iii

(D) (a) - iv, (b) - v, (c) - ii, (d) - iii, (e) - i

7. Consider the following statements about a man-made fabric

- (i) it appears like silk
- (ii) it is lustrous and easy to wash
- (iii) its thread is actually stronger than a steel wire

This man-made fabric is

- (A) nylon
- (B) rayon
- (C) polyester
- (D) terylene

8. Which one of the following is *wrong* about frictional force ?

- (A) Friction is both : a necessity and an evil
- (B) It acts in a direction opposite to the direction of motion of the body
- (C) When we apply a force on a body, the frictional force will act on the body only when the body starts moving, because it opposes motion
- (D) It is a contact force

9. Match the non-metals given in column I with their characteristic properties given in column II and tick-mark(\surd) the correct relation.

Column I

Column II

- | | |
|--------------|---|
| (a) Chlorine | (i) only non-metal liquid at room temperature |
| (b) Bromine | (ii) most electronegative and reactive of all elements |
| (c) Iodine | (iii) used in water purification |
| (d) Fluorine | (iv) used in the purple coloured solution which is applied on wounds as an antiseptic |

- (A) (a) - iii, (b) - ii, (c) - iv, (d) - i
- (B) (a) - iii, (b) - iv, (c) - i, (d) - ii
- (C) (a) - iii, (b) - i, (c) - iv, (d) - ii
- (D) (a) - iii, (b) - i, (c) - ii, (d) - iv

10. Tick-mark(✓) the *wrong* statement from the following.

- (A) Ultrasonics have frequency greater than 20,000 Hz
- (B) Sound from a body is not heard if frequency of vibration of the body is less than 20 per second
- (C) Sound of larger frequency will travel faster
- (D) The nature of sound from a body will change, if either the amplitude of vibration of the body or its frequency of vibration changes

11. Which of the following statements is *wrong* ?

- (A) Earthquakes cannot be predicted
- (B) Tsunami is caused by earthquake
- (C) Earthquake can occur at any place on the surface of the earth
- (D) Intensity of earthquake is measured on Richter Scale

12. Match properly the statements given in column I with those given in column II and tick-mark(✓) the correct matching.

| <i>Column I</i> | <i>Column II</i> |
|---|------------------------------|
| (a) Substances having nutrients for the healthy growth of plants | (i) manure |
| (b) Decomposed plants and animal wastes | (ii) humus |
| (c) Chemical substances, rich in particular nutrients | (iii) manure and fertilisers |
| (d) The rotting dead matter (leaves and animal remains) in the soil | (iv) fertilisers |

(A) (a) - iii, (b) - iv, (c) - i, (d) - ii

(B) (a) - iii, (b) - i, (c) - iv, (d) - ii

(C) (a) - ii, (b) - i, (c) - iv, (d) - iii

(D) (a) - iii, (b) - ii, (c) - iv, (d) - i

16. Nitrogen gas is extensively used in food packaging to keep food fresh. This is because nitrogen gas

- (A) acts as germicide and does not allow any bacteria to grow
- (B) provides an unreactive environment in which bacteria cannot grow
- (C) is a bad conductor of heat and so does not allow heat exchange between surroundings and packaged food
- (D) is abundantly available in nature and hence can be collected and used easily

17. Migratory birds fly to far away places every year during particular time

- (A) for excursion, like human beings
- (B) only to lay eggs in safer areas
- (C) because of shortage of food in their area
- (D) because of climatic changes, as their natural habitat becomes very cold and inhospitable

18. Match the fuels given in column I with their corresponding uses given in column II and tick-mark(✓) the correct matching.

Column I

Column II

- | | |
|--------------|---------------------------------|
| (a) Petrol | (i) cooking in modern villages |
| (b) Diesel | (ii) cooking in big cities |
| (c) LPG | (iii) trucks and heavy vehicles |
| (d) Biogas | (iv) lighting lanterns |
| (e) Kerosene | (v) aeroplanes and helicopters |

(A) (a) - v, (b) - iii, (c) - ii, (d) - iv, (e) - i

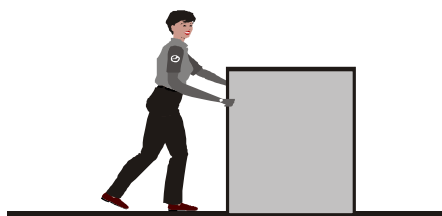
(B) (a) - iii, (b) - v, (c) - ii, (d) - i, (e) - iv

(C) (a) - v, (b) - iii, (c) - ii, (d) - i, (e) - iv

(D) (a) - v, (b) - iii, (c) - i, (d) - ii, (e) - iv

19. A heavy box, placed on a horizontal surface, is pushed by a person but he is not able to move the box in the direction of applied force. How many forces are acting on the box in this condition ?

- (A) Four force
- (B) Three forces
- (C) Two forces
- (D) One forces



20. These days, the head of the 'safety match' contains only antimony trisulphide and potassium chlorate. The rubbing surface has powdered glass and a little red phosphorus. Which one of these materials is responsible for raising the temperature to ignition ?

- (A) Antimony trisulphide
- (B) Potassium chlorate
- (C) Powdered glass
- (D) Red phosphorus

21. Match the statements of column I and column II and tick-mark(✓) the correct matching.

Column I

Column II

- | | |
|-----------------------|-------------------------|
| (a) Lubricating oil | (i) fossil fuel |
| (b) Petroleum product | (ii) non-polluting fuel |
| (c) CNG | (iii) petroleum |
| (d) Petroleum | (iv) paints |
| (e) Bitumen | (v) diesel |

- (A) (a) - iii, (b) - iv, (c) - i, (d) - ii, (e) - v
- (B) (a) - iii, (b) - v, (c) - ii, (d) - i, (e) - iv
- (C) (a) - iii, (b) - iv, (c) - ii, (d) - v, (e) - i
- (D) (a) - iii, (b) - v, (c) - iv, (d) - i, (e) - ii

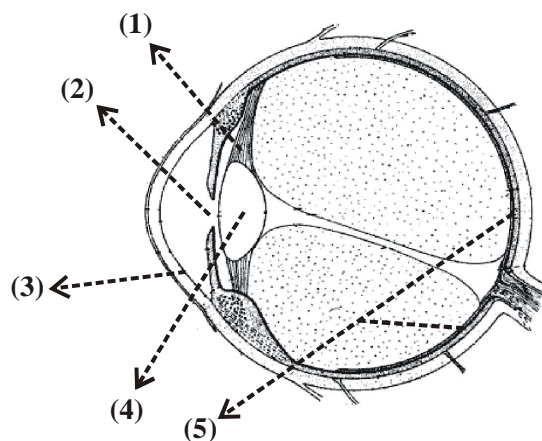
22. Tick-mark(✓) the *wrong* statement from the following ?

- (A) Antibiotics play an important role in curing viral diseases
- (B) Food poisoning may be caused by consuming food items on which toxic substances have been produced by microorganisms
- (C) Disease-causing microorganisms are called pathogens
- (D) Female *Aedes* mosquito acts as carrier of dengue virus

23. Vaccination involves administration of vaccines, which contain dead or weakened microbes, into human body in order to stimulate the immune system against the microbes, thereby preventing disease. The healthy immune system is able to recognise the invading bacteria and viruses, and produce substances (antibodies) to destroy or disable them. The antibodies remain in the body and thus we are protected from disease-causing microbes. Which one of the following diseases is *not* prevented by vaccination ?

- (A) Typhoid
- (B) Malaria
- (C) Chicken Pox
- (D) Tuberculosis

24. Simplified view of the human eye ball is shown along side. Some parts of the eye have been marked as 1, 2, 3, 4 and 5. Name these parts correctly.



| | <i>Retina</i> | <i>Ciliary muscle</i> | <i>Cornea</i> | <i>Pupil</i> | <i>Lens</i> |
|-----|---------------|-----------------------|---------------|--------------|-------------|
| (A) | 5 | 2 | 3 | 1 | 4 |
| (B) | 5 | 1 | 2 | 4 | 3 |
| (C) | 5 | 3 | 1 | 2 | 4 |
| (D) | 5 | 1 | 3 | 2 | 4 |

25. Those species of plants and animals which are found exclusively in a particular area, are called

- (A) ecosystem (B) biosphere reserve
(C) flora and fauna (D) endemic species

26. Growth hormones are secreted by

- (A) testes and ovaries (B) pituitary glands
(C) pancreatic glands (D) all the above glands

27. Tick-mark(✓) the *incorrect* statement from the following.

- (A) The property of metal by which it can be drawn into wires is called malleability
(B) Copper does not react with dilute hydrochloric acid, even on heating
(C) In general, metallic oxides are basic in nature
(D) Generally, non-metals do not react with water, though these may be very reactive in air

28. Match the given statements in column I with the synthetic fibres/products given in column II and tick-mark(✓) the correct matching.

Column I

Column II

- | | |
|-------------------------------------|------------------------|
| (a) More durable and affordable | (i) terylene |
| (b) Chemical treatment of wood pulp | (ii) nylon |
| (c) Coal, water and air | (iii) synthetic fibres |
| (d) Polyester | (iv) plastics |
| (e) Polythene | (v) rayon |

(A) (a) - iii, (b) - iv, (c) - v, (d) - i, (e) - ii

(B) (a) - iii, (b) - v, (c) - ii, (d) - i, (e) - iv

(C) (a) - iii, (b) - v, (c) - ii, (d) - iv, (e) - i

(D) (a) - iii, (b) - v, (c) - i, (d) - ii, (e) - iv

29. The substance that undergoes combustion is said to be combustible. It is also called fuel. The fuel may be solid, liquid or gas. Which one of the following gases is combustible ?

(A) Oxygen

(B) Hydrogen

(C) Nitrogen

(D) Carbon dioxide

30. Tick-mark(✓) the *wrong* statement from the following.

(A) A white blood cell (WBC) in human blood is a single cell which can change its shape

(B) A single-celled organism performs all the necessary functions that a multicellular organism performs

(C) The largest cell is the egg of a hen

(D) A cell wall is absent in animal cells

31. Match the statements given in Column I with those given in column II and tick-mark (✓) the correct matching.

Column I

Column II

(a) Propagation of sound

(i) decibel

(b) Amplitude of vibrating body

(ii) pitch

(c) Frequency of sound

(iii) hertz

(d) Loudness of sound

(iv) medium

(e) Frequency of vibration

(v) loudness

(A) (a) - iv, (b) - v, (c) - ii, (d) - iii, (e) - i

(B) (a) - iv, (b) - v, (c) - iii, (d) - i, (e) - ii

(C) (a) - iv, (b) - v, (c) - i, (d) - ii, (e) - iii

(D) (a) - iv, (b) - v, (c) - ii, (d) - i, (e) - iii

32. In case of a plane mirror, if the angle between the reflected ray and the incident ray is 80° , then the angle between
- (A) the plane of mirror and the reflected ray is 40°
 - (B) the plane of mirror and the incident ray is 40°
 - (C) the normal and the reflected ray is 40°
 - (D) the normal and the plane of the mirror is 40°
33. Which one of the following fuels has maximum calorific value ?
- (A) Hydrogen
 - (B) Biogas
 - (C) LPG
 - (D) Petrol
34. Cultivation of same plant on large scale is called crop. The climate conditions like temperature, humidity and rainfall vary from one region to another. Accordingly, there is a rich variety of crops grown in our country. The crops of soyabean and groundnuts are
- (A) Kharif crops
 - (B) cash crops
 - (C) cereals
 - (D) Rabi crops
35. Which one of the following is the proper sequence of development of human baby ?
- (A) Fertilisation \rightarrow embryo \rightarrow zygote \rightarrow foetus \rightarrow baby
 - (B) Fertilisation \rightarrow embryo \rightarrow foetus \rightarrow zygote \rightarrow baby
 - (C) Fertilisation \rightarrow zygote \rightarrow embryo \rightarrow foetus \rightarrow baby
 - (D) Fertilisation \rightarrow zygote \rightarrow foetus \rightarrow embryo \rightarrow baby
36. Nine planets in order of increasing distance from the sun are
- (A) Mercury, Venus, Earth, Mars, Saturn, Jupiter, Uranus, Neptune, Pluto
 - (B) Mercury, Venus, Earth, Mars, Jupiter, Uranus, Saturn, Neptune, Pluto
 - (C) Mercury, Venus, Earth, Jupiter, Mars, Saturn, Uranus, Neptune, Pluto
 - (D) Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto

37. Tick-mark (\checkmark) the *wrong* statement from the following :
- (A) We never observe back side of the moon from our earth. This is because the moon does not rotate about its axis
 - (B) Stars, like our sun, appear to move from east to west
 - (C) Alpha Centauri is the nearest star from our sun. It is at a distance of about 4.3 light year from the sun
 - (D) Sirius is the visibly brightest star in the sky and is located close to *Orion* constellation
38. When you are travelling in a car and suddenly it starts raining and there are also repeated events of lightning, then it is safer to
- (A) remain inside the car and open its doors or windows
 - (B) remain inside the car with windows and door shut
 - (C) leave the car and take shelter near a tall tree
 - (D) leave the car and travel to a nearby place, using an umbrella
39. Tick-mark(\checkmark) the *wrong* statement from the following.
- (A) The first cloned mammal was a sheep, named Dolly
 - (B) Budding and binary fission are types of asexual reproduction
 - (C) Test-tube babies are developed in specially designed test-tube, and hence the name
 - (D) Lion is a viviparous animal
40. In which of the following cases, pressure is more than in the other cases ?
- (A) A weight of 4 kg placed on surface area $40 \text{ cm} \times 40 \text{ cm}$
 - (B) A weight of 2 kg placed on surface area $20 \text{ cm} \times 20 \text{ cm}$
 - (C) A weight of 1 kg placed on surface area $10 \text{ cm} \times 10 \text{ cm}$
 - (D) The pressure is same in all the three cases

ANSWERS CLASS VIII (SCIENCE)

| | | | | | | | | | |
|----|---|----|---|----|---|----|---|----|---|
| 1 | B | 2 | D | 3 | D | 4 | A | 5 | C |
| 6 | B | 7 | A | 8 | C | 9 | C | 10 | C |
| 11 | C | 12 | B | 13 | B | 14 | C | 15 | C |
| 16 | B | 17 | D | 18 | C | 19 | A | 20 | C |
| 21 | B | 22 | A | 23 | B | 24 | D | 25 | D |
| 26 | B | 27 | A | 28 | B | 29 | B | 30 | C |
| 31 | D | 32 | C | 33 | A | 34 | A | 35 | C |
| 36 | D | 37 | A | 38 | B | 39 | C | 40 | C |