IIT ASHRAM BRINGS...

CLASS 5 PHASE-II

KH⦿J (2021)
A Hunt for young Scientists..!

SAMPLE PAPER

Time : 1 Hours   **Maximum Marks : 160**

IMPORTANT INSTRUCTIONS

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

A. GENERAL :

1. This booklet consists of 40 questions.
2. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, and electronic gadgets in any form are not allowed to be carried inside the examination hall.
3. The answer sheet, a machine–readable Optical Mark Recognition (OMR), is provided separately.
4. Do not tamper with / mutilate the OMR or the Booklet.
5. Write Name and Address in capital letters on OMR sheet.
6. Submit the OMR Sheet back to Invigilator after examination before leaving the examination hall.
7. Previous year or Term exam's percentage | grade | Marks scored in Maths and Science must be written at the back of OMR Sheet

B. QUESTION PAPER FORMAT:

7. The question paper consists of **4 Parts.**

   Part-I :- Mental Ability (8 Questions)   **Part-II :- Mathematics (8 Questions)**

   Part-III :- Physics/ Chemistry (16 Questions)   **Part-IV:- Biology (8 Questions)**

C. Marking Scheme :

8. For each question in **Part-I , II, III & IV** you will be **awarded 4 marks** if you have darkened only the bubble corresponding to the correct answer and zero mark if no bubble is darkened. In all other cases where the answer marked is not correct, **minus one (–1) mark** will be awarded.

IIT ASHRAM

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KHOJ SAMPLE PAPER

PART – I : MENTAL ABILITY

Directions from 1-2:

Arrange each of the five words in the questions below in a meaningful sequences.

1. 1. Bungalow
   2. Flat
   3. Cottage
   4. House
   5. Palace

   (A) 3,2,1,4,5   (B) 3,2,4,1,5   (C) 3,2,1,5,4   (D) 5,4,1,2,3

2. 1. Key
   2. Door
   3. Lock
   4. Room
   5. Switchon

   (A) 5,1,2,4,3   (B) 4,2,1,5,3   (C) 1,3,2,4,5   (D) 1,2,3,5,4

3. In the following question the letters of words have been jumbled up.

   Identify the word in the options for the given clues.

   What the Earth is

   (A) ODWO   (B) RIFOPT   (C) TENLAP   (D) ASBW

4. In a certain code ZEBRA is written as CHEUD and HORSE is written as KRUVH

   Identify the code for SHARE

   (A) VKDUH   (B) KCHRE   (C) UEUVD   (D) EKRUV

5. In a certain code PENCIL Is written as BDFKJS.

   Identify the word for BJFD

   (A) NICE   (B) PINE   (C) LINE   (D) CLIP

6. Find the missing term :12, 15, 18, 21, ?

   (a) 26   (b) 27   (c) 23   (d) 24

7. Find the missing term :

   A, C, ?, G, I

   (a) D   (b) E   (c) F   (d) H

8. Arrange the given words in the order they occur in dictionary.

   1.SIGN   2.SOLID   3. SCENE   4. SIMPLE

   (a) 3, 1, 2, 4   (b) 3, 1, 4, 2   (c) 3, 4, 1, 2   (d) 3, 4, 2, 1
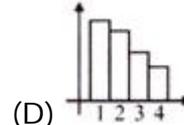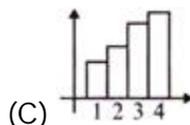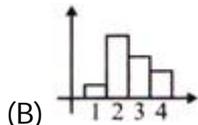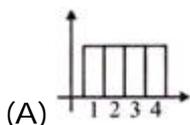
PART – II : MATHEMATICS

1. What is the sum of first two prime numbers?

   (A) 2   (B) 5   (C) 3   (D) 4

2. What is the difference between the largest three digit number and the smallest four digit number?

   (A) 1   (B) 2   (C) 3   (D) 4

3. What is the value of $15 \times 40 \times 3 \times 0$?

   (A) 1   (B) 2   (C) 3   (D) 0

4. What will be the quotient if we divide 360 by 4?

   (A) 70   (B) 80   (C) 90   (D) 95

5. What is the H.C.F. of co-prime numbers?

   (A) 1   (B) 2   (C) 3   (D) 4

6. How many half hours make a day?

   (A) 38   (B) 48   (C) 36   (D) 24

7. Identify the smallest 7-digit number

   (A) 10,00,000   (B) 1 + greatest 6 digit number

   (C) Both (A) and (B)   (D) Neither (A) nor (B)

8. A class of 30 students recently wrote a test. If 20 students scored 80, 8 students scored 90 and 2 students scored 100, find the class average on this test.

   (A) 90   (B) 84   (C) 82   (D) 86

PART – III : PHYSICS/ CHEMISTRY

1. The size of the moon change daily. Then which of the following bar diagram gives the correct change in size of the moon. (1 - New moon, 2 - Crescent, 3 - Half moon, 4 - Full moon)

(A) (B) (C) (D)

2. Gravity of moon in comparison to earth is

(A) Double   (B) Half   (C) quarter   (D) one sixth

3. In which phase of moon, a solar eclipse occurs.

(A) New moon   (B) Full moon   (C) Crescent   (D) Quarter

4. Band of seven colors obtained through dispersion is called:

(A) Reflection   (B) Refraction   (C) Spectrum   (D) Transparency

5. Bottle opener is an example of

(A) An inclined plane   (B) First class lever

(C) 2nd class lever   (D) 3rd class lever

6. Shadows are long during:

(A) Early morning   (B) Evening

(C) Both [a] and [b]   (D) Afternoon

7. Which branch of science can tell us about dispersion of light?

(A) Thermodynamics   (B) Optics

(C) Acoustics   (D) Mechanics

8. Which part of eye acts like a screen, on which image is formed?

(A) Cornea   (B) Iris   (C) Retina   (D) Lens

9.   Which among the following is an example of a pure substance?

(a)   Sea water   (b)   Soil   (c)   Air   (d)   Sugar

10.   The process of changing water into ice is called

(a)   Sublimation   (b)   Evaporation   (c)   Freezing   (d)   Precipitation

11.   When we dissolve sugar in water, the water level does not rise up because

(a)   Sugar does not dissolve in water

(b)   Sugar does not need space to occupy

(c)   Sugar is invisible

(d)   Sugar particles take up the space between the water particles.

12.   Melting of ice is:

(a)   Physical change   (b)   Chemical change

(c)   Both (a) and (b)   (d)   None of the above

13.   Which of the following is soft material?

(a)   Iron   (b)   Sponge   (c)   Wood   (d) None of these

14.   Select odd one out?

(a)   Aluminium   (b)   Iron   (c)   Silver   (d) Sand

15.   The process of setting down of particles of a solid in a liquid is:

(a)   Decantation   (b)   Sublimation   (c)   Sedimentation   (d)   Filtration

16.   Which gas helps in burning?

(a)   Nitrogen   (b)   Oxygen   (c)   Carbon dioxide   (d) Argon

PART – IV : BIOLOGY

1. Silt:

    (A) is a type of soil particles   (B) occurs as deposit in river beds

    (C) Both the above are correct   (D) None of these

2. Which of the following parts of the human body has involuntary muscles?

    (A) Legs   (B) Arms   (C) Neck   (D) Intestine

3. Strawberries reproduce vegetative by sending out runners. Runners of strawberry plants are actually of which one of the following parts of the plants?

    (A) Root   (B) Stem   (C) Leaves   (D) Flower

4. Pick the odd one out.

    (A) Ducks   (B) Crocodiles   (C) Seals   (D) Fish

5. How many biomes are there?

    (A) Five   (B) Four   (C) Three   (D) Six

6. _____ in soil is the fertile component.

    (A) Gravel   (B) Humus   (C) Moisture   (D) Air

7. A particular community is exposed excessive noise pollution, what will be result after some times to members of the community

    (A) Headache   (B) Deafness   (C) Lack of sleep   (D) All of these

8. Which of following diseases spreads through contaminated food and water?

    (A) Malaria   (B) Cholera   (C) Dengue   (D) Filaria