

# ADITYA TALENT SCHOOL

X CLASS

DAILY EXAM

Dt : 20-04-2020

## GENERAL SCIENCE - 1 (25 MARKS)

### SECTION - I

$\frac{1}{2}$  mark questions.

$20 \times \frac{1}{2} = 10$

- Define dispersion of light.
- Match the following
  - Violet a) Maximum deviation
  - Red b) Minimum deviation
- A : The focal length of eye lens has fixed value.  
B : Light entering into eye may change by size of pupil.
- The focal length of lens is 20 cm. Its power is \_\_\_\_\_
- Which lens is used for correcting Myopia.
- The maximum visual angle for a person is
  - $120^\circ$
  - $60^\circ$
  - $45^\circ$
  - $90^\circ$
- Which process is involved in the formation of a rainbow?
  - Refraction
  - Dispersion
  - Total internal reflection
  - Reflection
- The far point of a person is 100 cm. The power of lens used to correct the defect is \_\_\_\_\_
- Which of the following is constant for objects at different positions?
  - Object distance
  - Focal length of eye lens
  - Image distance
  - All the above
- Match the following. In prism
  - Velocity of Violet
  - Velocity of Red
  - Maximum
  - Minimum
  - Same
- Identify the odd one regarding the type of hybridisation
  - $CH_4$
  - $H_2O$
  - $NH_3$
  - $BeCl_2$
- Statement I : " $P_i$ " bond has independent existence.  
Statement II : " $P_i$ " bond is formed by the lateral overlap of orbitals.  
Now, choose the correct option.
  - I and II both are correct
  - I is correct and II is incorrect
  - I is incorrect and II is correct
  - I and II both are incorrect
- Among the following, which is covalent?
  - $CH_4$
  - $CaO$
  - $KCl$
  - $Na_2S$

14. Match the following
- |                 |     |             |
|-----------------|-----|-------------|
| i) Double bond  | [ ] | p) $C_2H_2$ |
| ii) Triple bond | [ ] | q) $Cl_2$   |
|                 |     | r) $C_2H_4$ |
15. How is a cation formed?
16. The bond angle in  $BF_3$  molecule is.....
17. What is the shape of Ammonia molecule?
18. Assertion (A) :  $H_2O$  molecule gets 'V' shape.  
Reason (R) : In  $H_2O$ , the central atom 'O' has one lone pair of electrons.  
Now, choose the correct option.
- 'A' and 'R' both are correct and 'R' is true correct explanation of 'A'.
  - 'A' and 'R' both are correct, but 'R' is not the correct explanation of 'A'.
  - 'A' is correct and 'R' is incorrect.
  - 'A' is incorrect and 'R' is correct.
19. In  $NaCl$  crystal, the coordination member of  $Na^+$  is \_\_\_\_ and that of  $Cl^-$  is \_\_\_\_\_
20. Among  $NaCl, H_2, Cl_2$  and  $HCl$ , which is having polar covalent nature?

### SECTION - II

#### 1 mark questions.

**15 x 1 = 15**

- Define accommodation of eye.
- Define scattering of light.
- What are the maximum and minimum focal length of eye lens.
- Draw i.d curve for a light passing through prism.
- Define hypermetropia.
- Why is the sky appears white at noon
- Why is the red colour selected for danger signal lights
- How is a sigma bond formed?
- What is a chemical bond?
- What is ionic bond?
- Why  $NaCl$  is insoluble in Benzene?
- Define Bond length.
- What is the bond angle in the following molecules?  
a)  $CH_4$       b)  $NH_3$       and      c)  $H_2O$
- What is Hybridisation?
- Represent the following atoms using Lewis notations  
a) Sodium and      b) Argon

## ENGLISH - 2 (25 MARKS)

### I. Read the following passage.

There is one thing that is yours alone, which no one else can have, and that is the pattern of your fingerprints. You leave your fingerprint behind when you touch anything. The Chinese were the first people to realise this, so they used a thumb-print instead of a signature on very important documents. A signature can be copied but thumb print can't be. In the late 19<sup>th</sup> century the real importance of fingerprints became known. A man called Francis Galton began to study the ridges of the finger tips. He found that no two people had the same pattern of ridges. He also learnt that the pattern does not change as a person grows older. The police saw at once how finger prints could help them. They began to keep records of the finger prints of people who were known to be criminal. When the police want to find out whether a suspect has committed other crimes before, they take his fingerprints and compare them with those they have. With so many prints on record, it would seem very hard to check but an expert can usually find out in a few minutes. The prints on record are divided into different groups: those with patterns that slope to the right, those that slope to the left, those that have rings, and so on. Some have more ridges than others and some have lines that cut across them. Once the expert knows which group the fingerprints belong to, all he has to do is to look up only that section and see whether the same pattern is already there.

**Now arrange the following sentences in a meaningful order.**

**5x1=5 m**

1. As result of his discovery the police began to keep records of criminals.
2. Sir Francis Galton found that no two persons had the same fingerprints.
3. When we touch anything we leave behind our fingerprints.
4. The Chinese found this and used a thumbprint instead of a signature because it cannot be copied.
5. To find out whether a suspect has committed other crimes before, the police compare his fingerprints with those they already have.

### II. Read the paragraph and write the synonyms of the underlined words choosing from the words given in the box.

**4x1/4=2m**

Fame	Support	Described
Critics	Prosperity	Allegations

Roberge does not endorse (a) the accusation (b) of Ray's detractors (c) that the master director made his reputation selling India's poverty to the west." What struck me most was not the material poverty depicted (d) in the films, but the enormous spiritual poverty of some rich people is much more deplorable than material poverty " he said.

### III. Read the paragraph and match the words under 'A' with their antonyms under 'B'.

In these three films Ray was at his most personal (a) and when some critics saw the films as didactic and verbose (b) I felt deeply (c) hurt. For, in these last films, Satyajit was directly (d) talking to us.

**4x1/2=2m**

- |             |               |
|-------------|---------------|
| <b>A.</b>   | <b>B.</b>     |
| a) personal | 1. Indirectly |
| b) verbose  | 2. Lightly    |
| c) deeply   | 3. Private    |
| d) directly | 4. Straightly |
|             | 5. Succinct   |
|             | 6. Impersonal |

**IV. Fill in the blanks with the right form of the words given in brackets. 4x1/2=2m**  
 One important fallout of this (a)\_\_\_ (friendship/ friendly) was the\_\_\_(b). (establish/ establishment) of Chitrabani, a communication and film institute, the first of its kind in West Bengal, which Roberge\_\_\_(c) (found/ founded) in 1970 and to which Ray, as a token of friendship, lent his name as co-founder. Ray was in the first\_\_\_ (d) (governing/governed) body and after a few terms readily agreed to be the institutes adviser.

**V. Complete the spelling of the words with ai, oo, ie, ee, ei, ea. 2x1/2=1m**  
 There began his long standing love (a) aff\_\_\_r with Bengali cinema and culture, which led to path-breaking work in those (b) f\_\_\_lds.

**VI. Complete the words with correct suffixes given in brackets 2x1/2=1m**  
 He found the world of Apu so fascina----- (ting/teng) that he saw all three films in one sitting. Gaston Roberge was acquaint---- (ed/ad) with the works of Satyajit Ray

**VII. Find the wrongly spelt word and write its correct spelling 2x1=2m**  
 1. colosus dictum stature aloof  
 2. humour unassuming disceret reality

**VIII. Read the following dictionary entry of the word 'Lethargy' given below. 2x1=2m**

**leth-argy** /'leθədʒi; NAmE 'leθərdʒi/ *noun* [U] the state of not having any energy or enthusiasm for doing things **SYN** *listlessness, inertia* ▶ **leth.ar.gic** /lə'θɑ:dʒɪk; NAmE -'θɑ:rdʒ-/ *adj.*: *The weather made her lethargic.*

**Now answer the following questions using the information above.**

1. What is the parts of speech of the word 'lethargy' ?
2. What is the definition of the word 'lethargy'?

**IX. Arrange the following words under the correct headings. 8x1/4=2m**

diameter, speculation, dictionary, introvert  
 Insecticide, civilization, regress, bimorph

**Words with Prefixes**

- 1) .....
- 2) .....
- 3) .....
- 4) .....

**Words with Suffixes**

- 1) .....
- 2) .....
- 3) .....
- 4) .....

**X. Use the following expressions in sentences of your own. 4x1=4 m**

- A) Phrasal verbs : freak out
- B) Idiomatic expression : muster up confidence
- C) Binomial expression : near and dear
- D) Foreign expression : lingua franca

**XI. Match the following one-word substitutes in Part - A with their meanings in Part - B**

- |              |   |
|--------------|---|
| <b>A</b>     | <b>B</b> <span style="float: right;">4 x 1/2 = 2 M</span>             |
| 1. Geologist | A) a set of three film with same characters.                          |
| 2. Trilogy   | B) a scientist who studies physics.                                   |
| 3. Didactic  | C) a person who knows many languages.                                 |
| 4. Dictum    | D) a statement that is believed to be true and followed               |
|              | E) something designed to teach people some moral.                     |
|              | F) a person who studies the earth, the origin of the history of rocks |