ADITYA TALENT SCHOOL

X CLASS   **DAILY EXAM**   **Dt : 15-04-2020**

GENERAL SCIENCE - 1 (25 MARKS)

SECTION - I

$^1/_2$ mark questions.   **20 x $^1/_2$ = 10**

1. Write Snell's law formula.

2. What is the critical angles of diamond?

3. Identify the applications of total internal reflection among the following.

    (i) Brilliance of diamonds.   (ii) Working of principle of optical fibers

    (iii) twinkling of stars   (iv) Colour of sky

    a) Both (i) and (ii)   b) Both (ii) and (iii) c) Both (iii) and (iv)   d) Both (iv) and (i)

4. The light which bends most and least were

    a) Red and Blue   b) Blue and Red   c) Violet and Red   d) Red and Violet

5. Write the lens makers formula?

6. Which of the following materials cannot be used to make a lens?

    a) Clay   b) Glass   c) Metal   d) Plastic
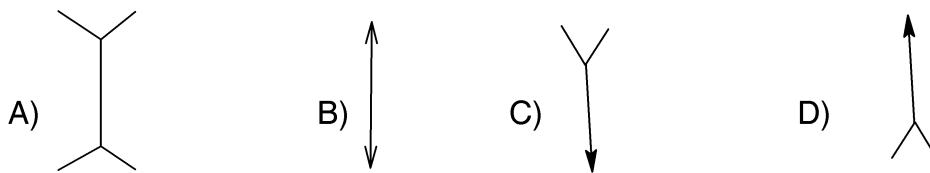
7. Match the following.

Column-A	Column-B
p) Refractive index of glass	a) $\dfrac{9}{8}$
q) Refractive of water w.r.t. glass	b) $\dfrac{8}{9}$
	c) $\dfrac{3}{2}$

8. Assertion (A): Formation of mirages in hot deserts is a phenomena of total internal reflection.

    Reason (R) :   Air close to the land is hotter than the air far from the land in hot desert.

    a) Assertion is correct Reason wrong

    b) Assertion is wrong Reason is correct

    c) Assertion and Reason are correct and Reason is not explaining Assertion

    d) Assertion and Reason correct and Reason is explaining of Assertion.

9. The air bubble in water behave like a

    a) diverging lens   b) converging lens   c) mirrors   d) None of the above

10. For drawing a ray diagram, we represent concave lens with a symbol.

A)   B)   C)   D)

11. How many periods and groups are present in the long form of periodic table?

12. Three elements A,B and C form a Dobereiner triad. The atomic weights of A and C are 35 and 127 respectively. Find the atomic weight of B.

13. What is the correct order of the size of the iodine species among I, I^+ and I^-?

14. What would be the predicted formula of EKa-Aluminium oxide by Mendeleev?

15. The atom having the valence shell electronic configuration $4s^2 4p^2$ would be in ....group and ....period

16. Statement -I : Group -16 elements are called chalcogens

    Statement -II : Elements of Group -17 are salt producers

    1) I and II are correct   2) I and II are incorrect

    3) I is correct and II is incorrect   4) I is incorrect and II is correct

17. Elements with atomic numbers 10, 18, 36, 54 are collectively known as...............

18. Given two examples of metalloids.

19. The atomic numbers of lanthanoids range from ....to ....

20. Matching

Column- I (Maximum number of elements in the period)	Column-II (Period number)
1) 2	P) 1
2) 8	Q) 2
3) 18	R) 3
4) 32	S) 4
	T) 6

A) 1-P, 2-Q, 3-T, 4-S   B) 1-P, 2-S, 3-Q, 4-R

C) 1-P, 2-S, 3-Q, 4-R   D) 1-P, 2-Q, 3-S, 4-T

<center>SECTION - II</center>

1 mark questions.   **15 x 1 = 15**

21. Find the critical angle for a material of refractive $\sqrt{2}$?

22. What is optical denser medium?

23. When is angle of incidence is equal to the angle of refraction?

24. Light travels from crown glass $\left(n_g = 1.5\right)$ into air $\left(n_{an} = 1\right)$. The angle of refraction in air is $60°$. What is the angle of incidence in glass?

25. A convex lens of focal length 25 cm is made with glass $\left(\mu = 1.5\right)$. Find the image distance, when object is placed at 12.5 cm from optic centre.

26. Give two uses of a convex lens?

27. Draw an image formation of convex lens, when the object is placed in between optic center and focus.

28. Why does atomic size increase in a group ?

29. What is modern periodic law?

30. What is screening effect (or) shielding effect?

31. Define electron affinity.

32. Although beryllium size is bigger than boron, but beryllium possesses higher ionisation energy than boron. Why?

33. What are inner transition elements?

34. What is the decreasing order of electron affinity of halogen's ?

35. What is the correct expression for electronegativity according to Mulliken's approach?

ENGLISH - 2 (25 MARKS)

I. Read the following passage.

A popular speaker started off a seminar by holding up a $ 20 bill. A crowd of 200 had gathered to hear his speech. He asked, "Who would like this $20 bill?" 200 hands went up. He said, "I am going to give this $20 to one of you but first, let me do this". He crumpled the bill up. He then asked, "Who still wants it?" All 200 hands were still raised. "Well", he replied. Then he dropped the bill on the ground and stamped on it with his shoes. He picked it up and showed it to the crowd. The bill was all crumpled and dirty. Now who still wants it? he asked. All the hands still went up. My friends, I have just showed you a very important lesson. No matter what I did to the money. You still wanted it because it did not decrease in value. It was still worth $20. Many times in our lives, life crumples us and grinds us into the dirt. We make bad decisions or deal with poor circumstances. We feel worthless but no matter what has happened or what will happen, you will never lose your value. You are special. Don't ever forget it!.

Now arrange the following jumbled sentences in a sequential and meaningful order. **5m**

1. He picked it up and showed it to the crowd.

2. A popular speaker started off a seminar by holding up a $20 bill.

3. He dropped the bill on the ground and stamped on it.

4. We feel worthless but no matter what has happened or what will happen you will never lose your value.

5. Many times in our lives, life crumples us and grinds us into the dirt.

II. **Read the paragraph and write the synonyms of the underlined words choosing from the words given in the box.** **2m.**

Vital	mean	share	dissatisfaction
argument	insufficient	regional	

Now whether this happens at the national level or at the regional level or even at the global level, sooner or later there is discontent (a) and when the discontent is strong enough there is conflict (b) so good management of the natural resources, equitable distribution (c) of these resources is important (d) for peace.

III. **Read the paragraph and match the the words under' A' with their antonyms under 'B'.**
we were a British colony and the British government at the time started to clear (1) cut the indigenous (2) forests in our forested mountains because they wanted to establish commercial (3) plantations of exotic (4) species of trees.   **4 x ¹/₂= 2 M**

A.		B.	
1)	clear	a)	non commercial
2)	indigenous	b)	native
3)	commercial	c)	foreign
4)	exotic	d)	unclear
		e)	peace
		f)	distinct

IV. **Fill in the blanks with the right form of the words given in brackets.   2m.**

I'm very happy about the fact that now in Africa you see new efforts of ....(a) (ensure /ensuring) that Africans ....(b) (engage/engagement) in dialogue, that they invest in ....(c) (peace/peaceful) negotiations for conflicts, that we manage our environment. We must restore our environment and try to ensure that we do not fight, because we are ....(d) (allow/allowing) the environment, especially the land, to be degraded.

V. **Complete the spellings of the words choosing ai, ia, oo, io,ee,ei, ea   2×¹/₂=1m.**

When I was a child which is almost more than fifty y __ __ rs (a) ago, environment was very pristine, very beautiful and very gr__ __n (b).

VI. **Complete the words with correct suffixes given in brackets .   2×1/2=1m.**

They soon gained confid___ (ence/ance) (a) and they became very compe___ (tent/ tant) (b) foresters.

VII. **Find the wrongly spelt word and write its correct spelling.   2×1=2m.**

1. hemispehre   campaign   reservoir   flora

2. rusting   repetition   compound   divercity

VIII. **Read the following dictionary entry of the word 'loyal' given below.**

loyal /ˈlɔɪəl/ adj. ~ (to sb / sth) remaining faithful to sb/sth and supporting them or it SYN true: a loyal friend / supporter ◊ She has always remained loyal to her political principles. OPP disloyal ► loy.al.ly /ˈlɔɪəli/adv.

Now, answer the following questions using the information above.   2 x 1 = 2 M

a) What is the part of speech of the word 'loyal'?

b) Write the antonym of the word 'loyal'.

IX. **Arrange the following words under correct headings.** 8×1/4 =2m.

Anthropologist,   mental illness,   Language,   ornithologist,
Psychiatrist,   Linguist,   birds,   human race

persons	Nature of study
1.	1. ....
2.	2. ....
3.	3. ....
4.	4. ....

X. **Use the given words in sentences of your own** 4×1=4m

Phrasal verbs	:	Trailed off
Binomial expression	:	Heart and soul
foreign expression	:	Bonafide
Idiom	:	On purpose

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

4 x $\frac{1}{2}$ = 2 M

A		B	
1. Teetotaler	A)	treats heart diseases.
2. Incorrigible	B)	a person whose job is to take care of people's teeth.
3. Verbose	C)	one who abstains from taking alcohol.
4. Cardiologist	D)	a person or thing that cannot be corrected
	E)	using more words than needed
	F)	one who is not sure about the existence of God.