HIM ACADEMY PUBLIC SCHOOL
Hira Nagar, Hamirpur (H.P.)-177001 Ph.:(01972)-222829, 223428
Website : WWW.haps.co.in e.mail: haps 1998@gmail.com
Affiliated to H.P. Board of School Education, Dharamshala School Code: 1573

Sample Entrance Test - 2017
Class - 10+1 (Science)

English

Time : 30 min. **Max. Marks - 20**

1. Read the following passage below and answer the questions that follow:-

In this world there is no worse nuisance than a boy at the age of fourteen. He is neither ornamental nor useful. It is impossible to shower affection on him as on a smaller boy; and he is always getting in the way. If he talks with a childish lisp he is called a baby, and if in a grown-up way he is called impertinent. In fact, talk of any kind from him is resented. Then he is at the unattractive, growing age. He becomes out of his clothes with indecent haste. His voice grows hoarse and breaks and quivers; his face grows suddenly angular and unsightly. It is easy to excuse the shortcomings of early childhood, but it is hard to tolerate even unavoidable lapses in a boy of fourteen. He becomes painfully self-conscious, and when he talks with elderly people he is either unduly forward, or else so unduly shy that he appears ashamed of own existence.

Yet, it is at this age that in his heart of hearts, a young lad most craves recognition and love; and he becomes the devoted slave of any one who shows him consideration. But none dare openly love him, for that would be regarded as undue indulgence and therefore bad for the boy. So, what with scolding and childing, he becomes very much like a stray dog that has lost its master.

His own home is the only paradise that a boy of fourteen can know. To live in strange house with strange people is little short of torture; while it is the height of bliss to receive the kind looks of women and never to suffer their slights.

Choose the most appropriate option out of the following :

(i) The expression 'he is always getting in the way' means that he is

a) found / seen everywhere you go

b) behaving in a way different from expected /desired

c) always troubling others with his undesired ways

d) he goes where he is asked to

(ii) A lad of fourteen years is resented because

a) he behaves too childishly

b) he acts like a grown-up

c) his behaviour becomes neither of a child nor of a grown-up

d) he looks troublesome

(iii) What is the writer's own attitude towards the fourteen year old boy?

a) satirical **b)** sympathetic **c)** indifferent **d)** none of these

[3×1=3]

2. Using following key-words, form a passage and also provide a suitable title for it.

Rabinderanath Tagore, born 1861 Calcutta, education at home, a number of poems, stories, novels, a thinker, painter and musician, awarded the Nobel Prize for Gitanjali in 1913

[5]

3. Write a paragraph in about 100 words on any one of the following :-

i) Importance of Discipline

ii) India of my dreams

iii) My aim in life [5]

4. Fill in the banks with correct options from those given below :-

[to, by, in, out, since, from, with]

i) This material is different _____ that.

ii) He has been absent _____ Monday.

iii) They are called _____ different names. [3×1=3]

5. Rearrange following words and phrases into meaningful sentences:-

i) is / good / both / for / and / early / rising / old / adults

ii) place / our/ music / lives / has / important / in / an [2×1=2]

6. Transform the following sentences into indirect speech :-

i) He said, "I have a toothache".

ii) "Hurry up", she said to us. [2×1=2]

[Section - A (Physics)]

Time : 25 min. **Max. Marks - 15**

.....

1. What is the SI unit of the power? [1]

2. Why do star twinkle? [1]

3. What is the unit of the electric charge? [1]

4. The human eye forms the image of an object at its _____. [1]

5. On what factors does the resistance of a conductor depends. [1]

6. How can three resistance 2Ω, 3Ω and 5Ω be connected to give a total resistance of

a) 4Ω b) 1 Ω? [2]

7. Define 1 dioptre of power of lens. Find the power of a concave lens of focal length 2m. [2]

8. How much work is done in moving a charge of 2C across two points having a p.d of 12V. [2]

9. Write the function of the following :-

i) ciliary muscles ii) Iris [2]

10. Write the 3 uses of concave mirror. [2]

.....

[Section - B (Chemistry)]

Time : 25 min. **Max. Marks - 15**

.....

1. How many valence electrons will Nitrogen have? [1]

2. Draw the structure of given compound Butane. [1]

3. Balance the given equation :

$NaC\ell_{(aq)} + H_2O_{(\ell)} \rightarrow 2NaOH_{(aq)} + C\ell_{2(g)} + H_{2(g)}$ [1]

4. Complete the following equation :

$NaHCO_3 \xrightarrow{Heat}$

Sodium

Hydrogen

Carbonate [1]

5. Why do you think the noble gases are placed in a separate group? [1]

6. Define: (i) Rancidity (ii) Corrosion [2]

7. Why are carbon and its compound used as fuels for most applications? [2]

8. Draw electron dot structure of

i) F_2 **ii)** H_2S [2]

9. Give an example of metal which

i) is liquid at room temp.

ii) is the best conductor of heat [1,1]

10.Define following terms:-

i) Mineral

ii) Ore [1,1]

[Section - C (Biology)]

Time : 30 min. **Max. Marks - 20**

1. Define variation. [1]

2. Name the enzyme present in Saliva. [1]

3. Name two organism that reproduce by Budding. [1]

4. What is the structural and functional unit of kidney? [1]

5. Define Double circulation. [1]

6. Expand DNA. [1]

7. What are Analogous organs? Give 2 examples. [2]

8. Write two difference between Xylem and Phloem. [2]

9. Why do the wall of Trachea (wind pipe) don't collapse? [2]

10. Why the rate of respiration is more in aquatic animals than that of Terrertrial animals? [2]

11. Difference between Aerobic and Anaerobic Respiration. [3]

12. Draw the diagram of Digestive system.

OR

Draw well labelled diagram of Circulatory system. [3]

Maths

Time : 30 min. **Max. Marks - 20**

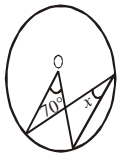
[Section - A]

1. Find the roots of the quadratic equation $3\sqrt{2}\,x^2 - 5x - \sqrt{2} = 0$.

2. Which term of the A.P. 3, 8, 13, 18, ... is 78?

3. Find the ratio in which the line segment joining the points (6, 3) and (3, –9) is divided by the x-axis.

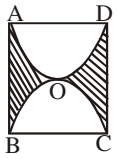
4. Find the value of x.



[4×2=8]

[Section - B]

5. ABCD is a square of side 20cm. Find the area of shaded part.



6. A largest sphere is carved out of a cube of side 7cm. Find the volume of the sphere.

7. One card is drawn from a well shuffled deck of 52 cards. Find the probability of getting a king of red suit.

8. Evaluate:-

$$\left(\frac{\text{Sin } 27°}{\text{Cos } 63°}\right)^2 + \left(\frac{\text{Cos } 63°}{\text{Sin } 27°}\right)^2$$

[4×3=12]