

JK-84
DISTRICT COMMON EXAMINATION BOARD, WARANGAL
SSC PRE-FINAL EXAMINATION - 2015-16
GENERAL SCIENCE (PAPER-1)

(English Version)

10th Class]

(Max. Marks : 40)

[Time : 2:45 hrs

INSTRUCTIONS :

1. Answer all the questions
2. 15 min time is given to read & understand the question paper
3. There is internal choice for questions from Section III. Only one option from each question is to be attempted.

SECTION - I

7x1=7

Instructins : 1. Answer all questions in one or two sentences.

2. Each question carries one mark.

1. How much heat energy is required to convert 4000g of water at 100^oc to water vapour (Latent heat of vaporization of water is 540 cal/g)
2. Write the IUPAC name of $\text{CH}_2=\text{CH}-\underset{\text{OH}}{\text{CH}}-\text{CH}_2-\text{CH}_3$
3. Write the materials required in the experiment which tells you that V/I ratio of a conductor is constant.
4. Quantum Numbers set of a valance electron in a neutral atom is $n=3, l=0, m_l=0, m_s=+1/2$. Write the name of the element?
5. Specific heats of some substances are given below in cal/g

Lead	Brass	Iron	Copper	Aluminium
0.031	0.092	0.115	0.095	0.21

- (i) Which substance heats up first?
- (ii) Which substance is most suitable to prepare the lids of kitchenware
6. In a reaction aqueous Lead Nitrate is added to aqueous Potassium Iodide. A yellow coloured precipitate and aqueous Potassium Nitrate is formed. Which type of reaction it is? Write the name of the precipitate formed.

[Turn Over

7. Give some examples where total internal reflection phenomenon occurs in nature

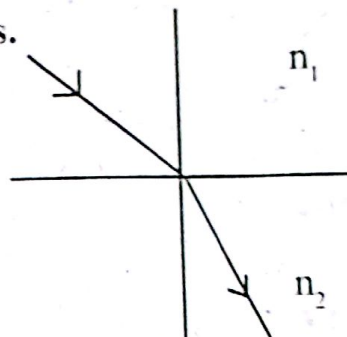
SECTION - II

6x2=12

Instructions : 1. Answer all questions in four to five sentences.

2. Each question carries two marks.

8. Observe the following figure.



- (i) Point out the rarer medium the figure
 (ii) Draw a diagram where $\angle i < \angle r$
9. Atomic Numbers of some elements are 10, 20, 8 and 16. Write the names of the elements in ascending order of their atomic radius.
10. If we touch a live wire, we have been electrocuted but a bird sitting on the same wire is not being electrocuted. Why?
11. Alkaline Potassium Permanganate is added to a compound A and heated; Compound B and C are formed consequently. Compound C is acidic in nature. Write the name and formula of A, B and C.
12. List out the materials which evaporate faster than water and slower than water.
13. Draw the diagram of S and P orbital.

SECTION - III

4x4=16

Instructions : 1. Answer all questions in eight to ten sentences.

2. Each question carries four marks.

3. There is internal choice for questions in this Section. Only one option from each question is to be attempted.

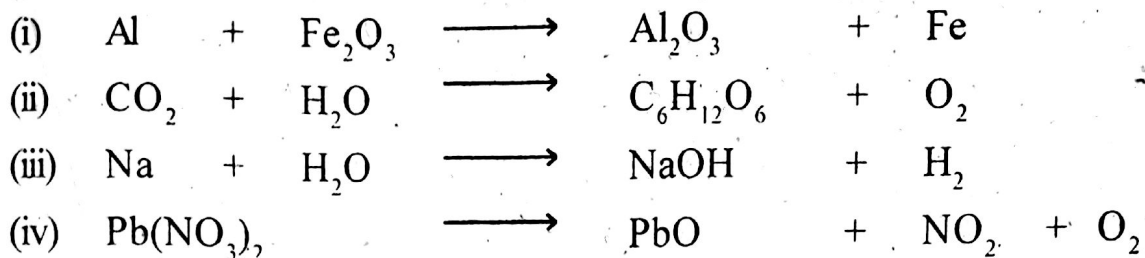
14. An object of 5cm is placed 20 cm before concave mirror on its principle axis. Radius of curvature of mirror is 30 cm.
- (i) Find the focal length of the mirror.
 (ii) Find the image distance
 (iii) Write the properties of Image formed
 (iv) Find the size of the image

[Contd., on 3rd page

(OR)

Explain the phenomenon involved in which sun appears to be red during sunrise and sunset.

15. Balance the following equations.



(OR)

Explain the covalent bond in ammonia and water molecule by using Lewis dot method.

16. Write the importance of pH in daily life.

(OR)

Write some instances where corrosion in daily life. Write how corrosion can be prevented.

17. Explain the experiment to prove magnetic field induced along a current carrying straight conductor

(OR)

Write the procedure of the experiment to find the focal length of convex lens.



SECTION -IV

Instructions : 1. Choose the correct answer.

2. Each question carries $\frac{1}{2}$ mark.

18. Resultant temperature of a mixture of 20g ice at 0°C and 20g water at 50°C ()
a) -10°C b) 20°C c) -20°C d) 25°C
19. Normally duration of daytime is more than night time because of ()
a) Refraction b) Reflection c) Diffraction d) Scattering
20. Image formed on retina by eye-lens ()
a) Real-Erected - Diminished b) Real - Inverted - Diminished
b) Real - Inverted - Enlarged d) Virtual - Erected - Enlarged
21. We are not able to see through fog. The reason behind this is ()
a) Fog absorbs light b) Refractive Index of fog is 1
c) Light suffers Total internal reflection among the droplets of fog
d) Light undergoes scattering among the droplets of fog.
22. If $10\ \Omega$, $40\ \Omega$, $100\ \Omega$ resistances are connected in series, effective resistance of the combination is ()
a) $100\ \Omega$ b) $140\ \Omega$ c) $150\ \Omega$ d) $40\ \Omega$
23. Covalent substance among the following is ()
a) CaO b) HCl c) KCl d) Na_2S
24. Highly reactive metal among the following is ()
a) Lithium b) Sodium c) Potassium d) Rubidium
25. Compound which can be used as bleaching agent is ()
a) $\text{Na}_2\text{S}_2\text{O}_3$ b) CaOCl_2 c) $\text{Na}_2\text{S}_2\text{O}_4$ d) CuSO_4
26. Method employed in dressing of sulphide ore is ()
a) Magnetic separation b) Hand Picking
c) Froth Flotation d) Washing
27. Range atomic numbers of lanthanides is ()
a) 89 - 102 b) 58 - 71 c) 71 - 103 d) 90 - 103