

SRI HANUMANTA M.H.S.S
SCIENCE
HALF YEARLY EXAM - 2019
ANSWER KEY

I Choose the best answer

- 1) $8.31 \text{ J mol}^{-1} \text{ K}^{-1}$
- 2) Electrical Energy
- 3) vibrate along the direction of the wave motion
- 4) Iron-59

II Answer in one (or) two sentences

13) 1942, In Chicago, USA (1+1)

22) $I = 2 \text{ A}$ $V = 30 \text{ V}$

$$R = \frac{V}{I} \rightarrow 1 \text{ m}$$

$$= \frac{30}{2}$$

$$R = 15 \Omega \rightarrow 1 \text{ m}$$

III Answer in brief

23) Boyle's law - 2 m

i)

ii) Ideal gas and real gas $\rightarrow 2 \text{ m}$

24) i) Role of Earth wire $\rightarrow 2 \text{ m}$

ii) Merits of LED $\rightarrow 2 \text{ m}$

IV Answer in detail

33) i) Statement $\rightarrow 2 \text{ m}$

i)

Derivation $\rightarrow 3 \text{ m}$

ii)

$$V = \frac{P}{m} \rightarrow 1 \text{ m}$$

$$= \frac{2.5}{5}$$

$$V = 0.5 \text{ m s}^{-1} \rightarrow 1 \text{ m}$$

33) b) i) Myopia and Hypermetropia (any three) → 3m

ii) Convex lens and concave lens (any four) → 4m

C. Nagata
21/12/19

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HALF YEARLY EXAM - 2019.

SCIENCE SBMHSS

10 - std.

ANSWER KEY.

CHEMISTRY.

PART-I.

5. a). 17th.

7. a) Large surface area.

PART-II.

15. $\text{Ca}_3(\text{PO}_4)_2$.Ca \rightarrow 40120 + 188 \Rightarrow 308P \rightarrow 30O \rightarrow 16

16. Importance of pH any

four point.

18. (i) Electroplating
(ii) Galvanisation

}

(2).

PART-III.

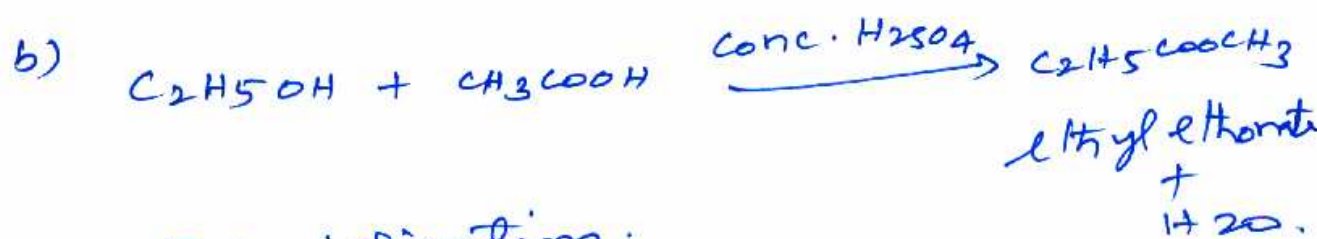
25. a) (i) ethanol
(ii) ethanoic acid.

$$b). \text{ Volume \%} = \frac{\text{Volume of solute}}{\text{Volume of solution}} \times 100$$

$$20 = \frac{200 \times 20}{100} = \frac{4000}{100} = 40$$

= 40 ml.

32. a) ethanoic acid (or) CH_3COOH



c) Esterification.

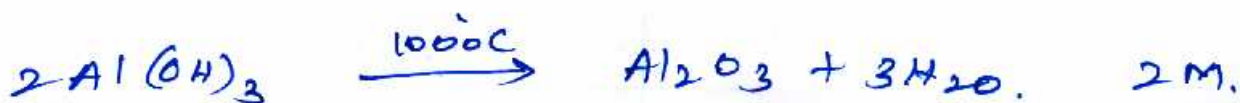
34. (i) Bauxite : $\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$.

cryolite : Na_3AlF_6

corundum : Al_2O_3 .

} (2)

(34). (ii) Bayer's process →



Hall's process

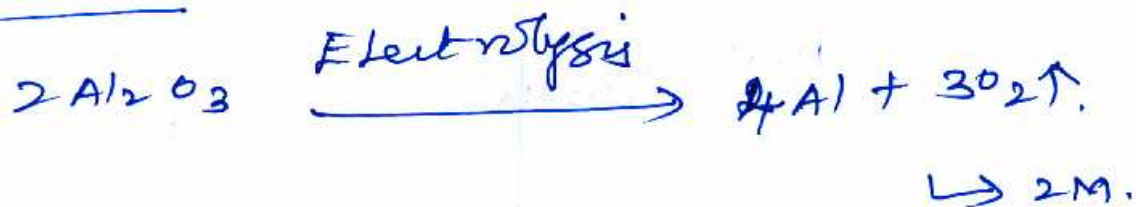


Diagram → 1 M.

(OR)

(i) Three difference → (3)

(ii) Deliquescent	hygroscopic.	} 2M
Coppersulphate	(i) conc. H ₂ SO ₄ .	
CaCl ₂	(ii) silica gel	
	(iii) Gypsum salt	

(iii) Mass % of solute = $\frac{\text{Mass of solute}}{\text{Mass of solute} + \text{Solvent}} \times 100$

$$= \frac{45}{45 + 180} \times 100$$

$$= 20\%$$

} 2M.

Handling Teachers: -

1. VP sir V. Harmani
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2. M. N. M. N.
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3. ET1 ET1

4. N. Sudha

Yamuna Deyal
21/12/19

HALF-YEARLY EXAMINATION DEC. 2019X StdSCIENCE-IIANSWER/SCORING KEYMAX MARKS
75PART-ICHOOSE THE BEST ANSWER (5X1=5)

- 6 (c) 1 - (ii), 2 - (iv) 3 - (i) 4 - (iii)
8. (b) Mitochondrial matrix
- 9 (c) dramater
- 10 (a) retina of eye
11. (d) Large feathery stigma
- 12 (b) Metacentric.

part-IIANSWER ANY SEVEN QUESTION (7X2=14)

- 17 (i) Autonomic nervous system - 1 mark
(ii) Sympathetic nerves $\frac{1}{2}$, parasympathetic nerves $\frac{1}{2}$ mark
- 19 Any two importance of fossils - $2 \times 1 = 2$
- 20 Genetic engineering is the manipulation and transfer of genes from one organism to another - 2 marks
- 21 Script area, Block menu, Block palette - 2 marks

part IIIAnswer any seven questions (7x4=28)

- (26) (i) Inner mitochondrial membrane - tennis racket shaped particles - 1 mark.
(ii) Diagram of oxy-somes - $1(\frac{1}{2} + \frac{1}{2})$
(iii) definition of photosynthesis - 1 mark
(iv) Equation of photosynthesis - 1 mark.

- (27) (i) Looping / Crawling movement - $\frac{1}{2}$ mark
Swimming - $\frac{1}{2}$ mark

- (i) Medicinal value of Leech - 2 marks
Removing blood clot - drugs for treating hypertension -
Blood letting - (any 2 uses)

- 28 Reflex action definition 2 marks
Simple or basic reflexes - 1 mark
Acquired (or) conditioned reflexes - 1 mark

- 29 Monohybrid cross
F₁ generation - 2 marks
F₂ generation - 2 marks

- 30 definition of ethnobotany - 2 marks
Importance of ethnobotany - 2 marks

31. Uses of stem cells in the regenerative process - 4 marks
Parkinson's disease - Alzheimer's disease - neuronal stem cells.

Ans. all the questions
Each question carries seven marks (7 marks)

35 (a) (i) cortisol - 1 mark

Maintain the body in living conditions
 and recover from severe effects of stress
 - 1 mark

(ii) Any two physiological effects of
 Gibberellins - 1 mark.

(iii) Any four functions of blood - (4x1=4)

(00)

(b) (i) Rain water harvesting structures - 4 mark.

(ii) * pocs - protection of children from
 sexual offence - 1 mark

* objectives of pocs act 2x1=2

Subject teachers sign

1. Mrs. V. Sasi Rekha - V. Sasi Rekha
 20/12/19

2. Mrs. T. K. Jayanthi - T. K. Jayanthi
 20/12/19

3. Mr. A. Jesuraj - A. Jesuraj
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