

**CCE RR**

ಕರ್ನಾಟಕ ಪ್ರೌಢ ಶಿಕ್ಷಣ ಪರೀಕ್ಷಾ ಮಂಡಳಿ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು – 560 003

**KARNATAKA SECONDARY EDUCATION EXAMINATION BOARD, MALLESWARAM,  
BANGALORE – 560 003**

ಎಸ್.ಎಸ್.ಎಲ್.ಸಿ. ಪರೀಕ್ಷೆ, ಜೂನ್ — 2015

**S. S. L. C. EXAMINATION, JUNE, 2015**

ಮಾದರಿ ಉತ್ತರಗಳು

**MODEL ANSWERS**

ದಿನಾಂಕ : 17. 06. 2015 ]

ಸಂಕೇತ ಸಂಖ್ಯೆ : **83-E (Chem.)**

Date : 17. 06. 2015 ]

CODE NO. : **83-E (Chem.)**

ವಿಷಯ : ವಿಜ್ಞಾನ

**Subject : SCIENCE**

( ರಸಾಯನಶಾಸ್ತ್ರ / Chemistry )

( ಹೊಸ ಪಠ್ಯಕ್ರಮ / New Syllabus )

( ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ / Regular Repeater )

( ಇಂಗ್ಲಿಷ್ ಭಾಷಾಂತರ / English Version )

[ ಪರಮಾವಧಿ ಅಂಕಗಳು : 80

[ **Max. Marks : 80**

Qn. Nos.	Value Points	Total
2.	The compounds that should be added to the raw materials in the preparation of red coloured glass are <i>Ans. : (B) — Cuprous compounds</i>	1
5.	Study the following chemical reactions. $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$ $2 \text{AgNO}_3 + \text{Cu} \rightarrow \text{Cu} (\text{NO}_3)_2 + 2\text{Ag}.$ <p>The metals present in the reactions can be written in the increasing order of reactivity as</p> <i>Ans. : (D) — Ag Cu Fe.</i>	1

**RR-115**

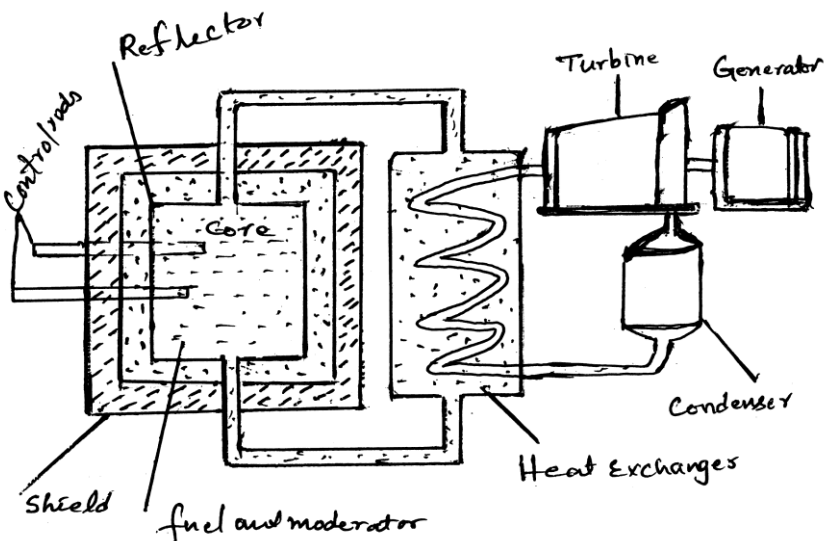
[ Turn over

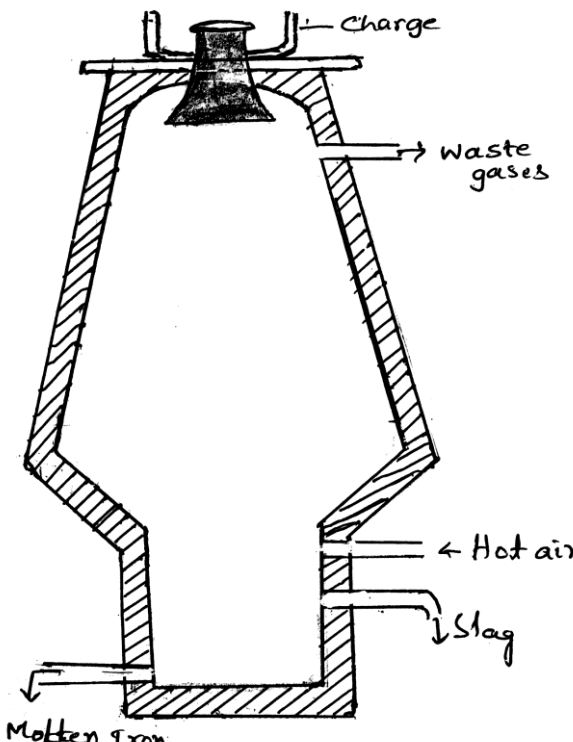
Qn. Nos.	Value Points	Total
7.	The earthen pots prepared by using clay only are generally  <i>Ans. : (A) — porous</i>	1
9.	In the following fatty acids, the acid obtained from the alkene is  <i>Ans. : (B) — C<sub>16</sub>H<sub>31</sub>COOH</i>	1
12.	Write the functional groups present in a molecule of Glycine.  <i>Ans. :</i>  — NH <sub>2</sub> and — COOH  OR  — Amino and Carboxyl.	1
24.	Write the balanced chemical equation for the following :  (a) Silica is heated with coke.  (b) Silicon is heated with coke.  <i>Ans. :</i>  a) $\text{SiO}_2 + 2\text{C} \rightarrow \text{Si} + 2\text{CO}$  b) $\text{Si} + \text{C} \rightarrow \text{SiC}$	1  1







Qn. Nos.	Value Points	Total
34.	<p>What is the role of enzyme invertase and zymase in the manufacture of ethanol from molasses ?</p> <p style="text-align: center;">OR</p> <p>What is the role of slaked lime and animal charcoal in the manufacture of sugar from sugarcane ?</p> <p>Ans. :</p> <p>Invertase enzyme converts sucrose into glucose and fructose.</p> <p>(or) <math>C_{12}H_{22}O_{11} + H_2O \xrightarrow{\text{Invertase}} C_6H_{12}O_6 + C_6H_{12}O_6</math></p> <p>Zyamase enzyme : Converts glucose and fructose into ethanol and carbon dioxide.</p> <p>(or) <math>C_6H_{12}O_6 \xrightarrow{\text{Zymase}} 2C_2H_5OH + 2CO_2.</math></p> <p style="text-align: center;">OR</p> <p>Slaked lime : Sugar juice made alkaline and the impurities get precipitated.</p> <p>Animal charcoal : Sugar can be decolourises.</p>	<p>1</p> <p>1</p> <p>1</p>
35.	<p>Draw a diagram of nuclear power reactor and label the parts.</p> <p>Ans. :</p>  <p style="text-align: center;">Nuclear power reactor</p> <p style="text-align: right;">Figure — 2</p> <p style="text-align: right;">Any two parts — <math>\frac{1}{2} + \frac{1}{2}</math></p>	<p>3</p>

Qn. Nos.	Value Points	Total
36.	<p>Let the atomic numbers of the elements <math>v</math>, <math>w</math>, <math>x</math>, <math>y</math> and <math>z</math> respectively be equal to 7, 10, 12, 4 and 19 with reference to the modern periodic table. Answer the following questions :</p> <p>(i) Which of the elements in the above is noble gas ?</p> <p>(ii) Which of the elements belong to S-block ?</p> <p>(iii) Which element has more atomic size ?</p> <p>Ans. :</p> <p>i) Element <math>W</math> is a noble gas</p> <p>ii) Elements <math>Y</math> and <math>Z</math> are S block elements</p> <p>iii) Element <math>Z</math> has more atomic size.</p>	<p>1</p> <p>1</p> <p>1</p>
37.	<p>Draw a diagram of the blast furnace used in the extraction of Iron and label the parts.</p> <div style="text-align: center;">  <p style="text-align: center;">Blast Furnace</p> </div> <p style="text-align: right;">Figure — 2</p> <p style="text-align: right;">Any two parts — <math>\frac{1}{2} + \frac{1}{2}</math></p>	<p>3</p>

Qn. Nos.	Value Points	Total
42.	<p>An experiment is conducted in the laboratory by heating the mixture of sodium acetate and sodalime. With respect to the above experiment answer the following :</p> <p>(a) Name the gas evolved and write its molecular formula.</p> <p>(b) Write the balanced chemical equation for the above reaction.</p> <p>(c) How the gas evolved is collected ?</p> <p>(d) The gas liberated does not react with Nitric acid. Give reason.</p> <p>Ans. :</p> <p>i) Methane — <math>\text{CH}_4</math> <span style="float: right;"><math>\frac{1}{2} + \frac{1}{2}</math></span></p> <p>ii) <math>\text{CH}_3\text{COONa} + \text{NaOH} \xrightarrow{\text{CaO}} \text{Na}_2\text{CO}_3 + \text{CH}_4</math>.</p> <p>iii) Collected by the downward displacement of water.</p> <p>iv) Since it is saturated, it is unaffected by the oxidising agent.</p>	1 1 1 1