

Expert Report in Compliance of Judgment passed by Hon'ble HC in
 SBCWP No. 2499/2017 (Judgment dated 22-02-17)
 Rajasthan Public Service Commission, Ajmer

Expert Validation of Answer Key

Name of Examination Clerk M. II Exam 2013 Paper I G.K (Physics)

Name of Expert 1 Dr. ...

With Post & Contact no. 2 Dr. ...

Question No. (Series A)	Answer	Remarks/References (Use proper arguments or references in support of your answers)
65	2	The angle of deviation and dispersion depends upon material of prism, prism angle and angle of incidence. Deviation is maximum for violet and minimum for red. It is generally accepted that mean deviation corresponds to yellow color. Therefore, option (2) yellow is correct.
68	4	Electrical resistivity is a property of a material and it does not depend upon length, area of cross section and shape for bulk materials. The answer (4) the nature of materials
74	4	The question is about characteristic which is <u>not</u> suitable (important) for a fuse wire. The fuse of different length are required in applications. Thickness & length is not important. The answer (4) Thick and short is correct

Additional Remarks :-

Expert Report, in Compliance of order passed by Honble High Court
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 Rajasthan Public Service Commission, Ajmer

Expert Validation of Answer Key

Name of Examination Clerk gr II Exami 2013 Paper I (GK) Maths

Name of Expert 1

(with Post & Contact no.) 2

Question No. (Series A)	Answer	Remarks/References (Use proper arguments or references in support of your answers)
Q. No. 144	3	Detail solution (signed copy) enclosed. $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \times \frac{-b \mp \sqrt{b^2 - 4ac}}{-b \mp \sqrt{b^2 - 4ac}}$ $= \frac{2c}{-b \pm \sqrt{b^2 - 4ac}}$

Additional Remarks :- For Q. No. 144, option (3) is the CORRECT ANSWER.

Q. 144

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\frac{-b + \sqrt{b^2 - 4ac}}{2a} \times \frac{-b - \sqrt{b^2 - 4ac}}{-b - \sqrt{b^2 - 4ac}} = \frac{b^2 - b^2 + 4ac}{2a(-b - \sqrt{b^2 - 4ac})}$$

$$= \frac{4c}{-b - \sqrt{b^2 - 4ac}}$$

$$\frac{-b - \sqrt{b^2 - 4ac}}{2a} \times \frac{-b + \sqrt{b^2 - 4ac}}{-b + \sqrt{b^2 - 4ac}} = \frac{b^2 - b^2 + 4ac}{2a(-b + \sqrt{b^2 - 4ac})}$$

$$= \frac{4c}{-b + \sqrt{b^2 - 4ac}}$$

Ans $\frac{4c}{-b \pm \sqrt{b^2 - 4ac}}$

Ans 3. is right Answer.

Option 3 is right Answer.

IL

Q. No. 144

$$ax^2 + bx + c = 0$$

(1)

$$\Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x_1 = \frac{-b + \sqrt{b^2 - 4ac}}{2a} \times \frac{-b - \sqrt{b^2 - 4ac}}{-b - \sqrt{b^2 - 4ac}}$$

$$= \frac{(-b)^2 - (b^2 - 4ac)}{2a(-b - \sqrt{b^2 - 4ac})}$$

$$= \frac{b^2 - b^2 + 4ac}{2a(-b - \sqrt{b^2 - 4ac})} = \frac{2c}{-b - \sqrt{b^2 - 4ac}}$$

$$x_2 = \frac{-b - \sqrt{b^2 - 4ac}}{2a} \times \frac{-b + \sqrt{b^2 - 4ac}}{-b + \sqrt{b^2 - 4ac}}$$

$$= \frac{b^2 - b^2 + 4ac}{2a(-b + \sqrt{b^2 - 4ac})}$$

$$= \frac{2c}{-b + \sqrt{b^2 - 4ac}}$$

Thus, The roots of Eq. (1) is

$$x = \frac{2c}{-b \pm \sqrt{b^2 - 4ac}}$$

Q144, option (3) is the CORRECT ANSWER