

Paper V

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1.5

Reg. No. :

3048

[99 23 60]

(For the candidates admitted from 1999 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2001.

Seventh Semester

Physics

QUANTUM MECHANICS — II

Time : Three hours

Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

Choose the correct answer :

1. In scattering Green's function is defined through the equation

(a) $(\nabla^2 - k^2) \delta(\vec{r} - \vec{r}') = G(\vec{r}, \vec{r}')$

(b) $(\nabla^2 + k^2) G(\vec{r}, \vec{r}') = \delta(\vec{r} - \vec{r}')$

(c) $(\nabla^2 + k^2) G(\vec{r}, \vec{r}') = \delta_{,r'}$

(d) $(\nabla^2 - k^2) G(\vec{r}, \vec{r}') = 0.$