

(4)

Code No. : B-236(A)

Roll No.....

OR

What is aplanatic points? Write down its applications.

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ZalAa-3. ay ÷ Sylak ¥ sy ¥ sy qmva alyl t oaa ¥ syw/ai Zasyala ycrAa qEavamen mna qe am luamsyE/a alyl k ¥ sy - Aa Ecsyl qd sy Namā Nān

Show that the interference fringes formed in reflected and transmitted part due to thin film with monochromatic light are complementary to each other.

OR

Explain the construction and working of Michelson's interferometer. How is interferometer adjusted to obtain the localised and circular fringer.

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ZalAa-4. N dv 1pc yca Aya NaAe avwmā sga av ¥ māvimā avmE/a sja luk sy aaratm Sylak ¥ n E0j "p ¥ wpa da "p sga av ¥ ; av l u sy t amē zā m Sylak ¥ n

Obtain expression for the intensity distribution of Fraunhofer diffraction due to N slits obtain conditions for the principle maxima and minima.

OR

Derive an expression for resolving power of Febyry-Perot interfeometer.

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ZalAa-5. Zarv Eozam E3/ka sga av ¥ ; av l u sy t amē sja E l v h Sylak ¥ mna cy yA setp ; at ay 1 p la sga " a z sja ; w Syl lu a u a Sylak ¥ n

State the necessary conditions for the strong stimulated emission and in this reference explain the Einstein's coefficients A and B.

OR

Explain the construction and working of Helium-neon laser. Write two characteristics of the beam obtained from the Helium-neon laser.

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Annual Examination - 2017

B.Sc.-II

PHYSICS

Paper - II

WAVES, ACOUSTICS AND OPTICS

Max.Marks : 50

Min Marks : 17

Time : 3 Hrs.

1pc B h/2p ; ' t p Ay ; anv i t e a ZalAa Nā a k Nā n v s y E a a ; a l a v a u e l e n h / 2 p ' r ' t e v i t e a ZalAa h / 2 p ' y ' t p A a i e l e t e a u ZalAa N e n h / 2 p ' ; ' s y a y r y c q n v c n v s y E n

Note : Section 'A' is objective type, containing 10 questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.

h/2p ; '(Section-'A')

alē l a n s y m ; a m v i e l e t e a u ZalAa p s g e l e t e ¥ s y u a A a ; q h Q u a p t p A p n (Answer the following very short-answer-type questions in one or two lines.) (1x10=10)

ZalAa-1. yt o Syl a n e a c e l a q a t p s y a y a m e p a E q u a z a Syl k a m a N e -

Which wave is used for the measurement of depth of sea.

ZalAa-2. Zalātā mēpa sja qā s a o x m Sylak ¥ n

Define progressive wave.

ZalAa-3. Nāc a l a A a d a s y a m n a E t y » l a A a d a s y a t e y s y ; m E a v a h ¥ n

Write down one difference between Huygen's and Ramsden's eyepiece.

ZalAa-4. ¥ s y w / a l u a v q n a s j a q a s a o x m Sylak ¥ n

Define monochromatic aberrations.

ZalAa-5. luamsyE/a sja qā s a o x m Sylak ¥ n

Define interference.

ZalAa-6. 1 p v a d s y l a l y l k a p s j a q a s a o x m Sylak ¥ n

Define Tolansky fringes.

