

1165 - C01 - IISS - N - 15

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

ENGLISH

(Basic)

(New)

Time : 3 Hours]

[Max. Marks : 80

Text: Plays in One Act

- I. Answer the following questions in a word or a phrase or a sentence each. 1 × 10 = 10
- 1) Who bakes a cake for Bartley?
 - 2) Who do the girls think might stop Bartley from going to the fair?
 - 3) Where was a shirt and a stocking of drowned man found?
 - 4) Who had come from Milwaukee to witness the Mardi Gras festivities at New Orleans?
 - 5) What was the sign at the door of the old woman and the spinster?
 - 6) Who comes to take care of Gregory Brewster from Essex?
 - 7) Who had fought in the battle of Waterloo?
 - 8) Who comes to find about Gregory Brewster's condition?
 - 9) Where do the autograph hunters resemble?
 - 10) Which are the hotels and restaurants in New York that are patronised by celebrities and fashionable people?
- II. Explain with reference to the context any two of the following. 5 × 2 = 10
- 1) "No man at all can be living forever, and we must be satisfied."
 - 2) "I could not help observing continually above me a man who walked with a barely perceptible limp _____"
 - 3) "We heard that his housekeeper was not very good to him and that was why my father wished me to go and do what I could."
 - 4) 'The best ones are never stuck-up.'
- III. a) Maurya's tragedy is the tragedy of Ireland. Explain. 10
- Or
- b) What is the theme in 'Lord Byron's Love Letter'?

[P.T.O.]

57

3223 - C71 - HISS - N - 14

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2014

(New Syllabus)

PHYSICS

Time : 3 Hours]

[Max. Marks : 40

Answer the questions 1 to 4 in the first page of the answer book.
Calculators are allowed.

Part I (10 × 2 = 20)

Answer any ten questions.

Each question carries 2 marks.

1. In Huygen's eyepiece the ratio of the focal lengths of the field lens and eye lens is :
 - a) 1 : 2
 - b) 2 : 3
 - c) 1 : 3
 - d) 3 : 1
2. Relation between dielectric constant K and susceptibility ψ_e is :
 - a) $K = \frac{\psi_e}{\epsilon_0} - 1$
 - b) $K = 1 - \frac{\psi_e}{\epsilon_0}$
 - c) $K = 1 + \frac{\psi_e}{\epsilon_0}$
 - d) $K = 1 + \frac{\epsilon_0}{\psi_e}$
3. Condition for resonance in LCR parallel circuit is :
 - a) $R > \sqrt{\frac{L}{C}}$
 - b) $R < \sqrt{\frac{L}{C}}$
 - c) $R = \sqrt{\frac{C}{L}}$
 - d) $R = \sqrt{\frac{L}{C}}$
4. The earth inductor is an instrument for measuring the :
 - a) Magnetic elements.
 - b) Strong magnetic field.
 - c) Only B_H .
 - d) B_H & B_V and dip.
5. Mention any two methods of reducing spherical aberration.
6. Write Lagrange and Helmholtz equation in case of spherical refracting surface with usual notations.
7. State Gauss Law in dielectrics.
8. Give the statement of Ampers circuited law.
9. Define j -operator.
10. A co-axial lens system placed in air has two lenses of focal lengths $3f$ and f and are separated by a distance of $2f$, find the equivalent focal length of the combination.
11. The lower and upper half power frequencies of resonant circuit are 2000 Hz and 2250 Hz respectively. Calculate the bandwidth.
12. The successive throws in a S.G are 10 cm and 9.8 cm on the same side. Find its logarithmic decrement. [Given $\log 1.0234 = 0.008770$]

Surface with usual

are separated

and 2250 Hz

127

2182 - C71 - IISS - N - 16

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

PHYSICS

Time : 3 Hours]

[Max. Marks : 80

*Answer the questions 1 to 4 in the first page of the answer book.
Calculators are allowed.*

Part I - (Marks: $10 \times 2 = 20$)

Answer any ten questions. Each question carries 2 marks.

1. In spherical aberration, the best position of the screen to get minimum defect is:
 - a) towards the object space
 - b) circle of least confusion
 - c) at infinite distance from the lens
 - d) none of these.
2. Unit of displacement \vec{D} is :
 - a) same that of \vec{E}
 - b) same as \vec{P}
 - c) same as that of \vec{E} /coloumb
 - d) same as that of charge.
3. If R is the radius of each coil in the Helmholtz galvanometer, then the rate of change of magnetic field is constant at a distance.
 - a) $\pm R$
 - b) $\pm R/2$
 - c) $\pm R/4$
 - d) $\pm 2R$
4. For a galvanometer, the current which will produce unit deflection on a scale at a specific distance is known as
 - a) reduction factor
 - b) amplification factor
 - c) tangent factor
 - d) figure of merit
5. State Fermat's Principle of stationary time.
6. What is chromatic aberration?
7. What is an electric image?
8. State Ampere's circuital law.
9. Define angle of dip.
10. The total lengths of two lenses forming achromatic doublet are 1.2m and 0.8m respectively. What is the ratio of their dispersive power?

[P.T.O.]

2182 - C71 - IISS - N - 16

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

PHYSICS

Time : 3 Hours]

[Max. Marks : 80

*Answer the questions 1 to 4 in the first page of the answer book.
Calculators are allowed.*

Part I - (Marks: $10 \times 2 = 20$)

Answer any ten questions. Each question carries 2 marks.

1. In spherical aberration, the best position of the screen to get minimum defect is:
 - a) towards the object space
 - b) circle of least confusion
 - c) at infinite distance from the lens
 - d) none of these.
2. Unit of displacement \vec{D} is :
 - a) same that of \vec{E}
 - b) same as \vec{P}
 - c) same as that of \vec{E} /coloumb
 - d) same as that of charge.
3. If R is the radius of each coil in the Helmholtz galvanometer, then the rate of change of magnetic field is constant at a distance.
 - a) $\pm R$
 - b) $\pm R/2$
 - c) $\pm R/4$
 - d) $\pm 2R$
4. For a galvanometer, the current which will produce unit deflection on a scale at a specific distance is known as
 - a) reduction factor
 - b) amplification factor
 - c) tangent factor
 - d) figure of merit
5. State Fermat's Principle of stationary time.
6. What is chromatic aberration?
7. What is an electric image?
8. State Ampere's circuital law.
9. Define angle of dip.
10. The total lengths of two lenses forming achromatic doublet are 1.2m and 0.8m respectively. What is the ratio of their dispersive power?

[P.T.O.]