

Internal Assessment Paper
Shri Lal Bahadur Shastri Degree College, Gonda
B.Sc 4th Semester
Physics
2024-25

Max. Time: 45:00 Minute

Max. Marks: 20

Name of the Students: _____

Roll Number:-

Note: All the Questions are **Compulsory**. Each Question carry **ONE** marks. No **negative** marks for wrong answered or unsolved.

1. Classical Mechanics does not explain
 - (i) Photo electric effect
 - (ii) Black body radiation
 - (iii) Compton effect
 - (iv) All of these
2. Compton Shift will be
 - (i) $\Delta\lambda = \frac{h}{mv} (1-\cos\theta)$
 - (ii) $\Delta\lambda = \frac{h}{mc^2} (1-\cos 2\theta)$
 - (iii) $\Delta\lambda = \frac{h}{mc} (1-\cos\theta)$
 - (iv) $\Delta\lambda = \frac{h}{m_0c} (1-\cos\theta)$
3. Single diode is used in
 - (i) Half wave rectifier
 - (ii) Full wave Rectifier
 - (iii) Oscillation
 - (iv) None of these
4. Matter wave associated due to motion of electron is
 - (i) $\lambda = \frac{h}{mv}$
 - (ii) $\lambda = \frac{h}{mc^2}$
 - (iii) $\lambda = \frac{h}{m_e v_e}$
 - (iv) $\lambda = \frac{h}{m_0 E}$
5. In inertial frame of reference which law holds.
 - (i) Newton's 1st law
 - (ii) Newton's 2nd Law
 - (iii) Newton's 3rd Law
 - (iv) All of these
6. Which is correct
 - (i) $l = l_0 / (1 - v^2/c^2)$
 - (ii) $l_0 = l / (1 - v^2/c^2)$
 - (iii) $l = l_0 / (1 - v^3/c^3)$
 - (iv) None of these
7. Earth is
 - (i) Inertial frame of reference as compared to laboratory.
 - (ii) Non-inertial frame of reference as compared to sun.
 - (iii) Non-inertial frame of reference as compared to laboratory.
 - (iv) option as b both are corrected

हेतुके कि प्रश्न, प्रश्न का उत्तर
के लिए सही उत्तर
श्री लाल शर्मा का उत्तर
गणना

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8. Ether hypothesis was proposed by.
- (i) Einstein (iii) Michelson-Morley
(ii) Lorentz (iv) Newton
9. μ -meson particle shows, which phenomenon is true.
- (i) time-dilation (iii) Mass Variation
(ii) length contraction (iv) All of these
10. speed of light is constant in every frame of reference is suggest
- (i) Postulates of special theory of relativity (iii) velocity addition Theorem
(ii) Inertial frame of reference (iv) Galilean Transformation equation
11. For fast data transforming, we use
- (i) Electrical Cable (iii) Light Emitting Diode
(ii) Optical fibre (iv) None of These
12. Step-Index & Acceptance cone is related with
- (i) Michelson-Morley Experiment (iii) de-Broglie wave
(ii) Fibre optics (iv) Compton effect
13. Under Galilean transformation, which quantity is invariant.
- (i) displacement along n-axis (iii) Acceleration
(ii) Velocity (iv) Momentum
14. $\lambda = \sqrt{150/V}$ is true for a matter wave associated by
- (i) proton (iii) Electron
(ii) photon (iv) All of these
15. A Semiconductor which is pure, is called
- (i) Intrinsic Semiconductor (iii) n-type Semiconductor
(ii) Extrinsic Semiconductor (iv) p-type semiconductor
16. Matter wave was experimentally proved by
- (i) Wein law (iii) Davisson-Germer's Experiment
(ii) Michelson-morley experiment (iv) All of there
17. Normalized condition of wave function is
- (i) $\int_0^1 |\psi|^2 dx = 0$ (iii) $\int_{-\infty}^{+\infty} |\psi|^2 dx = 0$
(ii) $\int_{-\infty}^{+\infty} |\psi|^2 dx = 1$ (iv) $\int_0^{+\infty} |\psi|^3 dx = 1$
18. Correct relation of de-Broglie wave length
- (i) $\lambda = \frac{h}{p}$ (iii) $\lambda = \frac{h}{\sqrt{3mkT}}$
(ii) $\lambda = \frac{h}{\sqrt{2mE}}$ (iv) All of these
19. Which relation shows mass-energy relation
- (i) $E = \frac{mc}{\lambda}$ (iii) $E = \frac{mc}{h}$
(ii) $E = mc^2$ (iv) $E^2 = m^2c^2$
20. Relation between phase velocity & group velocity
- (i) $V_g = V_p - \lambda dV_p/d\lambda$ (iii) $V_g = V_p - m dV_p/dk$
(ii) $V_g = V_p - h dV_p/md\lambda$ (iv) $V_g = V_p - \lambda dV_p/dk$

Shri Lal Bahadur Shastri Degree College Gonda

Department of Physics

Continuous and Comprehensive Evaluation

2024-25

B.Sc.IV Semester

Paper- Perspectives of Modern Physics & Basic Electronics

S.No.	Name Of Student	Roll No.	M.M	Marks obtain
1	Sarvesh Kumar Pandey	23040100110149	20	05
2	Sachin Mishra	23040100110137	20	11
3	Aman Shukla	23040100110030	20	12
4	Aman Jayswal	23040100110026	20	05
5	Labi Ahmad	23040100110090	20	09
6	Mukesh Kumargupta	23040100110103	20	06
7	Abhay Kumar Dubey	23040100110002	20	11
8	Veer Bahadur Shukla	23040100110193	20	06
9	Mahek Bano	23040100110313	20	09
10	Avantika Mishra	23040100110244	20	10
11	Divyanshi Singhaniya	23040100110261	20	08
12	Nikita Srivastava	23040100110350	20	11
13	Muskan Siddiqui	23040100110335	20	10
14	Anushka singh	23040100110233	20	07
15	Himanshu Pandey	23040100110077	20	08
16	Vertika Tripathi	23040100110451	20	14
17	Kaushal Yadav	23040100110085	20	11
18	Priyanka Sonkar	23040100110368	20	08
19	Roshni Shukla	23040100110380	20	09
20	Tejswani Singh	23040100110444	20	07
21	Fatima khatoon	23040100110264	20	08
22	Manshi Singh	23040100110322	20	11
23	Shruti Mishra	23040100110421	20	14
24	Kanchan Gupta	23040100110289	20	05
25	Anshika srivastava	23040100110229	20	13
26	Bhumika Maurya	23040100110251	20	16
27	Sonam Jayswal	23040100110431	20	14
28	Eram Parveen	23040100110263	20	08
29	Deepu Yadav	23040100110063	20	11
30	Bushra	23040100110252	20	06
31	Harshita Patwa	23040100110273	20	07
32	Arti Jayswal	23040100110239	20	08
33	Akashi Singh	23040100110210	20	05
34	Shruti Tiwari	23040100110422	20	09
35	Malti verma	23040100110317	20	10
36	Pragya Kasaudhan	23040100110361	20	08
37	Garima kasudhan	23040100110265	20	11
38	Kajal Pandey	23040100110286	20	13
39	Aaradhya Raj	23040100110211	20	11
40	Himanshi	23040100110274	20	09
41	Ayushi Chaturvedi	23040100110274	20	14
42	Vivekanand Tiwari	23040100110206	20	11
43	Pusker	23040100110119	20	07
44	Ajeet jayswal	23040100110018	20	08
45	Vivek Pandey	23040100110205	20	04
46	Nitin Tiwari	23040100110110	20	11
47	Sameer Tiwari	23040100110140	20	12
48	Akhilesh Kanaujiya	23040100110019	20	07
49	Anand kumar Shukla	23040100110036	20	11

50	Aditya Singh	23040100110014	20	05
51	Ayush kumar	23040100110053	20	04
52	Sanjay Chaudhary	23040100110144	20	06
53	Dhruv Prakash Pathak	23040100110065	20	09
54	Adesh Singh	23040100110013	20	06
55	Shiva Singh	23040100110164	20	11
56	Sandeep Verma	23040100110143	20	05
57	Karan Paswan	23040100110082	20	10
58	Ravi Mishra	23040100110129	20	07
59	Ashish Tiwari	23040100110049	20	09
60	Adarsh Pandey	23040100110011	20	11
61	Abhay Shukla	23040100110004	20	12
62	Gulshan Shukla	23040100110073	20	07
63	Shivam Maurya	23040100110167	20	08
64	Durgesh	23040100110069	20	04
65	Ashutosh kumar Pandey	23040100110051	20	09
66	Sumit Dubey	23040100110185	20	07
67	Saurabh Tiwari	23040100110157	20	09
68	Shiva Awasthi	23040100110163	20	10
69	Anand	23040100110035	20	06
70	Aman	23040100110025	20	10
71	Amit kumar Shukla	23040100110033	20	09
72	Sandeep kumar	23040100110141	20	07
73	Anshuman Shukla	23040100110044	20	15
74	Sachin Pandey	23040100110138	20	09
75	Harse mishra	23040100110075	20	05
76	Avesh Raza	23040100110001	20	11
77	Vikash Maurya	23040100110198	20	08
78	Shubham Mishra	23040100110175	20	07
79	Mohd Anas	23040100110096	20	08
80	Rahul Pandey	23040100110122	20	05
81	Diwaker Shukla	23040100110068	20	04
82	Pradeep kumar verma	23040100110112	20	09
83	Arpit Sharma	23040100110112	20	11
84	Ujjwal Ashish	23040100110190	20	10
85	Sankar Srivastva	23040100110147	20	07
86	Abhay kumar Pandey	23040100110003	20	11
87	Chandrashekhar Jayswal	23040100110061	20	12
88	Bharat Lal	23040100110057	20	14
89	Abhay kumar Pandey	23040100110003	20	11
89	Shyam Sharma	23040100110179	20	09
90	Manish Shukla	23040100110094	20	08
91	Sachin yadav	23040100110139	20	11
92	Alok kumar kanaujiya	23040100110024	20	12
93	Pushpendra Tiwari	23040100110120	20	05
94	Pushpendra Tiwari	23040100110120	20	05

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10/11