

The Berar General Education Society's

**SHRI RADHAKISAN LAXMINARAYAN TOSHNIWAL COLLEGE OF  
SCIENCE, AKOLA**

NAAC Re-accredited by 'A' Grade (CGPA-3.12)

**Department of Physics**



In Collaboration with

**Internal Quality Assurance Cell (IQAC)**

*On The Occasion Of the Golden jubilee year Celebration of college*

*Department of Physics Organises*

**"Online Physics MCQs Test on Mobile Phones for  
B.Sc. Students of Odd Semesters"**

*Wednesday 18<sup>th</sup> September 2019*

# REPORT

**Dr. V. D. Nanoty**  
Principal  
**Dr. R. L. Rahtgaonkar**  
IQAC Coordinator

**Mr. S. R. Jaiswal**  
Coordinator  
(Mob: 8806070156)

**Mr. P. P. Gedam**  
Member  
**Dr. R. M. Agrawal**  
Member

# Report of Online test

**Department of physics**, Shri R. L. T. College of Science, Akola has conducted an **online Physics MCQs test on mobile phones for the B.Sc. odd semesters students** on half portion of the syllabus dated **18<sup>th</sup> September 2019**. The main objective of the Online Physics MCQs Test is to develop the knowledge of Physics which helps the U.G. students in preparation for the IIT JAM, NET, GATE, and JEST examinations. The advantage of online exams is paperless, automatically checked answers, and reports, and perform analysis so it is a time-saving technique. A total of **201** students from all semesters participated in this event. Topper students each year gave the appreciation certificate at the hands of our college principal Dr. V. D. Nanoty in the presence of Dr. Bhoyar, guest lecturer of e-learning and e- classroom.



**Shri S. R. Jaiswal**  
Organizing Secretary  
Shri R. L. T. College o Science, Akola



**Dr. V. D. Nanoty**  
Principal  
Shri R. L. T. College o Science, Akola



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**Shri Radhakisan Laxminarayan Toshniwal  
College of Science, Akola**

NAAC Reaccredited Grade 'A' with CGPA 3.12

Recognized by Govt. of Maharashtra, Affiliated to Sant Gadge Baba Amravati University, Amravati

**Notice**

All the students of B.Sc. 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> year are hereby informed that the **Department of Physics** in collaboration with **Internal Quality Assurance Cell (IQAC)** will arrange **Online Physics MCQ's test on mobile phones** on half portion of the syllabus of odd semesters. All the students should present positively at the digital classroom on dated **18<sup>th</sup> September 2019** of their respective lecturer's timing with their mobile phones. Those students, who will achieve the most mark, will be given appreciation certificates.

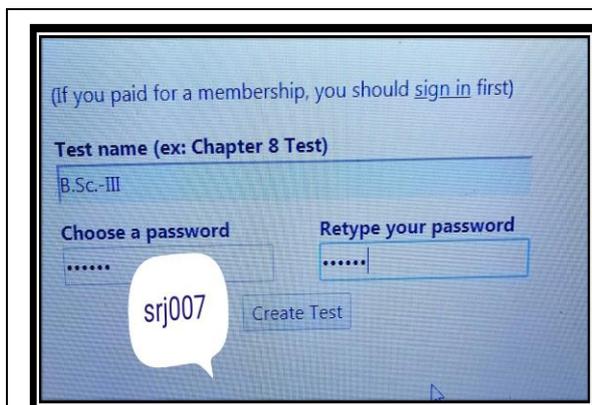
Thank you.

**Shri S. R. Jaiswal**  
Organizing Secretary  
Shri R. L. T. College o Science, Akola

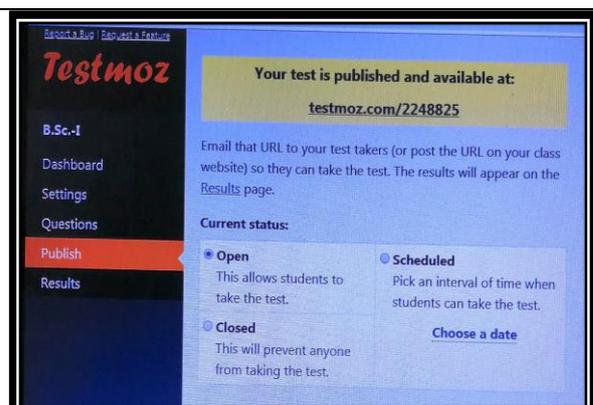


**Dr. V. D. Nanoty**  
Principal  
Shri R. L. T. College o Science, Akola

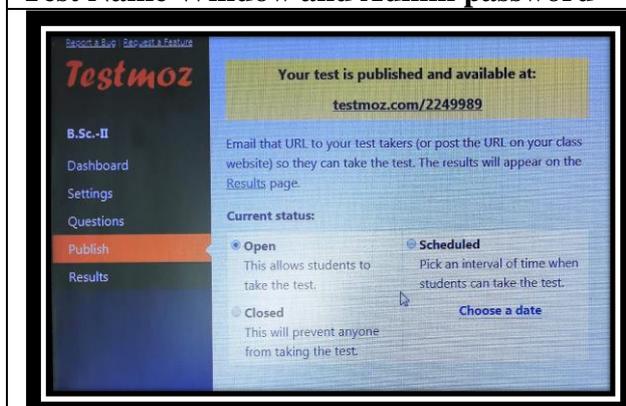
## Photo Gallery



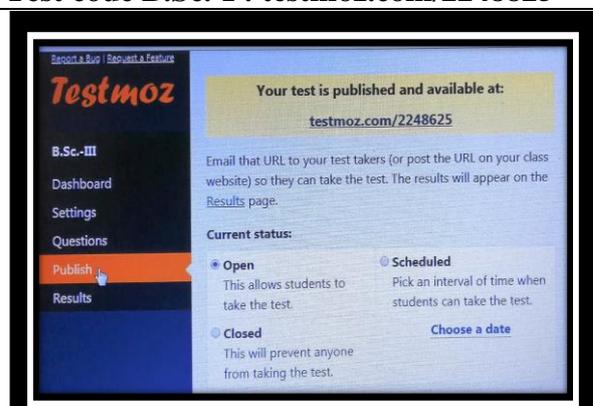
Test Name Window and Admin password



Test code B.Sc.-I : [testmoz.com/2248825](https://testmoz.com/2248825)



Test code B.Sc.-II : [testmoz.com/2249989](https://testmoz.com/2249989)



Test code B.Sc.-III : [testmoz.com/2248625](https://testmoz.com/2248625)



B.Sc.-I year students solve tests on mobile



B.Sc.-II year students solve tests on mobile



**B.Sc.-III year students solve tests on mobile  
I year students solve tests on mobile**



**Selected topper students  
Guest lecturer of e-Pathshala Dr. Bhojar**



**Felicitation of students  
Felicitation of students**



**Felicitation of students  
Prize announcement**



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**CO-CURRICULAR ACTIVITY**

Online MCQ's Test on half portion of syllabus

**CERTIFICATE OF APPRECIATION**

This is certified that Mr./Miss.....of B.Sc:- .....

has actively participated in online MCQ's test & secured .....rank. The test organized  
by Department of Physics, Shri R.L. T. College of Science, Akola on 18<sup>th</sup> September 2019.

Mr. S. R. jaiswal  
Coordinator

Mr. P. P. Gedam      Dr. R. M. Agrawal  
Member

Dr. V. D. Nanoty  
H.O.D./Principal

# B.Sc.-I

1. The acceleration due to gravity is ..... at the center of the earth (2 points)
- zero
  - infinity
  - 1
  - none of the above
2. Linear momentum is a ..... quantity (2 points)
- scalar
  - vector
  - tensor
  - none of these
3. Moment of inertia is (2 points)
- scalar
  - vector
  - tensor
  - none of these
4. The gravitation potential due to spherical shell at a point inside it is (2 points)
- less than that on its surface
  - greater than on its surface
  - same as that on its surface
  - none of these
5. The SI unit of gravitational constant is (2 points)
- $\text{Nm}^2\text{kg}^2$
  - $\text{Nm}^2\text{kg}^{-2}$
  - $\text{Nm}^{-2}\text{kg}^2$
  - $\text{N}^2\text{m}^2\text{kg}^2$

6. SI unit of angular momentum is ..... (2 points)

- kg.m<sup>2</sup>/s
- Kg.m
- Kg.cm<sup>2</sup>
- gm.cm/s

7. The intensity of gravitational field of the earth is maximum at ..... (2 points)

- center of earth
- equator
- poles
- same every where

8. Force keeping the planet in elliptical orbit is (2 points)

- Electrostatic force
- Nuclear force
- Gravitational force
- Magnetic force

9. The center of mass of a system shall be (2 points)

- at the center of the system
- outside the system
- inside the system
- inside or outside the system

10. The moment of momentum is called (2 points)

- couple
- torque
- impulse
- angular momentum

11. The moment of inertia of a wheel about its axle does not depend upon its (2 points)

- diameter
- mass
- distribution of mass
- speed of rotation

12. Moment of disc about an axis perpendicular to its plane and passing through its center is (2 points)

- $MR^2$
- $MR^2/2$
- $3/2MR^2$
- $2/5MR^2$

13. With increase in altitude, the volume of 'g' (2 points)

- increase
- decreases
- remain constant
- none of the above

14. Gravitational potential is a ..... quantity (2 points)

- scalar
- vector
- tensor
- none of these

15. S.I unit of moment of inertia is (2 points)

- $\text{kg.m/s}^2$
- $\text{Kg.m}^2$
- $\text{Kg.cm}^2$
- $\text{gm.cm}^2$

16. Kepler's first law is about (2 points)

- Elliptical orbit
- period
- area
- volume

17. The value of 'g' is ..... at equator (2 points)

- maximum
- minimum
- zero
- infinity

18. Kepler's ..... law is known as law of areal velocity (2 points)

- first
- second
- third
- none of the above

19. Kepler's third law is known as (2 points)

- law of elliptical orbit
- law of period
- law of areal velocity
- none of the above

20. Generally the mass of a fly wheel is concentrated on its rim (2 points)

- to increase moment of inertia
- to decrease moment of inertia
- to obtain stable equilibrium
- to obtain strong wheel

**Shri R. L. T. College of Science, Akola**  
**Department of Physics**  
**Co-Curricular Activity**  
**Online MCQs Test on Mobile Phones**  
**Test Results of B.Sc.-I**  
**18-09-2019**

Sr. No.	Name	Start Datetime	Percent	Points Earned	Points Possible
1	Aditya p1	2019-09-18 03:17:55-07:00	80	32	40
2	aishwarya ashok tayade p1	2019-09-18 03:08:50-07:00	25	10	40
3	Aishwarya Pathak (P1)	2019-09-18 02:56:30-07:00	80	32	40
4	Aishwarya sanjaysingh Rajput	2019-09-18 03:01:55-07:00	50	20	40
5	Amar khandare p1	2019-09-18 03:13:42-07:00	25	10	40
6	Ankita Umesh Gote	2019-09-18 02:55:30-07:00	30	12	40
7	Apurva pralhad thakare	2019-09-18 03:10:53-07:00	25	10	40
8	Ashwini purushottam mavalkar	2019-09-18 03:07:14-07:00	50	20	40
9	Asmita Pradip khandare	2019-09-18 03:02:38-07:00	75	30	40
10	Atharva sanjay Patharkar (p2)	2019-09-18 03:10:45-07:00	80	32	40
11	bhumika santosh thakare	2019-09-18 02:55:39-07:00	55	22	40
12	Damini ganesh wankhade (P1	2019-09-18 02:56:23-07:00	50	20	40
13	Diksha Pramod Londe	2019-09-18 02:54:59-07:00	30	12	40
14	Gauri Subhash shegokar p4	2019-09-18 02:59:01-07:00	40	16	40
15	Gauri sunil khadse p4	2019-09-18 03:03:56-07:00	50	20	40
16	Harahada anil bhusari	2019-09-18 03:06:15-07:00	45	18	40
17	Jayashri Gajanan Wasatkar	2019-09-18 03:14:26-07:00	50	20	40
18	Kajal madhukar kale	2019-09-18 02:58:56-07:00	55	22	40
19	Mandar kalley	2019-09-18 03:16:00-07:00	90	36	40
20	Mansi chausalkar	2019-09-18 03:15:38-07:00	70	28	40
21	Mayuri mahadeo ambedkar p1	2019-09-18 03:13:19-07:00	50	20	40
22	Mohit Suresh Ambuskar	2019-09-18 02:55:28-07:00	40	16	40
23	Mohit Suresh Ambuskar	2019-09-18 03:01:59-07:00	50	20	40
24	Nilesh Ramesh shirsat	2019-09-18 03:09:12-07:00	70	28	40
25	Niranjana Santosh Chokte	2019-09-18 03:10:58-07:00	65	26	40
26	P1	2019-09-18 03:02:19-07:00	50	20	40
27	P1	2019-09-18 03:05:05-07:00	60	24	40
28	P1 Aditya Wahurwagh	2019-09-18 03:10:57-07:00	45	18	40
29	P1 Aishwarya Dilip Waskar	2019-09-18 02:57:44-07:00	75	30	40
30	P1 Kunal Khandare	2019-09-18 03:05:51-07:00	40	16	40
31	P1 Pragati Lakshman Mhasal	2019-09-18 02:57:54-07:00	65	26	40
32	P1 Pragati Lakshman Mhasal	2019-09-18 03:14:43-07:00	90	36	40
33	P1 Pranoti vijay mahalle	2019-09-18 02:56:57-07:00	60	24	40
34	P1 pranoti Vijaya mahalle	2019-09-18 03:14:16-07:00	85	34	40
35	P1 Safwan R Khan	2019-09-18 02:55:35-07:00	40	16	40
36	P1 Shivam R Mankar	2019-09-18 03:11:18-07:00	45	18	40
37	P2 Ajay S Wankhade	2019-09-18 03:19:22-07:00	100	40	40
38	P2 Ajay Wankhade	2019-09-18 02:54:52-07:00	75	30	40
39	P2 jaya mirani	2019-09-18 02:56:08-07:00	90	36	40
40	P2 Neha suresh Chandan	2019-09-18 02:56:44-07:00	65	26	40
41	P2 Pranjali Rajesh Wahurwagh	2019-09-18 02:56:40-07:00	50	20	40

42	P2 sakshi valesha	2019-09-18 02:56:13-07:00	85	34	40
43	P3 Ankit Ulhas Ingle	2019-09-18 02:55:04-07:00	50	20	40
44	P3 Apoorva Harshadkumar Damo	2019-09-18 02:55:24-07:00	60	24	40
45	P3 Nikhil anil kute.	2019-09-18 02:55:14-07:00	65	26	40
46	P3 Radhika Gopal Malokar	2019-09-18 02:58:11-07:00	90	36	40
47	P3 Tanaya Apurva	2019-09-18 02:55:00-07:00	50	20	40
48	P3 Tejas Patange	2019-09-18 02:55:49-07:00	60	24	40
49	P3 Tejas Patange	2019-09-18 03:10:01-07:00	85	34	40
50	P3ARATI BALU GHATE	2019-09-18 02:57:34-07:00	90	36	40
51	P4 Kalyani Ramesh pakadhane	2019-09-18 02:57:08-07:00	70	28	40
52	P4 kavita rajendra ingole	2019-09-18 02:59:02-07:00	45	18	40
53	P4 Pooja Diliprao Hatgaonkar	2019-09-18 02:56:26-07:00	80	32	40
54	P4 Prerana Subash more	2019-09-18 02:56:45-07:00	50	20	40
55	P4 Priya Vishnu kshirsagar	2019-09-18 03:18:31-07:00	75	30	40
56	P4 Revati kishor gawande	2019-09-18 02:56:29-07:00	55	22	40
57	P4 sanjana Sunil kamle	2019-09-18 03:09:05-07:00	25	10	40
58	P4 srushti amol wahurwagh	2019-09-18 02:56:49-07:00	25	10	40
59	P4 vaishnavi pandhari chavhan	2019-09-18 03:04:23-07:00	90	36	40
60	P4 Vaishnavi Prakash Dange	2019-09-18 02:55:28-07:00	80	32	40
61	P4 vaishnavi Rahul Shegaonkar	2019-09-18 03:18:25-07:00	65	26	40
62	P4-ankita	2019-09-18 03:18:57-07:00	55	22	40
63	P4-Arpita Jadhao	2019-09-18 03:18:36-07:00	75	30	40
64	P4rohini devidas chavan	2019-09-18 02:57:26-07:00	70	28	40
65	P6 Pratiksha virtual pohokar	2019-09-18 03:03:48-07:00	65	26	40
66	P6 Sakshi Dilip Nanda	2019-09-18 02:54:39-07:00	75	30	40
67	P6 Samiksha Rajan Sharma	2019-09-18 02:55:50-07:00	80	32	40
68	Pragati anandrao janjal p4	2019-09-18 03:06:06-07:00	40	16	40
69	Prajakta .p.kale.(p4)	2019-09-18 02:55:41-07:00	75	30	40
70	Prajwal Premanand Gangane	2019-09-18 02:55:31-07:00	55	22	40
71	Pranay kamble	2019-09-18 03:08:47-07:00	45	18	40
72	Pratiksha Dnyaneshwar Chiliwant	2019-09-18 02:56:14-07:00	65	26	40
73	Priyanka Namdeo Sirsat	2019-09-18 03:07:42-07:00	75	30	40
74	Priyanka Narendra khete(p3)	2019-09-18 03:03:04-07:00	55	22	40
75	puja gajanan podhade	2019-09-18 02:55:28-07:00	65	26	40
76	Radhika Rajote	2019-09-18 03:01:19-07:00	85	34	40
77	Ragini sanjay khandare	2019-09-18 03:16:03-07:00	60	24	40
78	Rani subhash zarkhande	2019-09-18 02:57:39-07:00	45	18	40
79	Rasika Rajesh tihile	2019-09-18 03:02:05-07:00	35	14	40
80	Ritika	2019-09-18 03:10:24-07:00	95	38	40
81	Ritika wankhade	2019-09-18 02:55:05-07:00	75	30	40
82	Rutwik Rajendra Katekar	2019-09-18 02:55:53-07:00	60	24	40
83	Sakshi anandrao tale	2019-09-18 03:17:35-07:00	95	38	40
84	Sakshi ananta tale	2019-09-18 02:56:35-07:00	70	28	40
85	Sanket nagre	2019-09-18 02:55:30-07:00	45	18	40
86	Shivani Kishor Gosavi	2019-09-18 02:56:18-07:00	50	20	40
87	Shraddha chandravachan kharat	2019-09-18 02:55:20-07:00	25	10	40
88	shrutika deshpane	2019-09-18 03:07:39-07:00	40	16	40
89	Sneha Gautam Chatse	2019-09-18 03:04:17-07:00	50	20	40
90	Sonali ramesh godwe	2019-09-18 02:56:29-07:00	85	34	40
91	soniya pramodkumar jangid	2019-09-18 02:55:41-07:00	50	20	40

92	Swapnil Londe	2019-09-18 02:55:11-07:00	40	16	40
93	Utkarsh sule	2019-09-18 03:10:59-07:00	85	34	40
94	Vaishnavi purushottam khanapu	2019-09-18 03:09:21-07:00	60	24	40
95	vaishnavi gajanan mahalle p1	2019-09-18 03:12:17-07:00	45	18	40
96	Vaishnavi puri	2019-09-18 03:04:36-07:00	35	14	40
97	vaishnavi sanjay tekade.	2019-09-18 02:55:24-07:00	40	16	40
98	Vaishnavi sureshprasad dubey (p4	2019-09-18 02:56:20-07:00	65	26	40
99	Vidhi Ashok kotak	2019-09-18 03:05:35-07:00	65	26	40
100	Yash Jayale	2019-09-18 02:55:10-07:00	40	16	40

## B.Sc.-II

1. when the vector field  $\vec{f}$  diverges at the point of consideration then  $\text{div } \vec{f}$  is (2 points)
  - positive
  - negative
  - zero
  - none of these
2. The value of flux of electric field is (2 points)
  - positive
  - Negative
  - Zero
  - All of these
3. The displacement current is due to (2 points)
  - steady electric flux
  - changing electric flux
  - flow of steady current
  - changing magnetic
4. SI unit of pointing vector is (2 points)
  - Joule/Sec
  - Joule /Sec. metre<sup>2</sup>
  - Joule/ metre<sup>2</sup>
  - all of these
5. Divergence of vector function  $\vec{f}$  is written as (2 points)
  - $\nabla_x \vec{f}$
  - $\nabla \cdot \vec{f}$
  - $\nabla f$
  - none of these

6. The curl of vector function is zero then that vector function is said to be, (2 points)
- Irrotational
  - solenoidal
  - Linear
  - none of these
7. Stationary electric charges produced (2 points)
- Static magnetic field
  - Electrostatic field
  - Lorentze field
  - All of these
8. . An electromagnetic wave propagating in a medium then the quantity  $\sqrt{\mu/\epsilon}$  is (2 points)  
the
- energy density
  - pointing vector
  - characteristic impedance of medium
  - R.I of medium
9. The direction of propagation of electromagnetic wave is given by (2 points)
- vector  $\vec{H}$
  - vector  $\vec{E}$
  - vector  $\vec{E} \times \vec{H}$
  - vector  $\vec{B}$
10. Magnitude of magnetic field inside the solenoid is depend on (2 points)
- length of solenoid
  - no. of turns of wire in solenoid
  - radius of coil
  - all of these

11. Electric flux is a (2 points)

- Vector quantity
- Tensor quantity
- Scalar quantity
- None of these

12. The direction of induced e.m.f. is given by (2 points)

- Faradays law
- Lenz's law
- Fleming left hand rule
- none of these

13.  $\nabla \times \vec{H} = \vec{J} + (\partial D / \partial t) \vec{e}_z$  represents (2 points)

- Coulombs law
- Faradays law
- Amperes law
- Gauss's law

14. The ..... current is not involved in the actual transport of charge. (2 points)

- Conduction current
- Displacement current
- Convection current
- All of these

15. If the div of vector function is zero then the vector function is said to be (2 points)

- irrotational
- solenoidal
- linear
- none of these

16. Divergence of a vector quantity is (2 points)

- Vector quantity
- scalar quantity
- zero
- constant quantity

17. Maxwells equation  $\text{div } \vec{B} = 0$  based on (2 points)

- Gauss's law in electrostatic
- Gauss's law in magneto static
- Faradays law
- Amperes law

18. the velocity of electromagnetic wave in dialectic medium having permittivity  $\epsilon$  and permeability  $\mu$  is (2 points)

- $\sqrt{\mu/\epsilon}$
- $\sqrt{\epsilon/\mu}$
- $1/\sqrt{\epsilon\mu}$
- $\sqrt{\epsilon\mu}$

19. The electric field lines making an angle  $120^\circ$  with the area vector then flux pass though surface is (2 points)

- positive
- Negative
- zero
- constant

20.  $\nabla \times \vec{E} = -\partial B/\partial t$  represent (2 points)

- Coulombs law
- Faradays law
- Amperes law
- Gauss law

**Shri R. L. T. College of Science, Akola**  
**Department of Physics**  
**Co-Curricular Activity**  
**Online MCQs Test on Mobile Phones**  
**Test Results of B.Sc.-II**  
**18-09-2019**

Sr. No.	Name	Start Datetime	Percent	Points Earned	Points Possible
1	(p2) Vrushali Surendra ingle	2019-09-17 23:13:14-07:00	50	20	40
2	(P2)Pooja hadmanaram jaat	2019-09-17 23:10:45-07:00	45	18	40
3	(p4) pragati jaydrath kankal	2019-09-17 23:40:08-07:00	60	24	40
4	Arati p.gole (P3)	2019-09-17 23:31:35-07:00	60	24	40
5	Komal gawai	2019-09-17 23:29:43-07:00	30	12	40
6	Komal gawai	2019-09-17 23:35:09-07:00	40	16	40
7	Manthan likhar p3	2019-09-17 23:10:50-07:00	30	12	40
8	Mukta	2019-09-17 23:25:09-07:00	65	26	40
9	Mukta Mangalsingh Charawande	2019-09-17 23:09:55-07:00	25	10	40
10	Mukta Mangalsingh Charawande	2019-09-17 23:18:03-07:00	25	10	40
11	Mukta Mangalsingh Charawande	2019-09-17 23:23:28-07:00	60	24	40
12	P1	2019-09-18 23:54:22-07:00	70	28	40
13	P1 prashant rathi	2019-09-17 23:31:18-07:00	80	32	40
14	P2 Pallavi prakash devar	2019-09-17 23:12:06-07:00	45	18	40
15	P2 Akshay Kailas Ingle	2019-09-17 23:17:35-07:00	35	14	40
16	P2 Hrutuja Pramod Dhore	2019-09-17 23:10:45-07:00	40	16	40
17	P2 Sanjana Murlidhar mundada	2019-09-17 23:11:26-07:00	45	18	40
18	p2 triveni	2019-09-18 09:52:57-07:00	60	24	40
19	P2 Triveni P. Wankhade	2019-09-17 23:12:11-07:00	50	20	40
20	P3 Pranay Tiwari	2019-09-17 23:11:06-07:00	35	14	40
21	P4 Arti Gayki	2019-09-17 23:10:57-07:00	60	24	40
22	P4 Nisha vishvas amravtikar	2019-09-17 23:34:50-07:00	25	10	40
23	P4 samiksha ujaval thakre	2019-09-17 23:10:59-07:00	35	14	40
24	P4 Vaishali K Joshi	2019-09-17 23:11:15-07:00	25	10	40
25	p4 Vaishnavi manoharrao nimbalkar	2019-09-17 23:10:46-07:00	15	6	40
26	P5 Sagar chechare	2019-09-17 23:11:14-07:00	40	16	40
27	P6 Dhanashree Anil Barshe	2019-09-17 23:32:07-07:00	70	28	40
28	P6-Vaishnavi Devendra Metange.	2019-09-17 23:29:16-07:00	45	18	40
29	Pawan mohod	2019-09-17 23:21:36-07:00	20	8	40
30	Prem Khanderao P5	2019-09-17 23:10:45-07:00	25	10	40
31	Riya Bhongade (P2)	2019-09-17 23:12:44-07:00	60	24	40
32	Vaibhav wadekar	2019-09-17 23:26:23-07:00	70	28	40
33	Vicky sonone	2019-09-17 23:31:07-07:00	35	14	40
34	Vikas	2019-09-17 23:26:32-07:00	35	14	40
35	Vikas sonone	2019-09-17 23:14:39-07:00	20	8	40
36	Vrushali Surendra Ingle	2019-09-18 02:31:30-07:00	80	32	40

## B.Sc.-III

1. De- Broglie wavelength of electron moving with velocity 1000 m/s is : (2 points)

- $\lambda = 72.85 \text{ \AA}$
- $\lambda = 7.285 \text{ \AA}$
- $\lambda = 7285 \text{ \AA}$
- $\lambda = 728.5 \text{ \AA}$

2. The maximum KE of effected electron is  $2.0745 \times 10^{-19} \text{ J}$ . Stopping potential of (2 points)

electron in electron volt :

- $V_0 = 1.715 \text{ eV}$
- $V_0 = 2.741 \text{ eV}$
- $V_0 = 3.241 \text{ eV}$
- $V_0 = 6.254 \text{ eV}$

3. Emission spectra are due to light emitted from: (2 points)

- An arc discharge
- a spark discharge
- a mercury Vapour lamp
- All of the above

4. X-ray tube operates with an accelerating voltage of 20 kV. What is the wavelength of maximum energy X-ray? (2 points)

- $6.215 \times 10^{-12} \text{ m}$
- $6.215 \times 10^{-11} \text{ m}$
- $6.215 \times 10^{-10} \text{ m}$
- $6.215 \times 10^{-13} \text{ m}$

5. Raman Effect supports (2 points)

- Corpuscular theory

- Wave theory
- Quantum theory
- Electromagnetic theory

6. The wavelength  $\lambda$  associated with a particle of mass  $m$  moving with velocity  $v$  (2 points) is given by

- $\lambda = h/ mv$
- $\lambda = mv / h$
- $\lambda = hv/ m$
- $\lambda = m/ hv$

7. The maximum kinetic energy of photoelectrons in the photoelectric effect (2 points)

- Change with intensity of light
- Change with frequency of light
- Change with velocity of light
- None of the above.

8. If uncertainty in the position of an electron is  $4 \times 10^{-10}$  m, the uncertainty (2 points)

in its momentum :

- $1.65 \times 10^{-24}$  Kgm/s
- $1.65 \times 10^{-24}$  Kgm/s
- $2.35 \times 10^{-24}$  Kgm/s
- $9.53 \times 10^{-24}$  Kgm/s

9. When an electron shifts to an inner shell, it: (2 points)

- Absorbs photon
- Emits a photon
- Emits a positron
- Absorbs a positron

10. The radiation consists of bundles or packets of energy called as (2 points)

- Photons
- Phonons
- Corpuscles
- None of these.

11. The relation between frequency, wavelength and velocity of light is: (2 points)

- $C = \lambda/v$
- $C = v/\lambda$
- $\lambda = C/v$
- $\lambda = v/C$

12. The orbital quantum number determines (2 points)

- Size of electron orbit
- Shape of electron orbit
- Orientation of the orbit
- Spin of electron

13. Sun appears red at sun rise and sunset. This is due to scattering of (2 points)

- Longer wavelengths
- Shorter wavelengths
- Lower frequencies
- all frequencies

14. In an experiment in the study of Raman effect, using mercury green radiation (2 points)

of  $\nu = 1.8312 \times 10^6$  Hz, a stoke's line of frequency  $1.8041 \times 10^6$  Hz was observed. What is the Raman Shift? ( $C = 3 \times 10^8$  m/s)

- $831 \times 10^{12}$  Hz
- $831 \times 10^{11}$  Hz
- $831 \times 10^{10}$  Hz
- $831 \times 10^9$  Hz

15. Which of the following is known as the Planck's equation? (2 points)

- $E = h\nu$
- $E = m.c^2$
- $H\psi = E\psi$
- $\lambda = h/p$

16. The number of electrons in a shell is limited to (2 points)

- $2n^2$
- $n^2$
- Both (a) and (b)
- None of these.

17. Protons attract electrons. Then why do electrons not fall on the nucleus? (2 points)

- Neutrons repel the electrons
- Electrons in ground state cannot radiate energy
- At very small distances, protons repel electrons
- Inner electrons repel those in outer orbitals

18. The radius of first Bohr orbit in hydrogen atom is  $0.53 \text{ \AA}$ , the wavelength of (2 points)

electron travelling along the first Bohr orbit is:

- $\lambda = 3.3 \text{ \AA}$
- $\lambda = 22 \text{ \AA}$
- $\lambda = 25 \text{ \AA}$
- $\lambda = 3.55 \text{ \AA}$

19. The quantum mechanics deals with the study of motion of (2 points)

- Macroscopic particle
- Microscopic Particle
- Both (a) and (b)
- None of these.

20. In Raman spectrum, if  $\lambda$  is the wavelength of incident radiation, then the Stoke's lines will have wavelength equal to (2 points)

- $\lambda$
- $\lambda + \Delta\lambda$
- $\lambda - \Delta\lambda$
- $\lambda^2$

**Shri R. L. T. College of Science, Akola**  
**Department of Physics**  
**Co-Curricular Activity**  
**Online MCQs Test on Mobile Phones**  
**Test Results of B.Sc.-III**  
**18-09-2019**

Sr. No.	Name	Start Datetime	Percent	Points Earned	Points Possible
1	Rohit Awadhut	2019-09-18 14:39:38+05:30	90	36	40
2	P4 shantanu suryakant wankhade	2019-09-18 14:37:37+05:30	80	32	40
3	Prachi anil ingle(p4)	2019-09-18 14:55:52+05:30	80	32	40
4	Ajinkya Deshmukh	2019-09-18 14:37:50+05:30	75	30	40
5	P4 Samruddhi Mulay	2019-09-18 14:41:31+05:30	75	30	40
6	P4(Nikhil Chakranarayan)	2019-09-18 14:36:08+05:30	75	30	40
7	Vaishnavi warhade	2019-09-18 14:48:53+05:30	75	30	40
8	Janhavi Dolas	2019-09-18 14:43:32+05:30	70	28	40
9	P2 Prachi Ubale	2019-09-18 14:35:54+05:30	70	28	40
10	P2 yashad prakash vyavhare	2019-09-18 14:41:28+05:30	70	28	40
11	p4 Anuraj Gajendarsingh Chauhan	2019-09-18 14:40:37+05:30	70	28	40
12	P4 Gauri anant Tayade	2019-09-18 14:38:40+05:30	70	28	40
13	P4 Mahendra prakash khanderao	2019-09-18 14:36:29+05:30	70	28	40
14	Isha Dipak Bhagwatkar	2019-09-18 14:37:24+05:30	65	26	40
15	P2 Perna Ghuikar	2019-09-18 14:54:47+05:30	65	26	40
16	P3 Aishwarya s. Tayade	2019-09-18 14:45:46+05:30	65	26	40
17	P4 Ku.trupti Sandip davhale	2019-09-18 14:36:48+05:30	65	26	40
18	P4 Madhavi S. Bondre	2019-09-18 14:37:47+05:30	65	26	40
19	P4 Nikita Bhaurao jane	2019-09-18 14:36:41+05:30	65	26	40
20	P4 Pallavi sharad ingole	2019-09-18 14:38:22+05:30	65	26	40
21	Bhagyashree Rajesh Saitwal	2019-09-18 14:41:03+05:30	60	24	40
22	Gayatri Gajanan pagrut	2019-09-18 14:38:17+05:30	60	24	40
23	Kalyanisangade	2019-09-18 14:47:08+05:30	60	24	40
24	P1 Prasad Joshi	2019-09-18 14:35:51+05:30	60	24	40
25	P2 Dnyaneshwari Gajanan Bhatkar.	2019-09-18 14:38:15+05:30	60	24	40
26	P4 Prajakta Kishor Masne	2019-09-18 14:37:05+05:30	60	24	40
27	P4 shrutinagoraokalmegh	2019-09-18 14:37:23+05:30	60	24	40
28	P4Aarteejoshi	2019-09-18 14:36:41+05:30	60	24	40
29	P4ranikhurania	2019-09-18 14:52:01+05:30	60	24	40
30	Ayeshamaa md Faiyaz Amdani	2019-09-18 14:41:15+05:30	55	22	40
31	Namrata.v.girhe	2019-09-18 14:42:05+05:30	55	22	40
32	P2 Shefali A Agrawal	2019-09-18 14:36:17+05:30	55	22	40
33	P3 Perna pasoriya	2019-09-18 14:37:05+05:30	55	22	40
34	p4 Anil Gulabrao Sardar	2019-09-18 14:36:31+05:30	55	22	40
35	P4 Pallavi Bhashkar Janokar	2019-09-18 14:37:10+05:30	55	22	40
36	Vidya Arun kshirsagar	2019-09-18 14:55:12+05:30	55	22	40
37	Hitesh joshi	2019-09-18 14:51:20+05:30	50	20	40
38	Mahesh gawande	2019-09-18 14:50:34+05:30	50	20	40
39	P1 Vijaya wasudev pimple	2019-09-18 14:46:45+05:30	50	20	40
40	P4 Mayur ramesh jawake	2019-09-18 14:36:30+05:30	50	20	40
41	P4 Nikhil Ujjainkar	2019-09-18 15:03:32+05:30	50	20	40

42	P4 nikita pandurang dhurde	2019-09-18 14:43:58+05:30	50	20	40
43	P4 priyanka purushottam kathode	2019-09-18 14:38:22+05:30	50	20	40
44	P4 Rushikesh Ulhasrao Kharate	2019-09-18 14:37:56+05:30	50	20	40
45	P4 vaishnavi Ananta umarkar	2019-09-18 14:38:31+05:30	50	20	40
46	P4 Yogita Dnyaneshwar Shelke	2019-09-18 14:36:30+05:30	50	20	40
47	P6 Nikhil P Mankar	2019-09-18 14:43:37+05:30	50	20	40
48	Pratiksha golam	2019-09-18 14:41:55+05:30	50	20	40
49	Rutuja Saraf	2019-09-18 14:43:19+05:30	50	20	40
50	(p4)shivam vilasrao mate	2019-09-18 14:36:14+05:30	45	18	40
51	P1 Komal Nagesh Shegokar	2019-09-18 14:47:26+05:30	45	18	40
52	P2 Sourabh sanjay swami	2019-09-18 14:41:38+05:30	45	18	40
53	p4 yogesh sapkal	2019-09-18 14:41:18+05:30	45	18	40
54	P5 Mayur Ganesh Kangate	2019-09-18 14:37:24+05:30	45	18	40
55	P6 Anuja M Ingle	2019-09-18 14:53:47+05:30	45	18	40
56	P6 Rupali V Idhol	2019-09-18 14:39:16+05:30	45	18	40
57	Pragati Prakash kasurkar	2019-09-18 14:56:41+05:30	45	18	40
58	Shubhangi Dhore	2019-09-18 14:44:20+05:30	45	18	40
59	P1 Kalyani Mahendra Pande	2019-09-18 14:40:29+05:30	40	16	40
60	P3 Simran Gadodiya	2019-09-18 14:40:46+05:30	40	16	40
61	P3 Sonal Deokate	2019-09-18 14:40:38+05:30	40	16	40
62	P4 Yash santosh korpe	2019-09-18 14:36:18+05:30	40	16	40
63	P4(Pawan Vinayak Band)	2019-09-18 14:45:08+05:30	40	16	40
64	Pradip jagan kalbande	2019-09-18 14:42:47+05:30	40	16	40
65	Monal bhoje (p4)	2019-09-18 14:42:15+05:30	35	14	40
66	p2 komal khond	2019-09-18 14:41:38+05:30	35	14	40
67	P3 Harinarayan Manohar Mangle	2019-09-18 14:37:25+05:30	35	14	40
68	P3 Shivani patil	2019-09-18 14:47:46+05:30	35	14	40
69	P4 Damini Subhashrao gorave	2019-09-18 14:44:13+05:30	35	14	40
70	P5 komal varma	2019-09-18 14:41:03+05:30	35	14	40
71	Pratiksha vilas banole	2019-09-18 14:53:17+05:30	35	14	40
72	Vaishnavi Pralhad Akhare P4	2019-09-18 14:46:53+05:30	35	14	40
73	Nikita sudhakar Thakare	2019-09-18 14:43:48+05:30	30	12	40
74	P4 Dnyaneshwar Pariyal	2019-09-18 14:36:08+05:30	30	12	40
75	Pratiksha vilas banole	2019-09-18 14:52:18+05:30	30	12	40
76	Priyanka D.Naitam	2019-09-18 14:44:50+05:30	30	12	40
77	Anup.A.Raut	2019-09-18 14:36:47+05:30	20	8	40
78	Shubhangi Dilip Matre	2019-09-18 14:45:42+05:30	20	8	40