"Dissemination of Education for Knowledge, Science and Culture"

- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur

(Autonomous).

Department of Physics

Value Added Course

on

Basic Instrumentation in Physics

1st August 2018

to

30 October 2018

Course Duration : 3 Months

Course Coordinator	Head	Principal
Dr. G. J. Navathe	Dr. M. M. Karanjkar	Dr. S. Y. Hongekar

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-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College (Autonomous), Kolhapur.

Notice

All the B.Sc/ B.Com. / B. A. (I, II and III) students are here by informed that department of Physics is organizing **Add On** course entitled ***"Basic Instrumentation Course."*** The duration of this course will be of 90 days. Interested students should register their name in the department of Physics on or before **16 July 2018 (Time 10:30 am to 4:30 pm)**. The time table of the course will be displayed on notice board soon.

Note: Fee for the course: 500/- per student

for **Head, Department of Physics**

PRINCIPAL
Vivekanand College
Kolhapur

Principal

"Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College (Autonomous), Kolhapur.
Department of Physics (2018-19)

Syllabus for Add On Course

(Basic Instrumentation Course)

Unit: I

Least Count of Instruments:

Vernier caliper, Micrometer screw gauge, Sperometer, Meter scale, Spectrometer, Travelling microscope, Optical bench, Volt meter, Current meter, Galvanometer

Unit: II

Study of Instruments:

Traveling microscope, Spectrometer, Optical bench, Ballistic Galvanometer, Sextant instrument, Telescope,

Unit: III

Study of electronics and electricity:

Use of multimeter, Testing of Components, Use of CRO, Use of Audio frequency generator, To check the fuse, Continuity of wire

Unit: IV

Field Visit

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Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College (Autonomous), Kolhapur.

BASIC INSTRUMENTATION COURSE IN PHYSICS

Name List

Sr. No.	Name of the student	Roll no.	Mobile No.	Fee	Sign
1	Mr. Chile Aniket N.	10001	7304728359	500	
2	Miss. Chougule Ankita J.	10002	7875630725	500	
3	Miss. Karale Prajakta M.	10003	7350130213	500	
4	Miss. Ghulanwarkar Pooja L.	10004	8805676137	500	
5	Miss. Patil Sanyogita S.	10005	7775852671	500	
6	Miss. Chougule Priyanka M.	10006	7447345498	500	
7	Miss. Nirmalkar Mayuri C.	10007	8888445162	500	
8	Miss. Nadaf Anisa A.	10008	9657991926	500	
9	Miss. Kumbhar Aishwarya S.	10009	9130589236	500	
10	Miss. Mohite Shamal V.	10010	8308587851	500	SVM
11	Mr. Patil Pratik R.	10011	8888752121	500	PRP
12	Miss. Patil Sheral S.	10012	8975868730	500	SSP
13	Miss. Musale Tejasvini T.	10013	8830035093	500	
14	Mr. Wadeyar Anirudha K.	10014	7448225966	500	
15	Mr. Kumbhar Swarup S.	10015	7709881996	500	
16	Mr. Yadhav Vaibhav V.	10016	9975625383	500	
17	Miss. Digraje Ankita R.	10017	8308480080	500	
18	Miss. More Aishwarya A.	10018	8999076570	500	
19	Mr. Gulavni Prasad R.	10019	91308217017	500	PRG
20	Miss. Powar Mayuri P.	10020	7264006404	500	MPP
21	Miss. Bendke Mukta V.	10021	7447800400	500	
22	Mr. Patil Omkar I.	10022	7887925545	500	
23	Mr. Chavan Ramchandra A.	10023	8552012837	500	
24	Miss. Patil Snehal V.	10024	8605992259	500	Snehal
25	Mr. Bhatale Sachin S.	10025	7038935539	500	Sachin
26	Miss. Patil Samrudhi Y.	10026	9420263433	500	
27	Miss. Londhe Pradnya A.	10027	9545946235	500	
28	Mr. Patil Satish S.	10028	7709760257	500	
29	Mr. Patil Sourabh S.	10029	7038821198	500	
30	Mr. Mote Ramesh A.	10030	7767803282	500	Ramesh
31	Mr. Ustad Ruhan E.	10031	9156755880	500	Ruhan
32	Miss. Suryawanshi Smital J.	10032	9766755495	500	
33	Mr. Kesarkar Vinayak B.	10033	9764410395	500	
34	Miss. Desai Ashwini A.	10034	9130186961	500	Ashwini
35	Miss. Kamble Shivani S.	10035	9067758949	500	
36	Miss. Kanade Priyanka S.	10036	9370649886	500	
37	Miss. Patil Shivani D.	10037	8806695144	500	
38	Miss. Shinde Manasi L.	10038	7420087778	500	MShinde
39	Miss. Shinde Manisha A.	10039	9923848709	500	MAS

40	Mr. Chodankar Shubham N.	10040	9665432520	500	
41	Mr. Patil Pramod D.	10041	9922757858	500	
42	Miss. Patil Rutuja B.	10042	7447286901	500	
43	Mr. Jangam Shivkrupa P.	10043	9325797142	500	
44	Mr. Sonkamble Rohan R.	10044	9422280300	500	
45	Mr. Kamble Ashish S.	10045	7030893630	500	
46	Mr. Nerelkar Somesh K.	10046	7057929914	500	
47	Miss.Ramsing Bhagyashri s	10047	9975251422	500	

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Department of Physics
Add On Course (2018-2019)

Sr No	Name of the student	06/08	07/08	13/08	14/08	20/08	21/08	27/08	28/08	03/09	04/09	10/09	11/09	17/09	24/09	25/09
1	Mr. Chile Aniket N.	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC
2	Miss. Chougule Ankita J.	ATC	ATC	ATC	A	ATC	ATC	ATC	A	ATC	ATC	ATC	ATC	A	ATC	ATC
3	Miss. Karale Prajakta M.	PMK	PMK	PMK	PMK	PMK	PMK	PMK	A	PMK	PMK	A	PMK	A	PMK	PMK
4	Miss. Ghulanwarkar Pooja L.	PLG	PLG	PLG	PLG	PLG	A	PLG	PLG	PLG	PLG	PLG	A	PLG	PLG	PLG
5	Miss. Patil Sanyogita S.	SPAU	SPAU	SPAU	SPAU	SPAU	SPAU	SPAU	A	SPAU	SPAU	SPAU	SPAU	SPAU	SPAU	SPAU
6	Miss. Chougule Priyanka M.	PMC	PMC	A	PMC	A	PMC	PMC	PMC	PMC	PMC	PMC	A	PMC	PMC	A
7	Miss. Nirmalkar Mayuri C.	MCN	MCN	MCN	MCN	MCN	MCN	A	MCN	MCN	A	MCN	MCN	MCN	MCN	MCN
8	Miss. Nadaf Anisa A.	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN	ANN
9	Miss. Kumbhar Aishwarya S.	SAK	SAK	SAK	SAK	SAK	A	SAK	SAK	SAK	SAK	A	SAK	A	SAK	SAK
10	Miss. Mohite Shamal V.	SVM	A	SVM	SVM	SVM	SVM	SVM	A	SVM	SVM	SVM	SVM	SVM	SVM	SVM
11	Mr. Patil Pratik R.	PRP	PRP	PRP	PRP	PRP	PRP	PRP	PRP	PRP	PRP	A	PRP	PRP	PRP	PRP
12	Miss. Patil Sheral S.	SSP	SSP	SSP	SSP	SSP	SSP	SSP	SSP	SSP	SSP	SSP	SSP	A	SSP	SSP
13	Miss. Musale Tejasvini T.	TTM	TTM	A	A	TTM	TTM	TTM	TTM	TTM	A	TTM	TTM	TTM	A	TTM
14	Mr. Wadeyar Anirudha K.	AKW	AKW	AKW	AKW	AKW	A	AKW	AKW	AKW	AKW	A	A	AKW	AKW	AKW
15	Mr. Kumbhar Swarup S.	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK	SSK
16	Mr. Yadhav Vaibhav V.	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY	VVY
17	Miss. Digraje Ankita R.	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD	ARD
18	Miss. More Aishwarya A.	AMOR	AMOR	AMOR	AMOR	A	AMOR	AMOR	AMOR	A	AMOR	AMOR	AMOR	AMOR	AMOR	AMOR
19	Mr. Gulavni Prasad R.	PRG	A	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG	PRG
20	Miss. Powar Mayuri P.	MPP	MPP	MPP	A	MPP	MPP	MPP	MPP	MPP	MPP	MPP	A	MPP	MPP	MPP
21	Miss. Bendke Mukta V.	MVB	A	MVB	MVB	MVB	MVB	MVB	MVB	MVB	MVB	A	MVB	MVB	MVB	MVB
22	Mr. Patil Omkar I.	OIP	OIP	OIP	OIP	A	OIP	OIP	OIP	OIP	OIP	A	OIP	OIP	OIP	A
23	Mr. Chavan Ramchandra A.	RA	RA	RA	A	RA	RA	A	RA	A	RA	RA	RA	A	RA	RA

VIVEKANAND COLLEGE KOLHAPUR
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Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College (Autonomous), Kolhapur.
Department of Physics
Add On Course (2018-2019)

Sr No	Name of the student	01/08	02/08	08/08	09/08	16/08	23/08	29/08	30/08	05/09	06/09	12/09	19/09	26/09	27/09	31/10
24	Miss. Patil Snehal V.															
25	Mr. Bhatale Sachin S.				A									A		
26	Miss. Patil Samrudhi Y.								A							A
27	Miss. Londhe Pradnya A.						A					A				
28	Mr. Patil Satish S.				A				A							
29	Mr. Patil Sourabh S.												A			
30	Mr. Mote Ramesh A.							A	A							
31	Mr. Ustad Ruhan E.				A							A				
32	Miss. Suryawanshi Smital J.					A										
33	Mr. Kesarkar Vinayak B.			A						A				A		
34	Miss. Desai Ashwini A.															
35	Miss. Kamble Shivani S.						A	A	A				A			
36	Miss. Kanade Priyanka S.						A		A			A				
37	Miss. Patil Shivani D.				A										A	
38	Miss. Shinde Manasi L.					A			A					A		
39	Miss. Shinde Manisha A.		A								A					A
40	Mr. Chodankar Shubham N.			A						A						
41	Mr. Patil Pramod D.						A						A			
42	Miss. Patil Rutuja B.															
43	Mr. Jangam Shivkrupa P.			A					A					A		
44	Mr. Sonkamble Rohan R.					A						A				
45	Mr. Kamble Ashish S.		A							A				A		
46	Mr. Nerelkar Somesh K.				A			A			A					
47	Miss.Ramsing Bhagyashri s			A				A		A			A			
	Mr. Abhijeet V. Shinde															
	Mr. I. M. Mulla															

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE
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Roll No.

"Education for Knowledge, Science and Culture"
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Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Physics

Add On Course Examination

Basic Instrumentation course in physics

Date: 19/02/2018 **Total Marks: 20**

Time:10:30 am to 11:30 am

Student's Name : ----------

Student's Sign : ----------

Jr. Supervisor Sign: ----------

Q.1) Select correct alternative **(20)**

1)By Newton's formula, if X_1 and X_2 are resp. the object and image distances from the respective focal points for an optical system then.....

a)$X_1X_2=f_1f_2$ b) $X_1/X_2=f_1/f_2$

c) $X_1X_2=f_1/f_2$ d) $X_1X_2=f_1f_2$

2) If the total force acting on a particle or system is zero, then ---- of the particle or system of particles is conserved.

a) linear momentum b) angular momentum

c) energy d)force

3) The maimum horizontal distance covered by a projectile is called the --------of the projectile

a) displacement b)range

c) flight d)trajectory

4) Rigid body consist of ---------- degrees of freedom

a) 3 b) 1 c) 6 d) 9

5) A rigid body in motion can be completely specified if its --------- and ---------- are given

a) position, orientation b)position , velocity

c) position , centre of mass d) orientation , centre of mass

6) The principle of work is expressed by the equation ----------

a) $\sum F_i.\delta r_i = 0$ b) $\sum F_i^{(a)}.\delta r_i = 0$

c) $\sum F_i.\delta v = 0$ d) $F_i.\delta r_i = 0$

7) A constraint is ---------- on the freedom of motion of a system of particles

a) restriction b)condition

c) information d) none of these

8) Hamilton's principle is ---------- principle

a) differential b) integral

c) an algebraic d) summation

9) The shortest distance between two points in a plane is along a ---------- passing through the two points

a) curve b) normal to plane

c) straight line d) circle

10) ---------- of a particle is same in the fixed and the rotating system

a) velocity b) linear acceleration

c) angular acceleration d) momentum

11) The frequency of antisymmetric mode is ---------- frequency of symmetric mode.

a) higher than b)lower than

c) lowest than d)zero

12)The trajectory of a particle entering an electric field in a direction perpendicular to $\vec{E}$ is ----------

a) straight line parallel to $\vec{E}$ b) parabola

c)hyperbola d)circle

13) If $\emptyset$ is scalar potential function then following equation represent Laplace's equation

a) $\nabla^2\emptyset = 0$ b) $\nabla^2\emptyset = \rho/\epsilon_0$ c) $\nabla\emptyset = 0$ d) $\nabla\emptyset = \rho/\epsilon_0$

14) Mathematical formulation of empirical laws in electricity and magnetism are known as --

a) Lagrangian's equations b) Maxwell's equations

c) Lorent'sz equations d) Newton's equations

15)The equation of continuity is in accordance with the law of conservation of ----------

a) energy b) momentum

c) charge d)angular momentum

16) Electric dipole moment per unit volume of polarized medium is called ---------

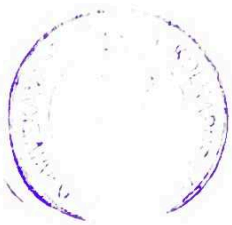
a) Displacement vector D b) Polarization vector P

c) Magnetization M d) Electric intensity vector E

17) According to Ampere's circuital law the line integral of magnetic induction B around closed path is equal to ---------- the total current I enclosed by the closed path.

a) twice b) μ_0 times

c) $\mu_0/2$ times d) $\mu_0/4$ times



18) The electromagnetic energy crossing unit area in unit time is called ---------

a) Poynting vector

b)polarization vector

c)energy density

d) current density

19) In electromagnetic fields ----------

a) total energy is conserved

b)total momentum is conserved

c) both a and b

d) neither a nor b

20) The trajectory of charged particle in a constant ,uniform magnetic field is --------

a) straight line

b) parabola

c)hyperbola

d)circle

14/20

Roll No. 10031

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Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Physics

Add On Course Examination

Basic Instrumentation course in physics

Date: 19/02/2018 **Total Marks: 20**

Time:10:30 am to 11:30 am

Student's Name : Ustad Ruhan K

Student's Sign : Ruhan

Jr. Supervisor Sign: ----------

Q.1) Select correct alternative **(20)**

1)By Newton's formula, if X_1 and X_2 are resp. the object and image distances from the respective focal points for an optical system then.....

a) $X_1X_2=f_1f_2$ b) $X_1/X_2=f_1/f_2$

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2) If the total force acting on a particle or system is zero, then ---- of the particle or system of particles is conserved.

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3) The maimum horizontal distance covered by a projectile is called the --------of the projectile

a) displacement b)range

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a) 3 b) 1 c) 6 d) 9

5) A rigid body in motion can be completely specified if its --------- and ---------- are given

a) position, orientation b)position , velocity

c) position , centre of mass d) orientation , centre of mass

6) The principle of work is expressed by the equation ----------

a) $\sum F_i.\delta r_i = 0$ b) $\sum F_i^{(a)}.\delta r_i = 0$

c) $\sum F_i.\delta v = 0$ d) $F_i.\delta r_i = 0$

7) A constraint is ---------- on the freedom of motion of a system of particles

a) restriction b)condition

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c) information d) none of these

8) Hamilton's principle is ---------- principle

a) differential b) integral

c) an algebraic d) summation

9) The shortest distance between two points in a plane is along a ---------- passing through the two points

a) curve b) normal to plane

c) straight line d) circle

10) ---------- of a particle is same in the fixed and the rotating system

a) velocity b) linear acceleration

c) angular acceleration d) momentum

11) The frequency of antisymmetric mode is ---------- frequency of symmetric mode.

a) higher than b)lower than

c) lowest than d)zero

12)The trajectory of a particle entering an electric field in a direction perpendicular to $\vec{E}$ is ----------

a) straight line parallel to $\vec{E}$ b) parabola

c)hyperbola d)circle

13) If $\emptyset$ is scalar potential function then following equation represent Laplace's equation

a) $\nabla^2\emptyset = 0$ b) $\nabla^2\emptyset = \rho/\epsilon_0$ c) $\nabla\emptyset = 0$ d) $\nabla\emptyset = \rho/\epsilon_0$

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17) According to Ampere's circuital law the line integral of magnetic induction B around closed path is equal to ---------- the total current I enclosed by the closed path.

a) twice b) μ_0 times

c) $\mu_0/2$ times d) $\mu_0/4$ times

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b)polarization vector

c)energy density

d) current density

19) In electromagnetic fields ----------

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b)total momentum is conserved

c) both a and b

d) neither a nor b

20) The trajectory of charged particle in a constant ,uniform magnetic field is --------

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b) parabola

c)hyperbola

d)circle

Roll No. 10022

18/20

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Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Physics

Add On Course Examination

Basic Instrumentation course in physics

Date: 19/02/2018 **Total Marks: 20**

Time:10:30 am to 11:30 am

Student's Name : ---patil omkar I---

Student's Sign : ---Patil---

Jr. Supervisor Sign: ----------

Q.1) Select correct alternative **(20)**

1)By Newton's formula, if X_1 and X_2 are resp. the object and image distances from the respective focal points for an optical system then.....

a) $X_1X_2=f_1f_2$ b) $X_1/X_2=f_1/f_2$

c) $X_1X_2=f_1/f_2$ d) $X_1X_2=f_1f_2$

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c) flight d)trajectory

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a) 3 b) 1 c) 6 d) 9

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c) position , centre of mass d) orientation , centre of mass

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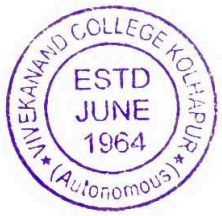

12/20

Roll No. 10018

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Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Physics

Add On Course Examination

Basic Instrumentation course in physics

Date: 19/02/2018 **Total Marks: 20**

Time:10:30 am to 11:30 am

Student's Name : Mane Aishwarya A.

Student's Sign : Asaut

Jr. Supervisor Sign: ----------

Q.1) Select correct alternative **(20)**

1)By Newton's formula, if X_1 and X_2 are resp. the object and image distances from the respective focal points for an optical system then.....

a) $X_1X_2=f_1f_2$ b) $X_1/X_2=f_1/f_2$

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a) 3 b) 1 c) 6 d) 9

5) A rigid body in motion can be completely specified if its --------- and ---------- are given

a) position, orientation b)position , velocity

c) position , centre of mass d) orientation , centre of mass

6) The principle of work is expressed by the equation ----------

a) $\sum F_i.\delta r_i = 0$ b) $\sum F_i^{(a)}.\delta r_i = 0$

c) $\sum F_i.\delta v = 0$ d) $F_i.\delta r_i = 0$

7) A constraint is ---------- on the freedom of motion of a system of particles

a) restriction b)condition

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c) information d) none of these

8) Hamilton's principle is ---------- principle

a) differential b) integral

c) an algebraic d) summation

9) The shortest distance between two points in a plane is along a ---------- passing through the two points

a) curve b) normal to plane

c) straight line d) circle

10) ---------- of a particle is same in the fixed and the rotating system

a) velocity b) linear acceleration

c) angular acceleration d) momentum

11) The frequency of antisymmetric mode is ---------- frequency of symmetric mode.

a) higher than b) lower than

c) lowest than d) zero

12) The trajectory of a particle entering an electric field in a direction perpendicular to $\vec{E}$ is ----------

a) straight line parallel to $\vec{E}$ b) parabola

c) hyperbola d) circle

13) If $\emptyset$ is scalar potential function then following equation represent Laplace's equation

a) $\nabla^2\emptyset = 0$ b) $\nabla^2\emptyset = \rho/\epsilon_0$ c) $\nabla\emptyset = 0$ d) $\nabla\emptyset = \rho/\epsilon_0$

14) Mathematical formulation of empirical laws in electricity and magnetism are known as --

a) Lagrangian's equations b) Maxwell's equations

c) Lorent'sz equations d) Newton's equations

15) The equation of continuity is in accordance with the law of conservation of ----------

a) energy b) momentum

c) charge d) angular momentum

16) Electric dipole moment per unit volume of polarized medium is called ---------

a) Displacement vector D b) Polarization vector P

c) Magnetization M d) Electric intensity vector E

17) According to Ampere's circuital law the line integral of magnetic induction B around closed path is equal to ---------- the total current I enclosed by the closed path.

a) twice b) μ_0 times

c) $\mu_0/2$ times d) $\mu_0/4$ times

18) The electromagnetic energy crossing unit area in unit time is called ---------

a) Poynting vector

b)polarization vector

c)energy density

d) current density

19) In electromagnetic fields ----------

a) total energy is conserved

b)total momentum is conserved

c) both a and b

d) neither a nor b

20) The trajectory of charged particle in a constant ,uniform magnetic field is --------

a) straight line

b) parabola

c)hyperbola

d)circle

16/20

Roll No. 1007

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Vivekanand College, Kolhapur (Autonomous)

Department of Physics

Add On Course Examination

Basic Instrumentation course in physics

Date: 19/02/2018 **Total Marks: 20**

Time:10:30 am to 11:30 am

Student's Name : Nirmalkar Mayuri C.

Student's Sign : Nirmalkar

Jr. Supervisor Sign: ----------

Q.1) Select correct alternative **(20)**

1)By Newton's formula, if X_1 and X_2 are resp. the object and image distances from the respective focal points for an optical system then.....

a) $X_1X_2=f_1f_2$ b) $X_1/X_2=f_1/f_2$

c) $X_1X_2=f_1/f_2$ d) $X_1X_2=f_1f_2$

2) If the total force acting on a particle or system is zero, then ---- of the particle or system of particles is conserved.

a) linear momentum b) angular momentum

c) energy d)force

3) The maimum horizontal distance covered by a projectile is called the --------of the projectile

a) displacement b)range

c) flight d)trajectory

4) Rigid body consist of ---------- degrees of freedom

a) 3 b) 1 c) 6 d) 9

5) A rigid body in motion can be completely specified if its --------- and ---------- are given

a) position, orientation b)position , velocity

c) position , centre of mass d) orientation , centre of mass

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Vivekanand College (Autonomous), Kolhapur.

BASIC INSTRUMENTATION COURSE IN PHYSICS

Result (2018-19)

Batch I (Monday, Tuesday)

(B.Sc.I, III)

Sr.No.	Roll No.	Name of the student	Obtained marks out off (20)	Result
1	10001	Mr. Chile Aniket N.	18	Pass
2	10002	Miss. Chougule Ankita J.	19	Pass
3	10003	Miss. Karale Prajakta M.	20	Pass
4	10004	Miss. Ghulanwarkar Pooja L.	20	Pass
5	10005	Miss. Patil Sanyogita S.	20	Pass
6	10006	Miss. Chougule Priyanka M.	17	Pass
7	10007	Miss. Nirmalkar Mayuri C.	16	Pass
8	10008	Miss. Nadaf Anisa A.	14	Pass
9	10009	Miss. Kumbhar Aishwarya S.	15	Pass
10	10010	Miss. Mohite Shamal V.	18	Pass
11	10011	Mr. Patil Pratik R.	18	Pass
12	10012	Miss. Patil Sheral S.	19	Pass
13	10013	Miss. Musale Tejasvini T.	19	Pass
14	10014	Mr. Wadeyar Anirudha K.	16	Pass
15	10015	Mr. Kumbhar Swarup S.	16	Pass
16	10016	Mr. Yadhav Vaibhav V.	20	Pass
17	10017	Miss. Digraje Ankita R.	20	Pass
18	10018	Miss. More Aishwarya A.	12	Pass
19	10019	Mr. Gulavni Prasad R.	15	Pass
20	10020	Miss. Powar Mayuri P.	20	Pass
21	10021	Miss. Bendke Mukta V.	20	Pass
22	10022	Mr. Patil Omkar I.	18	Pass
23	10023	Mr. Chavan Ramchandra A.	13	Pass

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BASIC INSTRUMENTATION COURSE IN PHYSICS

Result (2018-19)

Batch II (Wednesday and Thursday)

(B.Sc.I, III)

Sr.No.	Roll No.	Name of the student	Obtained marks out off (20)	Result
1.	10024	Miss. Patil Snehal V.	19	Pass
2.	10025	Mr. Bhatale Sachin S.	19	Pass
3.	10026	Miss. Patil Samrudhi Y.	20	Pass
4.	10027	Miss. Londhe Pradnya A.	18	Pass
5.	10028	Mr. Patil Satish S.	20	Pass
6.	10029	Mr. Patil Sourabh S.	18	Pass
7.	10030	Mr. Mote Ramesh A.	17	Pass
8.	10031	Mr. Ustad Ruhan E.	14	Pass
9.	10032	Miss. Suryawanshi Smital J.	15	Pass
10.	10033	Mr. Kesarkar Vinayak B.	18	Pass
11.	10034	Miss. Desai Ashwini A.	18	Pass
12.	10035	Miss. Kamble Shivani S.	19	Pass
13.	10036	Miss. Kanade Priyanka S.	19	Pass
14.	10037	Miss. Patil Shivani D.	17	Pass
15.	10038	Miss. Shinde Manasi L.	16	Pass
16.	10039	Miss. Shinde Manisha A.	20	Pass
17.	10040	Mr. Chodankar Shubham N.	20	Pass
18.	10041	Mr. Patil Pramod D.	12	Pass
19.	10042	Miss. Patil Rutuja B.	15	Pass
20.	10043	Miss. Jangam Shivkrupa P.	20	Pass
21.	10044	Mr. Sonkamble Rohan R.	20	Pass
22.	10045	Mr. Kamble Ashish S.	18	Pass
23.	10046	Mr. Nerelkar Somesh K.	13	Pass
24.	10047	Miss.Ramsing Bhagyashri s	15	

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Certificate

This to certify that Mr/Mrs/Miss Chile Aniket N. of class B.Sc. I has completed the add on/COC course in "**Basic Instrumentation in Physics**" conducted by Department of Physics, Vivekanand College, Kolhapur (Autonomous), Maharashtra, India during 2018 – 2019 academic year.

Course Co-ordinator
(Dr. G. J. Navathe)

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for HOD
(Dr. M. M. Karanjkar)

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This to certify that Mr/Mrs/Miss Manasi L. Shinde of class B. Sc III has completed the add on/COC course in "**Basic Instrumentation in Physics**" conducted by Department of Physics, Vivekanand College, Kolhapur (Autonomous), Maharashtra, India during 2018 – 2019 academic year.

Course Co-ordinator
(Dr. G. J. Navathe)

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(Dr. M. M. Karanjkar)

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Certificate

This to certify that Mr/Mrs/Miss Ashish S. Kambale of class B.Sc III has completed the add on/COC course in "**Basic Instrumentation in Physics**" conducted by Department of Physics, Vivekanand College, Kolhapur (Autonomous), Maharashtra, India during 2018 – 2019 academic year.

Course Co-ordinator
(Dr. G. J. Navathe)

for HOD
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