

Vivekanand College, Kolhapur. (Autonomous)
Department of Physics
Internal Examination Notice
2021-22

Date: 05/01/2022

All students of class B.Sc. I, B.Sc. II and B.Sc. III are hereby noticed that the first term internal evaluation examination is scheduled as per following time table.

Nature of question paper:

For B.Sc. I : Long answer question (Any one from given two questions) for 10 marks

Short answer question (Any two from given three questions) for 20 marks

For B.Sc. II : Long answer question (Any one from given two questions) for 10 marks

Short answer question (Any two from given three questions) for 10 marks

For B.Sc. II (Astro) : Long answer question (Any one from given two questions) for 10 marks

Short answer question (Any two from given three questions) for 10 marks

For B.Sc. III : Long answer question (Any one from given two questions) for 10 marks

Short answer question (Any two from given three questions) for 10 marks


Internal Evaluation Examination 2021-22.

SEM I, SEM III and SEM V

Time Table

Sr. No.	Class	Paper	Date	Time
1.	B.Sc. I	Paper I	12/01/2022	11:00 am to 12:00 pm
2.	B.Sc. II	Paper III	12/01/2022	11:00 am to 12:00 pm
3.	B.Sc. II (Astrophysics)	Paper I	13/01/2022	04:00 pm to 05:00 pm
4.	B.Sc. III	Paper V (section I)	14/01/2022	11:00 am to 12:00 pm
		Paper V (section II)		01:00 am to 02:00 pm
		Paper VI (section I)	15/01/2022	11:00 am to 12:00 pm
		Paper VI (section II)		01:00 am to 02:00 pm




HOD, Physics
Head of the
Department of Physics
Vivekanand College, Kolhapur

"Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr. Bapuji Salunkhe
Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Autonomous).
Department of Physics

B.Sc. Part-II SEM III Internal Examination (2021-22)
Thermal and statistical physics I & waves and optics-I
(Paper code: DSC-1001C)

Date :
Day :

Total Marks: 20
Time :-

Q.1) Attempt the following

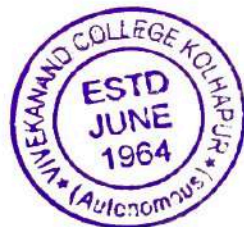
A) Choose the correct alternative

(5)

1. Knudsen gauge is-----
a. an absolute gauge b. a secondary gauge c. most rugged gauge d. none of the above
2. Zero law of thermodynamics is related with -----
a) temperature (b) pressure (c) energy (d) volume
3. Internal energy of gas depends on-----
(a) volume (b) pressure (c) temperature (d) entropy
4. Pressure volume and temperature are called as -----
(a) thermodynamic variables (b) magnetic variables
(c) electric valuables (d) kinetic variables
5. which of the following statement is correct-----
a. specific heat at constant volume is greater than that of at a constant pressure
b. specific heat at a constant pressure is greater than that of at constant volume
c. specific heat at constant pressure exactly equal to the specific heat at a constant volume
d. both A & B
6. chemical equilibrium describes the uniformity of –
(a) pressure (b) temperature (c) volume (d) entropy
7. thermodynamic state of given system depends on -----
(a) thermodynamic variables (b) energy
(c) molecules of system (d) type of gas
8. isolated system is thermally -----surrounding
(a) in contact with (b) isolated from (c) attached with (d) both A and C
9. pressure volume and temperature are---
(a) dependent variables (b) independent variables
(c) mixed variables (d) Zero value variable
10. Which of the following is the equation of state of thermodynamic system---
(a) $f(P,U,T) \neq 0$ (b) $f(P,V) = 0$ (c) $f(P,U,T) = 0$ $f(V,T) \neq 0$
11. Which of the following physical quantity relates with first law of thermodynamic----
(a) temperature (b) pressure (c) energy (d) volume



12. Reverberation time should be-----
(a) chemical equilibrium (b) mechanical equilibrium
(c) gravitational equilibrium (d) thermal equilibrium
13. Which of the following can not travel through a vacuum?
(a) volume (b) pressure (c) temperature (d) entropy
14. The working principle of electromagnetic acoustic transducer is -----
(a) thermodynamic variables (b) magnetic variables
(c) electric variables (d) kinetic variables
15. Rotary pump is also called.....
(a) specific heat at constant volume is greater than that of at a constant pressure
(b) specific heat at a constant pressure is greater than that of at constant volume
(c) specific heat at constant pressure exactly equal to the specific heat at a constant volume
(d) both A & B
16. Rotary oil pump can produce a vacuum as low as -----
(a) pressure (b) temperature (c) volume (d) entropy
17. The principle of diffusion pump is.....
(a) thermodynamic variables (b) energy (c) molecules of system (d) type of gas
18. Air-free mercury vapour is necessary for the action of-----pump.
(a) in contact with (b) isolated from (c) attached with (d) both A and C
19. A cooling system is essential for the operation ofpump
(a) dependent variables (b) independent variables
(c) mixed variables (d) Zero value variable
20. Molecular pump can produce a vacuum as low as
(a) $f(P,U,T) \neq 0$ (b) $f(P,V) = 0$ (c) $f(P,U,T) = 0$ (d) $f(V,T) \neq 0$



Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur

(Autonomous)

Department of Physics

Internal exam (2021-22)

B.Sc.II Sem III

Date:- 12/01/2022

Attendance Sheet

Roll No.	Name Of Student	Signature
7364	Ambi Pranav Anil	Ambi
7365	Avdankar Pratiksha Ranjeet	Pratiksha
7366	Bargir Yusuf Rahim	YB
7367	Chavan Shruti Raj	Shruti
7368	Chougale Tejas Tukaram	Tejas
7369	Dhisale Vinayak Damodar	VD
7370	Dhotre Shreyash Rajendra	Dhotre
7372	Gajare Namrata Ratan	N.R. Gajare
7373	Garad Dnyaneshwar Sunil	Garad
7374	Ghatage Shamal Dattatray	Shamal
7375	Gosavi Vinayak Nandkumar	Vinayak
7376	Jadhav Ashish Pandurang	Jadhav
7377	Jadhav Prajakta Hambir	Jadhav
7378	Jadhav Shankar Gajanan	Shankar
7379	Jadhav Sourabh Ramesh	SRI
7380	Jamadar Mahek Shakilahmed	Mamadar
7381	Kadwale Ankit Vinayak	Kadwale
7382	Kamble Aditya Dattatray	Kamble
7383	Kamble Amol Manik	Amol
7384	Kamble Pradnyavant Machhindra	PK
7385	Karale Pratik Sanjay	Karale
7386	Karekar Aryan Chetan	Karekar
7387	Katkar Dattatray Prakash	Katkar
7388	Khot Rutuja Krushnat	Khot
7389	Khtangle Nishikant Nivruti	N.N. Khtangle
7390	Kulkarni Nupur Sujit	Kulkarni
7391	Kumbhar Abhishek Shivaji	Ak
7392	Kumbhar Dhanashri Dattatraya	Dkumbhar
7393	Mali Abhishek Sanjay	A. mali
7394	Mali Samruddhi Suresh	SM
7395	Mali Tejaswini Sampatrao	Trmali
7396	Mane Swarup Prakash	Swarup



7397	More Prajakta Prabhakar	R. More
7398	Mulik Suraj Pandit	M. Pandit
7399	Patakure Aditya Shivaji	A. Patakure
7400	Patil Abhishek Uday	A. U. Patil
7401	Patil Aditi Mohan	A. Patil
7402	Patil Ajayraj Baburao	A. Patil
7403	Patil Shivani Prakash	S. Patil
7404	Patil Shivani Sidgonda	S. Patil
7405	Patil Sourabh Rajendra	S. Patil
7406	Sawant Sahil Ananda	S. Patil
7407	Shinde Vivek Janardan	V. Shinde
7408	Suryavanshi Priyanka Govinda	P. Suryavanshi
7409	Tashildar Shivani Namdev	S. Namdev
7410	Thorvat Ajinkya Ananda	A. Thorvat
7411	Ubare Sanika Rajaram	S. Ubare
7412	Yadav Vedaja Ajay	V. Yadav
7413	Chavan Dhanshri Popat	D. Chavan
7414	Chilgonde Aditya Ganpat	A. G. Chilgonde
7415	Chougale Pratiksha Rajaram	P. Chougale
7416	Gade Vaibhavi Rajendra	V. Gade
7417	Gutte Shruti Vinay	S. Gutte
7418	Hiremath Pournima Nagayya	P. Hiremath
7419	Jadhav Pankaj Parasharam	P. Jadhav
7420	Jadhav Shreya Anil	S. Jadhav
7421	Jadhav Vaishnavi Vishwas	V. Jadhav
7422	Jadhve Aniket Arun	A. A. Jadhve
7423	Jamdade Manasi Tanaji	M. Jamdade
7424	Kagavale Sandhya Dattatray	S. Kagavale
7425	Kalkutki Shubham Babasaheb	S. Kalkutki
7426	Kamble Anjali Bhagwan	A. Kamble
7427	Kanire Darshan Sharad	D. Kanire
7428	Karape Rajkumar Baban	R. Karape
7429	Kothawale Tejas Vikas	T. Kothawale
7430	Kumawat Varsha Rajesh	V. Kumawat
7431	Kumbhar Tejaswini Tanaji	T. Kumbhar
7432	Kurade Saloni Sanjay	S. Kurade
7433	Mane Manoj Jagannath	M. Mane
7434	Mujawar Ummeaiman Umarfaruk	U. Mujawar
7435	Padmakar Alok Narayan	A. Padmakar
7436	Panhalkar Asham Imam	A. Panhalkar
7437	Panhalkar Varsha Yashvant	V. Panhalkar
7438	Patil Harshad Kiran	H. Patil
7439	Patil Nikita Ashok	N. A. Patil
7440	Patil Om Sanjay	O. Patil
7441	Patil Pooja Sampat	P. Patil
7442	Patil Prajakta Keshav	P. Patil
7443	Patil Sanjana Sanjay	S. Patil



7444	Patil Shraddha Bajirao	SRP
7445	Patil Swapnil Yuvraj	Patil
7446	Potdar Veda Gurunath	Potdar
7447	Powar Kedar Krushnat	Powar
7448	Sangar Akash Anantrao	Sangar
7449	Satpute Sakshi Pandurang	Sakshi
7450	Shinde Manisha Babasaheb	Shinde
7451	Shinde Pranav Tanaji	Pranav
7452	Shinde Sanika Sarjerao	Sanika
7453	Sokasane Sanika Nandkumar	Sanika
7454	Tandale Gouri Sagar	Tandale
7455	Teli Vinayak Rajaram	Vinayak
7456	Thakare Vaishnavee Navnath	Thakare
7457	Warke Shriyash Keraba	Warke
7458	Dadarne Gaurav Ajit	GD
7459	Devekar Vinayak Dattatraya	VD
7460	Jadhav Sae Sandeep	Jadhav
7461	Kavane Digvijay Dilip	Kavane
7462	Khot Ankita Balaso	Khot
7463	Kondekar Asmita Tanaji	Kondekar
7464	Patil Nikhil Sunil	N.S. Patil
7465	Patil Sakshi Pandurang	Patil
7466	Ropalkar Vrushali Aarti	Ropalkar
7467	Shinde Akanksha Santosh	Shinde
7468	Singh Sapana Raviranjana	SR
7469	Suryavanshi Ajay Mohan	Ajay
7470	Todkar Shivani Dipak	Todkar
7471	Waydande Arpita Dipak	Waydande
7472	Bagwan Shakir Salim	Shakir
7473	Bansode Abhishek Balasaheb	Bansode
7474	Dongare Prathamesh Abaji	Dongare
7475	Gurav Shreya Sardar	Gurav
7476	Jadhav Vaishnavi Nanaso	Jadhav
7477	Kamble Rohit Baban	Rohit
7478	Kamble Rutuja Raghunath	Rutuja
7479	Kapase Hanumant Vishwanath	Kapase
7480	Kharase Prathamesh Baburao	Kharase
7481	Koli Pratiksha Rajgonda	Koli
7482	Koli Snehal Narsu	Koli
7483	Kopardekar Harshvardhan Pandurang	Snehal
7484	Magdum Rasika Deepak	Magdum
7485	Momin Mustakim Yasin	Momin
7486	Patil Aaryan Pramod	Patil
7487	Patil Amruta Dattatray	Amruta
7488	Patil Satyajeet Sanjay	Patil
7489	Patil Utkarsh Shivaji	U.S. Patil
7490	Pirai Snehal Rajaram	Pirai



7491	Powar Pruthviraj Pandurang	Powar
7492	Priyadarshi Ajinkya Ashok	A.A. Priyadarshi
7493	Rathod Anushree Suresh	A. Rathod
7494	Sankpal Naganath Uddhav	Sankpal
7495	Sav Lovely Jitendra	Lovely
7496	Shinde Prashant Pandurang	Shinde
7497	Sutar Omkar Sanjay	Sutar
7498	Yadav Rohini Ravsaheb	Rohini
7499	Yadav Shivangi Shivprasad	Yadav
7500	Zirange Anuradha Arjun	Zirange
7501	Bhingardeve Dhiraj Prakash	Dhiraj
7502	Bhopale Sakshi Tushar	Bhopale
7503	Bidre Prajakta Sunil	P.S. Bidre
7504	Chougale Tejas Madan	Chougale
7505	Ghorpade Anjali Uttam	Ghorpade
7506	Jadhav Pradnya Prashant	P. Jadhav
7507	Jadhav Siddhesh Vishnu	Siddhesh
7508	Kamble Ketan Ashok	Ketan
7509	Maner Aman Imtiyaj	Maner
7510	Maurya Muskan Krupashankar	Maurya
7511	Patil Anirudha Vitthal	Patil
7512	Patil Rutvik Tanaji	P. Patil
7513	Patil Sandeep Jaysing	S. Patil
7514	Shingade Aishwarya Deepak	Shingade
7515	Shirke Prerana Pradeep	Shirke
7516	Yadav Bhgyshri Bharat	Yadav

Internal Examiner.....

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16
20

Date :

Total Marks: 20

Day :

Time :-

Q.1) Attempt the following

A) Choose the correct alternative

(5)

1. ✓ Knudsen gauge is-----

a. an absolute gauge b. a secondary gauge c. most rugged gauge d. none of the above

2. ✓ Zero law of thermodynamics is related with -----

a) temperature (b) pressure (c) ✓ energy (d) volume

3. ✓ Internal energy of gas depends on-----

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5. ✓ which of the following statement is correct-----

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b. ✓ specific heat at a constant pressure is greater than that of at constant volume
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d. both A & B

6. ✓ chemical equilibrium describes the uniformity of -

(a) pressure (b) temperature (c) volume (d) ✓ entropy

7. ✓ thermodynamic state of given system depends on -----

(a) thermodynamic variables (b) energy
(c) ✓ molecules of system (d) type of gas

8. ✓ isolated system is thermally -----surrounding

(a) in contact with (b) ✓ isolated from (c) attached with (d) both A and C

9. ✓ pressure volume and temperature are---

(a) dependent variables (b) independent variables
(c) ✓ mixed variables (d) Zero value variable

10. ✓ Which of the following is the equation of state of thermodynamic system---

(a) $f(P,U,T) \neq 0$ (b) $f(P,V) = 0$ (c) ✓ $f(P,U,T) = 0$ $f(V,T) \neq 0$

11. ✓ Which of the following physical quantity relates with first law of thermodynamic----

(a) ✓ temperature (b) pressure (c) energy (d) volume



12. Reverberation time should be-----

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19. A cooling system is essential for the operation ofpump

- (a) dependent variables (b) independent variables
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20. Molecular pump can produce a vacuum as low as

- (a) $f(P,U,T) \neq 0$ (b) $f(P,V) = 0$ (c) $f(P,U,T) = 0$ $f(V,T) \neq 0$



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

Internal Examination 2022-23

ASTROPHYSICS-DSC -1001C

B.Sc. – II, Sem – III

(Fundamentals of Astronomy and astrophysics)

Time: 30 Minutes

Marks: 30

Q. Select correct alternative.

1. The wavelength of visible light is between to
(a) 10 nm to 100 nm (b) 100 nm to 250 nm
(c) 400 nm and 800 nm (d) 10nm to 1000 nm
2. A certain X-ray telescope is named after scientist
(a) Subramanian Chandrashekhar (b) Aryabhata
(c) Copernicus (d) Galileo Galilei
3. The first scientist to use a telescope for space observation was
(a) Subramanian Chandrashekhar (b) Aryabhata
(c) Copernicus (d) Galileo Galilei
4. The biggest optical telescope in India is situated at
(a) Aryabhata Research Institute of Experimental Sciences, Nanital.
(b) ISRO, Bengaluru
(c) IUCAA, Pune
(d) BARC, Mubmai
5. Newtonian telescope is made using----
(a) the concave and the plane mirror,
(b) the convex as well as the concave mirror
(c) only the convex
(d) only the concave mirror
6. the Cassegrain telescope is made using----
(a) the concave and the plane mirror,
(b) the convex as well as the concave mirror
(c) only the convex
(d) only the concave mirror



7. The aperture of the objective lens of a telescope is made large so as to
- Increase the magnifying power of the telescope
 - Increase the resolving power of the telescope
 - Make image aberration less
 - Focus on distant objects
8. Resolving power of a microscope depends upon
- The focal length and aperture of the eye lens
 - The focal lengths of the objective and the eye lens
 - The apertures of the objective and the eye lens
 - The wavelength of light illuminating the object
9. When the length of a microscope tube increases, its magnifying power?
- Decreases
 - Increases
 - Does not change
 - May decrease or increase
10. In Rayleigh's Criterion for Resolution, two images would be just resolved when _____
- The central maxima of one image coincide with central maxima of the other
 - The central maxima of one do not coincide with central maxima of the other
 - The central maxima of one image coincides with the first minimum of the other
 - The central maxima of one image do not coincide with the first minimum of other
11. What is the relationship between the focal length, f , of the objective and the resolving power of the telescope, R.P.?
- $f \propto R.P$
 - $f \propto 1/R.P$
 - $f^2 \propto R.P$
 - no relation
12. In an observation with telescope, having aperture of lens D , if wavelength of length is tripled, then resolving power of telescope will
- decreased by three times
 - increased by three times
 - no overall effect
 - can't say
13. The criterion of resolution of optical instruments was given by-----
- Chadwick
 - Newton
 - Rayleigh
 - Huygens
14. The resolving power of a telescope depends on
- the focal length of the objective lens
 - diameter of the objective lens
 - the magnification of the eye-piece



- (d) refractive index of the objective lens
15. Which is the correct order for star formation for all stars?
- (a) Nebular, Protostar forms, Collapsing cloud fragment
 - (b) Collapsing cloud fragment, Protostar forms, Interstellar cloud
 - (c) Main sequence, Collapsing cloud fragment, Newborn star
 - (d) Protostar forms, Protostar evolves, Newborn star
16. What is the relationship between the focal length, f , of the objective and the resolving power of the telescope, R.P?
- a) $f \propto R.P$
 - b) $f \propto 1/R.P$
 - c) $f^2 \propto R.P$
 - d) no relation
17. In an observation with telescope, having aperture of lens D , if wavelength of length is tripled, then resolving power of telescope will
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 - (d) can't say
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 - (c) Rayleigh
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 - (b) diameter of the objective lens
 - (c) the magnification of the eye-piece
 - (d) refractive index of the objective lens
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 - (b) Collapsing cloud fragment, Protostar forms, Interstellar cloud
 - (c) Main sequence, Collapsing cloud fragment, Newborn star
 - (d) Protostar forms, Protostar evolves, Newborn star



Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur

(Autonomous)

Department of Physics

Internal exam (2021-22)

B.Sc.II Sem III (Astrophysics)


Date:- 13/01/2022

Attendance Sheet

Roll No.	Name Of Student	Signature
7472	Bagwan Shakir Salim	Bagwan
7473	Bansode Abhishek Balasaheb	AB
7474	Dongare Prathamesh Abaji	Dongare
7475	Gurav Shreya Sardar	Shreya
7476	Jadhav Vaishnavi Nanaso	Vaishnavi
7477	Kamble Rohit Baban	R.Kamble
7478	Kamble Rutuja Raghunath	Rutuja
7479	Kapase Hanumant Vishwanath	Kapase
7480	Kharase Prathamesh Baburao	PK
7481	Koli Pratiksha Rajgonda	Koli
7482	Koli Snehal Narsu	Koli
7483	Kopardekar Harshvardhan Pandurang	Kopardekar
7484	Magdum Rasika Deepak	Rasika
7485	Momin Mustakim Yasin	Momin
7486	Patil Aaryan Pramod	Aaryan
7487	Patil Amruta Dattatray	Amruta
7488	Patil Satyajeet Sanjay	SSP
7489	Patil Utkarsh Shivaji	U.Patil
7490	Pirai Snehal Rajaram	Pirai
7491	Powar Pruthviraj Pandurang	Powar
7492	Priyadarshi Ajinkya Ashok	Priyadarshi
7493	Rathod Anushree Suresh	Rathod
7494	Sankpal Naganath Uddhav	Sankpal
7495	Sav Lovely Jitendra	Lovely
7496	Shinde Prashant Pandurang	Shinde
7497	Sutar Omkar Sanjay	Omkar
7498	Yadav Rohini Ravsaheb	Rohini
7499	Yadav Shivangi Shivprasad	Shivangi
7500	Zirange Anuradha Arjun	Anuradha
7501	Bhingardeve Dhiraj Prakash	Bhingardeve
7502	Bhopale Sakshi Tushar	Sakshi
7503	Bidre Prajakta Sunil	Bidre



7504	Chougale Tejas Madan	Tejas
7505	Ghorpade Anjali Uttam	Anjali
7506	Jadhav Pradnya Prashant	Pradnya
7507	Jadhav Siddhesh Vishnu	Siddhesh
7508	Kamble Ketan Ashok	K.A. Kamble
7509	Maner Aman Imtiyaj	Aman
7510	Maurya Muskan Krupashankar	Muskan
7511	Patil Anirudha Vitthal	Anirudha
7512	Patil Rutvik Tanaji	Rutvik
7513	Patil Sandeep Jaysing	Sandeep
7514	Shingade Aishwarya Deepak	Aishwarya
7515	Shirke Prerana Pradeep	Prerana
7516	Yadav Bhgyshri Bharat	Bhgyshri

Internal Examiner..... 



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

Internal Examination 2022-23

ASTROPHYSICS-DSC -1001C

B.Sc. – II, Sem – III

(Fundamentals of Astronomy and astrophysics)

Roll No - 7492

Marks: 30

Time: 30 Minutes

Q. Select correct alternative.

1. The wavelength of visible light is between to

- (a) 10 nm to 100 nm (b) 100 nm to 250 nm
(c) 400 nm and 800 nm (d) 10nm to 1000 nm

2. A certain X-ray telescope is named after scientist

- (a) Subramanian Chandrashekhar (b) Aryabhata
(c) Copernicus (d) Galileo Galilei

3. The first scientist to use a telescope for space observation was

- (a) Subramanian Chandrashekhar (b) Aryabhata
(c) Copernicus (d) Galileo Galilei

4. The biggest optical telescope in India is situated at

- (a) Aryabhata Research Institute of Experimental Sciences, Nanital.
(b) ISRO, Bengaluru
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5. Newtonian telescope is made using----

- (a) the concave and the plane mirror,
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(c) only the convex
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6. the Cassegrain telescope is made using----

- (a) the concave and the plane mirror,
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(c) only the convex
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7. The aperture of the objective lens of a telescope is made large so as to

- (a) Increase the magnifying power of the telescope
- (b) Increase the resolving power of the telescope
- (c) Make image aberration less
- (d) Focus on distant objects

8. Resolving power of a microscope depends upon

- (a) The focal length and aperture of the eye lens
- (b) The focal lengths of the objective and the eye lens
- (c) The apertures of the objective and the eye lens
- (d) The wavelength of light illuminating the object

9. When the length of a microscope tube increases, its magnifying power?

- (a) Decreases
- (b) Increases
- (c) Does not change
- (d) May decrease or increase

10. In Rayleigh's Criterion for Resolution, two images would be just resolved when _____

- a) The central maxima of one image coincide with central maxima of the other
- b) The central maxima of one do not coincide with central maxima of the other
- c) The central maxima of one image coincides with the first minimum of the other
- d) The central maxima of one image do not coincide with the first minimum of other

11. What is the relationship between the focal length, f , of the objective and the resolving power of the telescope, R.P?

- a) $f \propto R.P$
- b) $f \propto 1/R.P$
- c) $f^2 \propto R.P$
- d) no relation

12. In an observation with telescope, having aperture of lens D , if wavelength of length is tripled, then resolving power of telescope will

- (a) decreased by three times
- (b) increased by three times
- (c) no overall effect
- (d) can't say

13. The criterion of resolution of optical instruments was given by-----

- (a) Chadwick
- (b) Newton
- (c) Rayleigh
- (d) Huygens

14. The resolving power of a telescope depends on

- (a) the focal length of the objective lens
- (b) diameter of the objective lens
- (c) the magnification of the eye-piece



(d) refractive index of the objective lens

15. Which is the correct order for star formation for all stars?

(a) Nebular, Protostar forms, Collapsing cloud fragment

(b) Collapsing cloud fragment, Protostar forms, Interstellar cloud

(c) Main sequence, Collapsing cloud fragment, Newborn star

(d) Protostar forms, Protostar evolves, Newborn star

16. What is the relationship between the focal length, f , of the objective and the resolving power of the telescope, R.P?

a) $f \propto R.P$

b) $f \propto 1/R.P$

(c) $f^2 \propto R.P$

d) no relation

17. In an observation with telescope, having aperture of lens D , if wavelength of length is tripled, then resolving power of telescope will

(a) decreased by three times

(b) increased by three times

(c) no overall effect

(d) can't say

18. The criterion of resolution of optical instruments was given by-----

(a) Chadwick

(b) Newton

(c) Rayleigh

(d) Huygens

19. The resolving power of a telescope depends on

(a) the focal length of the objective lens

(b) diameter of the objective lens

(c) the magnification of the eye-piece

(d) refractive index of the objective lens

20. Which is the correct order for star formation for all stars?

(a) Nebular, Protostar forms, Collapsing cloud fragment

(b) Collapsing cloud fragment, Protostar forms, Interstellar cloud

(c) Main sequence, Collapsing cloud fragment, Newborn star

(d) Protostar forms, Protostar evolves, Newborn star

