Code No: A109100104 Set No. 1
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
I B.Tech. III Mid Examinations, May– 2010
ENGINEERING PHYSICS

Objective Exam

Name: _____ Hall Ticket No. A

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I. Choose the correct alternative:

1. The material in which spontaneous polarization changes with temperature, is called [ ]
(A) ferroelectric (B) pyroelectric (C) piezoelectric (D) anti-ferromagnetic
2. Nickel zinc ferrites are used as cores in [ ]
(A) radios (B) TV transformers (C) transmitters (D) electromagnets
3. In multimode graded index fiber, light rays travel in different parts of the fiber [ ]
(A) with different speeds (B) with same speed
(C) with minimum speed (D) with maximum speed
4. In fiber optic communication system, the preferable source of light is [ ]
(A) LED (B) sodium lamp (C) mercury lamp (D) laser
5. The residential soundproofing aims to eliminate the effects of [ ]
(A) internal noise (B) reverberation (C) absorption (D) external noise
6. The magnetic susceptibility (÷) of a magnetic material is given by [ ]
(A) ÷ = (îr -1) (B) ÷ = (îr +1) (C) ÷ = (1 - ìr) (D) ÷ = (îo -1)
7. The condition for lasing action is [ ]
(A) excitation (B) meta-stable state (C) population inversion (D) emission
8. The reverberation time for an auditorium is the time required for the intensity of sound to drop to
[ ]
(A) 10^{-9} times its initial value (B) 10^{-6} times its initial value
(C) 10^{-3} times its initial value (D) 10^{-8} times its initial value
9. Which of the following is not a stage of sol-gel formation? [ ]
(A) Agglomeration (B) Condensation (C) Hydrolysis (D) Sputtering
10. The relation between magnetic induction (B), magnetic field strength (H) and magnetization (M) is
[ ]

a. B = H + M (B) B = M + ìoH (C) B = ìo (H + M) (D) M = B + ìoH
b.

II Fill in the blanks

11. The unit for measurement of displacement vector is _____.
12. Above Curie temperature, the shape of B-H curve of a ferromagnetic material is in the form of a
_____.
13. The phenomenon of expulsion of magnetic lines from a super-conductor is known as _____.
14. The unit of Einstein's coefficient is _____.
15. The synthesizing of nanomaterials from larger pieces of material, is called _____ technique.
16. Ionic Polarization is _____ temperature.
17. The active element in ruby laser is _____.
18. The acceptance angle of a fiber of numerical aperture 0.22, is _____º.
19. A _____ is a device for reducing the amount of noise emitted by a machine.

20. When the radius of a sphere is reduced to 2.0 nm, the surface area to volume ratio becomes
_____ per meter.

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Code No: A109100104 Set No. 2
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
I B.Tech. III Mid Examinations, May – 2010
ENGINEERING PHYSICS

Objective Exam
Name: _____ Hall Ticket No. A

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I. Choose the correct alternative:

1. In fiber optic communication system, the preferable source of light is [ ]
(A) LED (B) sodium lamp (C) mercury lamp (D) laser
2. The residential soundproofing aims to eliminate the effects of [ ]
(A) internal noise (B) reverberation (C) absorption (D) external noise
3. The magnetic susceptibility (÷) of a magnetic material is given by [ ]
(A) ÷ = (ìr -1) (B) ÷ = (ìr +1) (C) ÷ = (1 - ìr) (D) ÷ = (ìo -1)
4. The condition for lasing action is [ ]
(A) excitation (B) meta-stable state (C) population inversion (D) emission
5. The reverberation time for an auditorium is the time required for the intensity of sound to drop to
[ ]
(A) 10^{-9} times its initial value (B) 10^{-6} times its initial value
(C) 10^{-3} times its initial value (D) 10^{-8} times its initial value
6. Which of the following is not a stage of sol-gel formation? [ ]
(A) Agglomeration (B) Condensation (C) Hydrolysis (D) Sputtering
7. The relation between magnetic induction (B), magnetic field strength (H) and magnetization (M) is
[ ]
(A) B = H + M (B) B = M + ìoH (C) B = ìo (H + M) (D) M = B + ìoH
8. The material in which spontaneous polarization changes with temperature, is called [ ]
(A) ferroelectric (B) pyroelectric (C) piezoelectric (D) anti-ferromagnetic
9. Nickel zinc ferrites are used as cores in [ ]
(A) radios (B) TV transformers (C) transmitters (D) electromagnets
10. In multimode graded index fiber, light rays travel in different parts of the fiber [ ]
(A) with different speeds (B) with same speed
(C) with minimum speed (D) with maximum speed

II Fill in the blanks

11. The unit of Einstein's coefficient is _____.
12. The synthesizing of nanomaterials from larger pieces of material, is called _____ technique.
13. Ionic Polarization is _____ temperature.
14. The active element in ruby laser is _____.
15. The acceptance angle of a fiber of numerical aperture 0.22, is _____º.
16. A _____ is a device for reducing the amount of noise emitted by a machine.
17. When the radius of a sphere is reduced to 2.0 nm, the surface area to volume ratio becomes
_____ per meter.
18. The unit for measurement of displacement vector is _____.
19. Above Curie temperature, the shape of B-H curve of a ferromagnetic material is in the form of a
_____.

20. The phenomenon of expulsion of magnetic lines from a super-conductor is known as _____.

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Code No: A109100104 Set No. 3
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
I B.Tech. III Mid Examinations, May – 2010
ENGINEERING PHYSICS

Objective Exam
Name: _____ Hall Ticket No. A

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I. Choose the correct alternative:

1. The magnetic susceptibility (÷) of a magnetic material is given by [ ]
(A) ÷ = (ìr -1) (B) ÷ = (ìr +1) (C) ÷ = (1 - ìr) (D) ÷ = (ìo -1)
2. The condition for lasing action is [ ]
(A) excitation (B) meta-stable state (C) population inversion (D) emission
3. The reverberation time for an auditorium is the time required for the intensity of sound to drop to
[ ]
(A) 10^{-9} times its initial value (B) 10^{-6} times its initial value
(C) 10^{-3} times its initial value (D) 10^{-8} times its initial value
4. Which of the following is not a stage of sol-gel formation? [ ]
(A) Agglomeration (B) Condensation (C) Hydrolysis (D) Sputtering
5. The relation between magnetic induction (B), magnetic field strength (H) and magnetization (M) is
[ ]
(A) B = H + M (B) B = M + ìoH (C) B = ìo (H + M) (D) M = B + ìoH
6. The material in which spontaneous polarization changes with temperature, is called [ ]
(A) ferroelectric (B) pyroelectric (C) piezoelectric (D) anti-ferromagnetic
7. Nickel zinc ferrites are used as cores in [ ]
(A) radios (B) TV transformers (C) transmitters (D) electromagnets
8. In multimode graded index fiber, light rays travel in different parts of the fiber [ ]
(A) with different speeds (B) with same speed
(C) with minimum speed (D) with maximum speed
9. In fiber optic communication system, the preferable source of light is [ ]
(A) LED (B) sodium lamp (C) mercury lamp (D) laser
10. The residential soundproofing aims to eliminate the effects of [ ]
(A) internal noise (B) reverberation (C) absorption (D) external noise

II Fill in the blanks

11. Ionic Polarization is _____ temperature.
12. The active element in ruby laser is _____.
13. The acceptance angle of a fiber of numerical aperture 0.22, is _____º.
14. A _____ is a device for reducing the amount of noise emitted by a machine.
15. When the radius of a sphere is reduced to 2.0 nm, the surface area to volume ratio becomes
_____ per meter.
16. The unit for measurement of displacement vector is _____.
17. Above Curie temperature, the shape of B-H curve of a ferromagnetic material is in the form of a
_____.
18. The phenomenon of expulsion of magnetic lines from a super-conductor is known as
_____.

19. The unit of Einstein’s coefficient is _____.
20. The synthesizing of nanomaterials from larger pieces of material, is called _____ technique.

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Code No: A109100104 Set No. 4
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
I B.Tech. III Mid Examinations, May – 2010
ENGINEERING PHYSICS

Objective Exam
Name: _____ Hall Ticket No. A

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I. Choose the correct alternative:

1. The reverberation time for an auditorium is the time required for the intensity of sound to drop to
[ ]
(A) 10^{-9} times its initial value (B) 10^{-6} times its initial value
(C) 10^{-3} times its initial value (D) 10^{-8} times its initial value

2. Which of the following is not a stage of sol-gel formation? [ ]
(A) Agglomeration (B) Condensation (C) Hydrolysis (D) Sputtering

3. The relation between magnetic induction (B), magnetic field strength (H) and magnetization (M) is
[ ]
(A) B = H + M (B) B = M + $ì_o$H (C) B = $ì_o$ (H + M) (D) M = B + $ì_o$H

4. The material in which spontaneous polarization changes with temperature, is called [ ]
(A) ferroelectric (B) pyroelectric (C) piezoelectric (D) anti-ferromagnetic

5. Nickel zinc ferrites are used as cores in [ ]
(A) radios (B) TV transformers (C) transmitters (D) electromagnets

6. In multimode graded index fiber, light rays travel in different parts of the fiber [ ]
(A) with different speeds (B) with same speed
(C) with minimum speed (D) with maximum speed

7. In fiber optic communication system, the preferable source of light is [ ]
(A) LED (B) sodium lamp (C) mercury lamp (D) laser

8. The residential soundproofing aims to eliminate the effects of [ ]
(A) internal noise (B) reverberation (C) absorption (D) external noise

9. The magnetic susceptibility (÷) of a magnetic material is given by [ ]
(A) ÷ = ($ì_r$ -1) (B) ÷ = ($ì_r$ +1) (C) ÷ = (1 - $ì_r$) (D) ÷ = ($ì_o$ -1)

10. The condition for lasing action is [ ]
(A) excitation (B) meta-stable state (C) population inversion (D) emission

II Fill in the blanks

11. The acceptance angle of a fiber of numerical aperture 0.22, is _____º.
12. A _____ is a device for reducing the amount of noise emitted by a machine.
13. When the radius of a sphere is reduced to 2.0 nm, the surface area to volume ratio becomes
_____ per meter.
14. The unit for measurement of displacement vector is _____.
15. Above Curie temperature, the shape of B-H curve of a ferromagnetic material is in the form of a
_____.
16. The phenomenon of expulsion of magnetic lines from a super-conductor is known as

_____.
17. The unit of Einstein's coefficient is _____.
18. The synthesizing of nanomaterials from larger pieces of material, is called _____ technique.
19. Ionic Polarization is _____ temperature.
20. The active element in ruby laser is _____.

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