OBJECTIVE KEY FOR SEC ANNUALS\% \% \& KY EXAMINATION,2019.

Name of Subject: Physics lots
Group: list

| Q. | Paper Code | Paper Code | Paper Code | Paper Code |
| :---: | :---: | :---: | :---: | :---: |
| Nos | $347 /$ | 3473 | 3475 | 3477 |
| 1 | $C$ | $A$ | $A$ | $D$ |
| 2 | $C$ | $D$ | $B$ | $B$ |
| 3 | $A$ | $A, B, C, D$ | $A$ | $A$ |
| 4 | $D$ | $C$ | $C$ | $B$ |
| 5 | $B$ | $C$ | $A$ | $A$ |
| 6 | $A$ | $A$ | $D$ | $C$ |
| 7 | $B$ | $D$ | $A, B, C, D$ | $A$ |
| 8 | $A$ | $B$ | $C$ | $D$ |
| 9 | $C$ | $A$ | $C$ | $A, B, C, D$ |
| 10 | $A$ | $B$ | $A$ | $C$ |
| 11 | $D$ | $A$ | $D$ | $C$ |
| 12 | $A, B, C, D$ | $C$ | $B$ | $A$ |
| 13 |  |  |  |  |
| 14 |  |  |  |  |
| 15 |  |  |  |  |
| 16 |  |  |  |  |
| 17 |  |  |  |  |
| 18 |  |  |  |  |
| 19 |  |  |  |  |
| 20 |  |  |  |  |

Session: 2015-201
Group: 2nd

| Q. | Paper Code | Paper Code | Paper Coda | Paper Code |
| :--- | :--- | :--- | :--- | :--- |



Key b
62019





Prepared \& Checked By:
Dated: $07-03-2019$


2019 （A）

## SSC PART－II（10th CLASS）

 PHYSICS（NEW SCHEME）GROUP－I（2015－2017＊）TIME ALLOWED：1．45 Hours

SUBJECTIVE

## MAXIMUM MARKS： 48

## NOTE：－Write same question number

 and its part number on answer book，as given in the question paper．

## SECTION－I

$10=2 \times 5$
2－Attempt any five parts．
（i）State Hooke＇s Law and write its equation．
（ii）How time period of a Simple Pendulum can be determined？
（iii）What is Reciprocal of Time Period？Define it．
（iv）What is meant by SONAR？
（v）Which equation is used to find the Speed of Sound？
（vi）What is the difference between Generator and Motor？
（vii）What is Transformer？Write its types．
（viii）What is the function of Split Rings in a D．C motor？
3－Attempt any five parts．
$10=2 \times 5$
（i）Differentiate between Angle of Incident and Angle of Reflection．
（ii）What is the Refractive Index of Ice and Water？
（iii）Define the terms Resolving Power and Magnifying Power．
（iv）What is meant by Fax Machine？
（v）What is meant by the term＂Word Processing＂and＂Data Managing＂？
（vi）Write names of four input devices of Computer．
（vii）Write two characteristics of Beta Radiation．
（viii）What is meant by Artificial Radioactivity？
4－Attempt any five parts．
$10=2 \times 5$
（i）Define Fixed Capacitor．Give one example．
（ii）Write two uses of Capacitors．
（iii）What is meant by Capacitance of Capacitor？ Define unit of Capacitance．
（iv）Define Electromotive Force．
（v）What is Voltmeter？
（vi）Define Ohm．
（vii）What is OR gate？Write its Truth Table．
（viii）Write two uses of Logic gates．
－ －أ⿰亻⿱丶⿻工二又 ¢ － rr
（iv） آروازی（v）（v）
（vi）

¢
－
（i）
（ii） （iii）

（v）
－
（vii）
（آنیْ（viii）
－

（iii）

¢！（v）
（vi）


SECTION－II（و，a＞

## 

 Farsightedness？How can these defects be corrected？

5

$$
\begin{aligned}
& g_{e}=10 \mathrm{~ms}^{-2} \text { ? }
\end{aligned}
$$

（B）The time period of a simple pendulum is 2 s ．What will be its length on the earth？What will be its length on the moon？If $g_{m}=g_{e} / 6$ where $g_{e}=10 \mathrm{~ms}^{-2}$

6．（A）Discuss the main features of series combination of resistors． $4-$ 6－ 4 （الف（

（B）The capacitance of a parallel plate capacitor is $100 \mu \mathrm{~F}$ ．If the potential difference between its plates is 50 volts，find the quantity of charge stored on each plate．

7．（A）Describe using simple diagrams what happens when a narrow beam of elections passes through uniform electric field and uniform magnetic field？
（B）Carbon－14 has a half life of 5730 years．How long it will take for the quantity of Carbon－14 in a sample to drop to one－eighth of the initial quantity．

## PAPER CODE

## NUMBER: 3471

## PHYSICS (NEW SCHEME) GROUP-I (2015-2017

TIME ALLOWED: 15 Minutes

## OBJECTIVE



MAXIMUM MARKS: 12


Note: You have four choices for each objective type question as $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D . The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

## Q.No. 1

(1) The time period of vibrating mass spring system, when its
 mass become doubled:-
(A) Remain same

(C) Increased $\mathfrak{Z}_{6}^{6} 60 \%$
(D) Decreased BC b $x$ r
(2) The speed of Sound is greater in:-
(A) Water
(B) Air $1 \%$
(C) Metal
(D) Vacuum
$-$ $\qquad$ نك ميكنى فيكيشن

(3) An object is placed at a distance 30 cm from a concave lens. Its image forms at 10 cm from lens.

The magnification of lens is:-
(A) $1 / 3$
(B) 3
(C) 10
(D) 15
(4) The magnifying power of simple microscope is:-
ا حا
(A) $\frac{f_{o}}{f_{e}}$
(B) $\frac{f_{e}}{f_{o}}$
(C) $1-\frac{d}{f}$
(D) $1+\frac{d}{f}$

(5) The correct relation for Coulomb's Force is:-
(A) $F=K \frac{q_{1} q_{2}}{r}$
(B) $F=K \frac{q_{1} q_{2}}{r^{2}}$
(C) $F=\frac{1}{K} \frac{q_{1} q_{2}}{r}$
(D) $F=\frac{1}{K} \frac{q_{1} q_{2}}{r^{2}}$
(6) If 0.5 C charge pass through a wire in 10 s , ك: ك: $\qquad$
 then $\qquad$ will be the value of current flowing through the wire.
(A) 0.05 A
(B) 0.5 A
(C) 5 A
(D) 20 A
(7) If we doubled the length of mettalic wire while other factors remain same, then its resistance will be:-
(A) Half آرت
(B) Doubled
(C) Quadruple $\hat{6}$
(D) Remain same تrun
(8) $\qquad$ part of D.C. motor reverses
 $\qquad$ 6is 05
the direction of current flowing the coil every half cycle.
(A) The commutator
(B) The brushes $\%$
(C) Slips rings
(D) The armature
(9) If a metal is heated to high temperature, it emits the particles:-

(A) Protons $\%$
(B) Neutrons $\%$
(C) Electrons
(D) Positive ions
(10) Which of the gate is used to convert one logic level into
opposite logic level?
(A) NOT gate
(B) AND gate
(C) OR gate

(11) In Computer Terminology, Information means:-
(A) Any data
(B) Raw data
(C) Large data
(D) Processed data
(12) The Isotopes of lodine 131 is used in the treatment of.-
(A) Blood Cancer ${ }^{\circ}$
(B) Bone Cancer
(C) Lungs Cancer
(D) Thyroid Cancer تأنَا

## PAPER CODE

## PHYSICS（NEW SCHEME）GROUP－I（2015－2017（\＃ّ）

## TIME ALLOWED： 15 Minutes

## OBJECTIVE



## MAXIMUM MARKS： 12

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 which you think is correct，fill that bubble in front of that question number．On bubble sheet，use marker or pen to fill the bubbles．Cutting or filling two or more bubbles will result in zero mark in that question．Attempt as many questions as given in objective type question paper and leave others blank．No credit will be awarded in case BUBBLES are not filled．Do not solve questions on this sheet of OBJECTIVE PAPER．

## Q．No． 1

（1）Which of the gate is used to convert one logic level into opposite logic level？
（A）NOT gate
（B）AND gate
（C）OR gate
（D）Both AND and OR gate الئزاورآرگيت ورؤن
er كيرُّ
（2）In Computer Terminology，Information means：－

（A）Any data كُكِّكُ
（B）Raw data

（A）Blood Cancer
（B）Bone Cancer بُ th Ht
（C）Lungs Cancer
（D）Thyroid Cancer
（4）The time period of vibrating mass spring system，when its mass become doubled：－


（C）Increased $8: 60 \%$
（D）Decreased 8 \％ $6 \times 5$
（5）The speed of Sound is greater in：－
（A）Water
（B）Air 19
（C）Metal ${ }^{4}$

（6）An object is placed at a distance 30 cm from a concave lens．Its image forms at 10 cm from lens． The magnification of lens is：－
（A） $1 / 3$
（B） 3
（C） 10
（D） 15
（7）The magnifying power of simple microscope is：－
（A）$\frac{f_{o}}{f_{e}}$
（B）$\frac{f_{e}}{f_{0}}$
（C） $1-\frac{d}{f}$
（D） $1+\frac{d}{f}$
（8）The correct relation for Coulomb＇s Force is：－
$\begin{array}{ll}\text {（C）} F=\frac{1}{K} \frac{q_{1} q_{2}}{r} & \text {（D）} F=\frac{1}{K} \frac{q_{1} q_{2}}{r^{2}}\end{array}$
 then $\qquad$ will be the value of current flowing through the wire．
（A） 0.05 A
（B） 0.5 A
（C） 5 A
（D） 20 A
（10）If we doubled the length of mettalic wire while other factors remain same，then its resistance will be：－
（A）Half
（B）Doubled H，$^{\text {B，}}$
（C）Quadruple
（D）Remain same تُبَ（D）
（11） $\qquad$ part of D．C．motor reverses制 $\qquad$ 6\％
the direction of current flowing the coil every half cycle．
（A）The commutator
（B）The brushes
（C）Slips rings
（D）The armature 令 $\pi$

（A）Protons 浸多
（B）Neutrons ${ }^{2}$
（C）Electrons
（D）Positive ions

## PAPER CODE

 NUMBER: 3475
## 2019 (A) <br> SSC PART-II (10th CLASS)

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## PHYSICS (NEW SCHEME) GROUP-I

## ("世ّثن 2015-2017 ()

TIME ALLOWED: 15 Minutes

## OBJECTIVE

## MAXIMUM MARKS: 12

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Note: You have four choices for each objective type question as $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D . The choice $-\quad \mathrm{U}$. which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.
Q. No. 1
 $\qquad$
 then $\qquad$ will be the value of current flowing through the wire.
(A) 0.05 A
(B) 0.5 A
(C) 5 A
(D) 20 A
(2) If we doubled the length of mettalic wire while other factors remain same, then its resistance will be:-

(A) Half آرت
(B) Doubled
(C) Quadruple
 part of D.C. motor reverses
(3) $\qquad$ حصرآر عـا $\qquad$ 5'9065 the direction of current flowing the coil every half cycle.
(A) The commutator
(B) The brushes \%,
(C) Slips rings
(D) The armature

(A) Protons
(B) Neutrons
(C) Electrons اليكرّ
(D) Positive ions
 opposite logic level?
(A) NOT gate
(B) AND gate
(C) OR gate آريث
(D) Both AND and OR gate انئ أروآريُ رونول
(6) In Computer Terminology, Information means:-
(A) Any data كؤك
(B) Raw data
(C) Large data
(D) Processed data
(7) The Isotopes of Iodine 131 is used in the treatment of:-
(A) Blood Cancer نون by
(B) Bone Cancer

(D) Thyroid Cancer قاكَرائئكينر
(8) The time period of vibrating mass spring system, when its
 mass become doubled:-
(A) Remain same اكيبيار_ب؛
(B) Become half
(C) Increased $8 \%$ 6 $0 \%$
(D) Decreased B\% (9) The speed of Sound is greater in:-
(A) Water
(B) Air $1 r$
(C) Metal
(D) Vacuum كيكر

(10) An object is placed at a distance 30 cm from a concave lens. Its image forms at 10 cm from lens. The magnification of lens is:-
(A) $1 / 3$
(B) 3
(C) 10
(D) 15
(11) The magnifying power of simple microscope is:-
(A) $\frac{f_{o}}{f_{e}}$
(B) $\frac{f_{e}}{f_{o}}$
(C) $1-\frac{d}{f}$
(D) $1+\frac{d}{f}$
-
(12) The correct relation for Coulomb's Force is:-

كلمبit
(A) $F=K \frac{q_{1} q_{2}}{r}$
(B) $F=K \frac{q_{1} q_{2}}{r^{2}}$
(C) $F=\frac{1}{K} \frac{q_{1} q_{2}}{r}$
(D) $F=\frac{1}{K} \frac{q_{1} q_{2}}{r^{2}}$

## PAPER CODE

## NUMBER: 3477

## (2015-2017

MAXIMUM MARKS: 12
$1512-4$

Note: You have four choices for each objective type question as A, B, C and D. The choice $-U_{\text {. }}$
which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen
to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as
many questions as given in objective type question paper and leave others blank. No credit will be awarded
in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER

## Q.No. 1

(1) The magnifying power of simple microscope is:-
(A) $\frac{f_{o}}{f_{e}}$
(B) $\frac{f_{e}}{f_{o}}$
(C) $1-\frac{d}{f}$
(D) $1+\frac{d}{f}$

(2) The correct relation for Coulomb's Force is:-
$\begin{array}{ll}\text { (C) } F=\frac{1}{K} \frac{q_{1} q_{2}}{r} & \text { (D) } F=\frac{1}{K} \frac{q_{1} q_{2}}{r^{2}}\end{array}$
(A) $F=K \frac{q_{1} q_{2}}{r}$
(B) $F=K \frac{q_{1} q_{2}}{r^{2}}$
 $\qquad$

(3) If 0.5 C charge pass through a wire in 10 s , then $\qquad$ will be the value of current flowing through the wire.
(A) 0.05 A
(B) 0.5 A
(C) 5 A
(D) 20 A
(4) If we doubled the length of mettalic wire while

other factors remain same, then its resistance will be:-
(A) Half آرشى
(B) Doubled $: \%$,

(D) Remain same تُبِّ
(5) $\qquad$ part of D.C. motor reverses هصمرآ, $\qquad$ 6"906
the direction of current flowing the coil every half cycle.
(A) The commutator
(B) The brushes $\%$.
(C) Slips rings
(D) The armature $\hat{5}$
(6) If a metal is heated to high temperature, it emits the particles:-
(A) Protons

(C) Electrons
(D) Positive ions
(7) Which of the gate is used to convert one logic level into
 opposite logic level?

> (A) NOT gate بكيُ
(B) AND gate الئيُّ
(C) OR gate آريّ


(8) In Computer Terminology, Information means:-
(C) Large data (D) Processed data
(A) Any data
(B) Raw data

(9) The Isotopes of Iodine 131 is used in the treatment of:-
(A) Blood Cancer

(C) Lungs Cancer $\dot{\text { (A) }} 6$
(D) Thyroid Cancer
 mass become doubled:-
(A) Remain same ايكبيار_ب؛

(C) Increased \% 6 \% \% \%
(D) Decreased be bar آواركَ كيُّزيارْ
(11) The speed of Sound is greater in:-
(A) Water
(B) Air $1 \%$
(C) Metal ${ }^{\text {K }}$
(D) Vacuum ;

(12) An object is placed at a distance 30 cm from a concave lens. Its image forms at 10 cm from lens. The magnification of lens is:-
(A) $1 / 3$
(B) 3
(C) 10
(D) 15 and its part number on answer book, as given in the question paper.

## SECTION-I حصاول

2- Attempt any five parts.
(i) Electromagnetic waves do not require any medium for their propagation. Why? Give reason.
(ii) What do you know about "Ripple Tank"?
(iii) How does crest and trough are produced in a water wave?
(iv) What is the relation between Frequency and Pitch?
(v) Write two uses of Ultrasound in Medical field.
(vi) How the direction of magnetic lines field are determined in current caring straight wire?
(vii) Write down two ways to increase the magnetic force.
(viii) What is the function of "Relay"?

10=2×5 5 -


3- Attempt any five parts.
(i) State the Laws of Reflection of Light.
(ii) Define Power of Lens and write its unit.
(iii) How Farsightedness defect can be corrected?
(iv) What is meant by Cell Phone?
(v) Write down two advantages of E-mail.
(vi) Define Super Computer.
(vii) How can you define Natural Radioactivity?
(viii) What is meant by Cosmic Radiations?

4- Attempt any five parts.
(i) Define Electrostatic Induction.
(ii) Define Electric Potential and also write its S.I unit.
(iii) What is meant by Capacitance of the Capacitor? Also define its S .1 unit.
(iv) Write a short note on Conventional Current.
v) How Potential difference across a
 circuit component can be measured? Draw a diagram also.
(vi) What is the difference between Ohmic and Non-Ohmic material?
 Give examples also.
(vii) What is the difference between Analogue and Digital Electronics?
 Give examples also.
(viii) Draw a symbol of NOT gate and also write its Truth Table.
(NOT)

## SECTION-II (Hm)

NOTE: - Attempt any two questions.
5.(A) What is Total Internal Reflection? 4
$18=9 \times 2$

- ؤ
 Explain with Ray diagram.

5 (ب)
(B) A pendulum of length 0.99 m is taken to the moon by an astronut. The period of the pendulum is 4.9 s . What is the value of " g " on the surface of the Moon?
6. (A) Determine the equivalent resistance of
 parallel combination of resistors.
(B) The charge of how many negatively charged particles would be equal to $100 \mu \mathrm{C}$.

Assume charge on one negative particle is $1.6 \times 10^{-19} \mathrm{C}$


(B) Half life of a radioactive element is 10 minutes. If the initial count rate is 368 count per minute, 5 ~ find the time by which count rate reaches 23 counts per minutes.

## PAPER CODE NUMBER: 3472

## 2019 (A) <br> SSC PART -II (10th CLASS)

MAXIMUM MARKS: 12

Note: You have four choices for each objective type question as $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D . The choice -0 which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

## Q. No. 1

(1) The relation between $v, f$ and $\lambda$ of a wave is:-
(A) $v_{f}=\lambda$
(B) $\lambda_{f}=v$
(C) $\nu \lambda=f$
(D) $v=\frac{\lambda}{f}$
(2) Speed of sound at $25^{\circ} \mathrm{C}$ in Flint glass is:-
(A) $5950 \mathrm{~m} / \mathrm{s}$
(B) $6040 \mathrm{~m} / \mathrm{s}$
(C) $5960 \mathrm{~m} / \mathrm{s}$
(D) $3980 \mathrm{~m} / \mathrm{s}$
\%
(3) Refractive Index of Air is:-
(A) 1.36
(B) 1.00
(C) 1.31
(D) 1.33
$-6 t$ $\qquad$

(4) The Index of Refraction depends on:-
(A) The focal length
(B) The speed of light رشَّك
(C) The image distance
(5) The equation of Electric Field Intensity is:-
(D) The object distance Pr جمامط

(A) $E=\frac{q_{o}}{F}$
(B) $q_{o}=\frac{E}{F}$
(C) $F=\frac{E}{q_{o}}$
(D) $E=\frac{F}{q_{o}}$
(6) Specific resistance of Graphite is:-
(A) $3500 \times 10^{-8} \Omega \mathrm{~m}$
(B) $100 \times 10^{-8} \Omega m$
(C) $9.8 \times 10^{-8} \Omega m$
(D) $10.6 \times 10^{-8} \Omega m$
(7) The power of small fan is:-
(A) 100 watts
(B) 750 watts
(C) 50 watts
(D) 10 watts
(8) $\qquad$ part of a D.C. motor حصـ $\qquad$ bis D.C. reverses the direction of current through the coil after every energy half-cycle.
(A) The armature
(B) The commutator كمّئر
(C) The brushes \% \%
(D) The slip rings لِحْرِّز
(9) If $X=A \cdot B, \quad$ then $X$ is 1 when:-
(A) $A=1, B=1$
(B) $A=0, B=0$
(C) $A=0, B=1$
(D) $A=1, B=0$
(10) The out put of NAND gate is 0 when:-

(A) $A=0, B=0$
(B) $A=1, B=1$
(11) In Computer Terminology, Information means:-

$$
\begin{array}{ll}
\text { (C) } A=1, B=0 & \text { (D) } A=0, B=1
\end{array}
$$

(A) Any data
(B) RAW data
6
(12) One of the isotopes of Uranium is ${ }_{92}^{238} U$

 The number of Neutrons in this isotope is:-
(A) 92
(B) 146
(C) 238
(D) 330

## PAPER CODE NUMBER: 3474


TIME ALLOWED: 15 Minutes

## OBJECTIVE حصرْرْ

## MAXIMUM MARKS: 12

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Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

## Q.No. 1

(1) The power of small fan is:-
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(2) $\qquad$ part of a D.C. motor
 $\qquad$ fir D.C.
reverses the direction of current through the coil after every energy half-cycle.
(A) The armature 药
(B) The commutator كمؤرئ
(C) The brushes $\%$
(D) The slip rings لَ

(A) $A=1, B=1$
(B) $A=0, B=0$
(C) $A=0, B=1$
(D) $A=1, B=0$ (SAND)
(4) The out put of NAND gate is 0 when:-
(D) $A=0, B=1$
(5) In Computer Terminology, Information means:-
(C) $A=1, B=0$
(A) Any data كُكْ
(B) RAW data
(6) One of the isotopes of Uranium is ${ }_{92}^{238} U$

The number of Neutrons in this isotope is:-
(A) 92
(B) 146
(C) 238
(D) 330

(A) $v_{f}=\lambda$
(B) $\lambda_{f}=v$
(C) $v \lambda=f$
(D) $v=\frac{\lambda}{f}$

(8) Speed of sound at $25^{\circ} \mathrm{C}$ in Flint glass is:-

The relation between $v, f$ and $\lambda$ of a wave is:-
(B) $6040 \mathrm{~m} / \mathrm{s}$
(C) $5960 \mathrm{~m} / \mathrm{s}$
(D) $3980 \mathrm{~m} / \mathrm{s}$ .
(C) 1.31
(D) 1.33
$-45$ $\qquad$

(B) The speed of light روثنك
(D) The object distance ?
(A) $E=\frac{q_{0}}{F}$
(B) $q_{o}=\frac{E}{F}$
(C) $F=\frac{E}{q_{o}}$
(D) $E=\frac{F}{q_{0}}$

(12) Specific resistance of Graphite is:-
(A) $3500 \times 10^{-8} \Omega \mathrm{~m}$
(B) $100 \times 10^{-8} \Omega \mathrm{~m}$
(D) $10.6 \times 10^{-8} \Omega \mathrm{~m}$
(C) $9.8 \times 10^{-8} \Omega \mathrm{~m}$

## PAPER CODE

 NUMBER： 3476PHYSICS（NEW SCHEME）GROUP－II（2015－2017

## SSC PART－II（10th CLASS）



TIME ALLOWED： 15 Minutes
MAXIMUM MARKS： 12

## OBJECTIVE

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كلّمْ＝ －


Note：You have four choices for each objective type question as A，B，C and D．The choice which you think is correct，fill that bubble in front of that question number．On bubble sheet，use marker or pen to fill the bubbles．Cutting or filling two or more bubbles will result in zero mark in that question．Attempt as many questions as given in objective type question paper and leave others blank．No credit will be awarded in case BUBBLES are not filled．Do not solve questions on this sheet of ObJECTIVE PAPER．

## Q．No． 1

（1）The out put of NAND gate is 0 when：－
（NAND）
（A） $\mathrm{A}=0, \mathrm{~B}=0$
（B）$A=1, B=1$
（C）$A=1, B=0$
（D）$A=0, B=1$
（2）In Computer Terminology，Information means：－

（B）RAW data
（3）One of the isotopes of Uranium is ${ }_{92}^{238} U$

$$
\begin{align*}
& \text { (C) Processed data } \tag{2}
\end{align*}
$$

The number of Neutrons in this isotope is：－
（A） 92
（B） 146
（C） 238
（D） 330

（A）$v_{f}=\lambda$
（B）$\lambda_{f}=v$
（C）$\nu \lambda=f$
（D）$v=\frac{\lambda}{f}$
（5）Speed of sound at $25^{\circ} \mathrm{C}$ in Flint glass is：－

（A） $5950 \mathrm{~m} / \mathrm{s}$
（B） $6040 \mathrm{~m} / \mathrm{s}$
（C） $5960 \mathrm{~m} / \mathrm{s}$
（D） $3980 \mathrm{~m} / \mathrm{s}$

（6）Refractive Index of Air is：－
（A） 1.36
（B） 1.00
（C） 1.31
（D） 1.33
－ctror $\qquad$

（A）The focal length \％\％

（8）The equation of Electric Field Intensity is：－
（A）$E=\frac{q_{0}}{F}$
（B）$q_{o}=\frac{E}{F}$
（C）$F=\frac{E}{q_{0}}$
（D）$E=\frac{F}{q_{o}}$
（9）Specific resistance of Graphite is：－
（D） $10.6 \times 10^{-8} \Omega \mathrm{~m}$
（A） $3500 \times 10^{-8} \Omega \mathrm{~m}$
（B） $100 \times 10^{-8} \Omega \mathrm{~m}$
（C） $9.8 \times 10^{-8} \Omega \mathrm{~m}$
ºn
（10）The power of small fan is：－

（D）The object distance ？
（A） 100 watts
（B） 750 watts
（C） 50 watts
（D） 10 watts
（11） $\qquad$ part of a D．C．motor
 $\qquad$ ror D．C．
reverses the direction of current through the coil after every energy half－cycle．
（A）The armature
（B）The commutator كوئرُ
（C）The brushes $\%$
（D）The slip rings لِيْ⿰亻⿱丶⿻工二又⿴囗

（12）If $X=A \cdot B$ ，then $X$ is 1 when：－
（C）$A=0, B=1$
（D）$A=1, B=0$

## PAPER CODE NUMBER： 3478

 Note：You have four choices for each objective type question as A，B，C and D．The choice which you think is correct，fill that bubble in front of that question number．On bubble sheet，use marker or pen to fill the bubbles．Cutting or filling two or more bubbles will result in zero mark in that question．Attempt as many questions as given in objective type question paper and leave others blank．No credit will be awarded in case BUBBLES are not filled．Do not solve questions on this sheet of OBJECTIVE PAPER．

## Q．No． 1

（1）The Index of Refraction depends on：－
$-<t y$ $\qquad$


（B）The speed of light روثنكَ
（C）The image distance
（D）The object distance ？م عماصل
（A）$E=\frac{q_{o}}{F}$
（B）$q_{o}=\frac{E}{F}$
（C）$F=\frac{E}{q_{o}}$
（D）$E=\frac{F}{q_{0}}$
（3）Specific resistance of Graphite is：－
（A） $3500 \times 10^{-8} \Omega \mathrm{~m}$
（B） $100 \times 10^{-8} \Omega \mathrm{~m}$
（C） $9.8 \times 10^{-8} \Omega \mathrm{~m}$
（D） $10.6 \times 10^{-8} \Omega \mathrm{~m}$
華
（4）The power of small fan is：－
（A） 100 watts
（B） 750 watts
（C） 50 watts
（D） 10 watts
（5） $\qquad$ part of a D．C．motor
 $\qquad$ \％
reverses the direction of current through the coil after every energy half－cycle．
（A）The armature
令
（B）The commutator
（C）The brushes $\%$
（D）The slip rings لـر
（6）If $X=A \cdot B$ ，then $X$ is 1 when：－

$$
\begin{equation*}
\text { In } 1 \tag{6}
\end{equation*}
$$

（A）$A=1, B=1$
（B）$A=0, B=0$
（C）$A=0, B=1$
（D）$A=1, B=0$
（7）The out put of NAND gate is 0 when：－ （WAND）
（A）$A=0, B=0$
（B）$A=1, B=1$
（C）$A=1, B=0$
（D） $\mathrm{A}=0, \mathrm{~B}=1$
（8）In Computer Terminology，Information means：－


The number of Neutrons in this isotope is：－
（A） 92
（B） 146
（C） 238
（D） 330

（A）$v_{f}=\lambda$
（B）$\lambda_{f}=v$
（C）$v \lambda=f$
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（12）Refractive Index of Air is：－
（A） 1.36
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## PHYSICS (OLD SCHEME)

## GROUP-I

TIME ALLOWED: 2.45 Hours

( سيثّ (2017-2015 )
SUBJECTIVE حصرانثا ح~~


MAXIMUM MARKS: 63
NOTE: - Write same question number
نو and its part number on answer book, as given in the question paper.

## SECTION-I حصاول

2- Attempt any six parts.
(i) Define vibratory motion.
(ii) What is meant by Ultrasound?
(iii) What is meant by intensity of sound?
(iv) What is meant by audible frequency range of sound?
(v) Describe the laws of refraction.
(vi) What is meant by Refractive Index?
(vii) What is meant by Magnifing Power?
(viii) Define Electrostatic Induction.
(ix) Describe Coulomb's Law.

3- Attempt any five parts.
(i) What is meant by Capacitance? Write its unit.
(ii) Write down two uses of Capacitors.
(iii) Define Conventional Current.
(iv) What is an electromotive force?
(v) Define Resistance.
(vi) Define Conductors. Give an example.
(vii) What is meant by the Parallel combination of resistances?
(viii) What is meant by Electromagnetic Induction?

4- Attempt any five parts. $10=2 \times 5$
(i) Define mutual induction.
(ii) What is meant by Thermionic emmission?
(iii) Write the truth table of "OR" gate and draw its circuit diagram.
(iv) What is the difference between data and information?
(v) Write down two uses of computer in daily life.
(vi) What is the difference between hardware and software?
(vii) Write down two properties of alpha particles.
(viii) Define isotopes and give one example.

$$
\begin{aligned}
& \text {, (i) } \\
& \text { (ii) } \\
& \text { (iii) } \\
& \text { (iv) } \\
& \text { - (v) } \\
& \text { (vi) } \\
& \text { (vii) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (ix) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { - (i) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (iii) } \\
& \text { Cu (iv) } \\
& \text { رز (v) (v) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (vii) } \\
& \text { (Viii) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (i) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (iii) }
\end{aligned}
$$

$$
\begin{aligned}
& \text { (vi) }
\end{aligned}
$$

## SECTION-II حמرو3

NOTE: - Attempt any three questions. $21=7 \times 3 \quad$ th
5.(A) Prove that the motion of a mass 4 4 5 attached to a spring is an example of SHM.
(B) A student claps his hands near a cliff and hears its echo after 5 s . What is the distance of the cliff from the student if the speed of the sound is taken as $346 \mathrm{~ms}^{-1}$.
(
6.(A) Define total internal reflection of light. 4
 Also write the conditions for total internal reflection.
(B) An object 10 cm in front of a convex mirror forms an image 5.0 cm behind the mirror.

What is the focal length of the mirror?
7.(A) Find the equivalent resistance of
 parallel combination of resistors.
(B) Two bodies are oppositely charged with $500 \mu \mathrm{C}$ and
$100 \mu \mathrm{C}$. Find the force between the two charges if the distance between them in air is 0.5 m .
8.(A) What is transformer? Explain its construction and working principle.
(B) Explain AND and NOT gate.

Also write the truth table.
9.(A) What are two common radiation hazards?


$$
3
$$ Briefly describe the precautions that are taken against them.

(B) Internet is a useful source of knowledge and information. Explain with examples.
10. NOTE: - (Practical Part) Attempt any two parts.
(A) (i) Define Snell's Law.

3 (ii)
(ii) If angle of incidence $(\angle i)$ is $37^{\circ}$ and angle of refraction $(\angle r)$ is $22^{\circ}$ then by Snell's Law find refractive index.

竞
(B) If resistances of two resistors are $R_{1}=2 K \Omega$ and $R_{2}=6 K \Omega$ then by series combination of resistors find $\left(R_{e}\right)$ and design circuit diagram.
(C) Design circuit diagram for AND gate. Verify its truth table by Boolean equation.

$$
\begin{aligned}
& \text { SECTION-III } \\
& 5+5
\end{aligned}
$$

## PAPER CODE

## 2019 （A） SSC PART－II（10th CLASS）

## NUMBER： 7471

PHYSICS（OLD SCHEME） GROUP－I

TIME ALLOWED： 15 Minutes

## MAXIMUM MARKS： 12

風地店

## （2015－2017 ）

 OBJECTIVE
， Note：You have four choices for each objective type question as A，B，C and D．The choice which you think is correct，fill that bubble in front of that question number．On bubble sheet，use marker or pen to fill the bubbles．Cutting or filling two or more bubbles will result in zero mark in that question．Attempt as many questions as given in objective type question paper and leave others blank．No credit will be awarded in case BUBBLES are not filled．Do not solve questions on this sheet of OBJECTIVE PAPER．

## Q．No． 1

（1）Among the following $\qquad$ is an example of $\qquad$
 simple harmonic motion．

## （A）Motio $n$ of a simple pendulum

（B）The motion of ceiling fan

（2）The relation between $v, f$ and $\lambda$ of a wave is：－
（A）$v f=\lambda$
（B）$f \lambda=v$
（C）$v \lambda=f$
（D）$v=\frac{\lambda}{f}$
（3）How does sound travel from its source to your ear？
（A）By changes in air pressure

（B）By vibrations in wire or string
（D）By infrared waves إنز اريُوروزيكَببوات
－

（C）Virtual，upright and magnified ，رو\％

اكي
（A）Attracts other positive charge
（B）Repels other positive charge
（D）Repels a neutral charge
（C）Attracts a neutral charge




（D）Cross each other in the region of weak field

「 3 A
（7）When a current of 3 A passes in a resistor $6 \Omega$ ． of $6 \Omega$ ，then voltage across this resistor is：－
（A） 2 V
（B） 9 V
（C） 18 V
（D） 36 V

8）A D．C motor converts：－
（A）Mechanical energy into electrical energy كميكّ
（B）Mechanical energy into chemical energy
（C）Electrical energy into mechanical energy الئ⿰夫见

（9）The particles emitted from a hot cathode surface are called：－
（A）Positive ions لوزئيوآ＂
（B）Negative ions
（C）Protons
（D）Electrons الئرْ
（10）The basic operations performed by a computer are：－
（A）Arithmetic operations

（B）Non－arithmetic operations ناناتِ
（C）Logical operations لاجكّآرشٌ
（D）Both A and C رؤن A
（11） $\qquad$ is not processing．
（A）Arranging تيبد
（B）Manipulating C ：
（C）Caiculating
（D）Gathering ： － $\qquad$ Zur
（12）Release of energy by the Sun is due to：－
（A）Nuclear fission
（B）Nuclear fusion
（C）Burning of gases
（D）Chemical reaction

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION,MULTAN

Name of Subject:
 Session:


| Q. Nos | Paper Code <br> 7471 | Paper Code | Paper Code | Paper Code |
| :---: | :---: | :---: | :---: | :---: |
| 1 | A |  |  |  |
| 2 | B |  |  |  |
| 3 | A |  |  |  |
| 4 | A |  |  |  |
| 5 | B |  |  |  |
| 6 | B |  |  |  |
| 7 | C |  |  |  |
| 8 | C |  |  |  |
| 9 | D |  |  |  |
| 10 | D |  |  |  |
| 11 | D |  |  |  |
| 12 | B |  |  |  |
| 13 |  |  |  |  |
| 14 |  |  |  |  |
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Prepared \& Checked By:
Dated:7-03. 2019


