

PHYSICS

020 - (دہم کلاس)

PAPER CODE = 7473

سوالیہ پرچہ : II (معروضی طرز)

Q. Paper : II (Objective Type)

Time Allowed : 15 Minutes

(پہلا گروپ)

وقت : 15 منٹ

Maximum Marks : 12

کل نمبر : 12

نوٹ : ہر سوال کے چار ممکنہ جوابات 'A'، 'B'، 'C' اور 'D' دیئے گئے ہیں۔ جوابی کاپی پر ہر سوال کے سامنے دیئے گئے دائروں میں سے درست جواب کے مطابق متعلقہ دائرہ کو مار کر یا پین سے بھر دیجئے۔ ایک سے زیادہ دائروں کو پُر کرنے یا کاٹ کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	In a logic gate if $X = A \cdot B$, then X is "1" when : A = 1 and B = 1 / B = 1 اور A = 1 (B) A = 0 or B = 0 / B = 0 یا A = 0 (A) A = 1 and B = 0 / B = 0 اور A = 1 (D) A = 0 and B = 1 / B = 1 اور A = 0 (C)
2	Let two resistances R_1 and R_2 are combined in parallel in a circuit, their equivalent resistance will be : $R_e = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2}}$ (D) $R_e = R_1 \times R_2$ (C) $\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2}$ (B) $R_e = R_1 + R_2$ (A)
3	Release of energy by the sun is due to : Burning of gases (B) گیسوں کا جلتا Nuclear fission (A) نیوکلیئر فیشن Chemical reaction (D) کیمیکل ری ایکشن Nuclear fusion (C) نیوکلیئر فیوژن
4	When water waves enter the region of shallow water, which quantity will change : Wave length (D) ویو لینتھ Amplitude (C) امپلی ٹیوڈ Time period (B) ٹائم پیریڈ Frequency (A) فریکوئنسی
5	The brain of any computer system is : Disks (D) ڈسکس Memory (C) میموری Monitor (B) مانیٹر CPU (A) سی پی یو
6	The frequency of ultrasounds is than the frequency of audible sound waves : Less and equal (D) کم اور برابر Equal (C) برابر Higher (A) زیادہ Less (B) کم
7	The branch of physics which deals with the control of motion of electrons is : Electronics (D) الیکٹرانکس Nuclear physics (C) نیوکلیئر فزکس Dynamics (B) ڈائنامکس Mechanics (A) مکینکس
8	The defect of vision "Farsightedness" can be corrected with the aid of suitable : Double concave lens (D) ڈبل کنکاو لینز Convex mirror (C) کنوئیکس مرر Convex lens (B) کنوئیکس لینز Concave lens (A) کنکاو لینز
9	If a ray in glass is incident on air surface at an angle greater than critical angle, the ray will : Partially refract and partially reflect (D) کچھ ریفریکٹ اور کچھ ریفلکٹ Diffract (B) ڈیفریکٹ Reflect only (A) صرف ریفلکٹ Refract only (C) صرف ریفریکٹ
10	In houses consumption of electric energy is measured in : Joule-hour (D) جول۔آر Kilowatt-hour (A) کلواٹ۔آر Watt-hour (C) واٹ۔آر Watts (B) واٹ
11	Five joule of work is needed to shift 10 C of charge from one place to another, the potential difference between the places is : 0.5 V (D) 10 V (C) 5 V (B) 2 V (A)
12	The direction of induced e.m.f. in a circuit is in accordance with conservation of : Momentum (D) مومینٹم Charge (B) چارج Mass (A) ماس Energy (C) انرجی

PHYSICS

020 - (دہم کلاس)

فزکس

Paper : II (Essay Type)

(پہلا گروپ)

پرچہ : II (انشائیہ طرز)

Time Allowed : 1.45 hours

وقت : 1.45 گھنٹے

Maximum Marks : 48

(حصہ اول - PART - I)

کل نمبر : 48

10 2. Write short answers to any Five (5) questions :

2- کوئی سے پانچ (5) سوالات کے مختصر جوابات لکھئے :

- Define wave.
- Derive a relation between speed, frequency and wavelength.
- What is meant by ripple tank?
- What is meant by loudness of sound?
- Write two uses of ultrasound.
- Define reflection of sound.
- Write two characteristics of focus of a concave and a convex mirror.
- Define mirror formula.

10 3. Write short answers to any Five (5) questions :

3- کوئی سے پانچ (5) سوالات کے مختصر جوابات لکھئے :

- Define Coulomb's law.
- What is the difference between variable and fixed type capacitor?
- What is meant by damp conditions?
- What is the difference between galvanometer and ammeter?
- What is the difference between a cell and a battery?
- What do you know about paper capacitor?
- What is armature?
- Define electromagnet.

10 4. Write short answers to any Five (5) questions :

4- کوئی سے پانچ (5) سوالات کے مختصر جوابات لکھئے :

- Write down the symbol of OR gate.
- What is meant by digital to analogue converter?
- Name the two factors which enhance thermionic emission.
- Define telecommunication.
- Differentiate between RAM and ROM.
- What is meant by cosmic radiation?
- Define nuclear fusion and write its equation.
- Write two characteristics of beta radiation.

(حصہ دوم - PART-II)

Note : Attempt any TWO questions.

نوٹ : کوئی سے دو سوالات کے جوابات لکھئے۔

5. (a) What is meant by simple harmonic motion (SHM)? Explain it with example of simple pendulum.
(ب) ایک جسم مر سے 34.4 cm کے فاصلہ پر پڑا ہے اور اس کی امیج مر کے پیچھے 5.66 cm پر بنتی ہے۔ مرر کی فوکل لینتھ معلوم کیجئے۔
5. (b) Find the focal length of a mirror that forms an image 5.66 cm behind the mirror of an object placed at 34.4 cm in front of the mirror. Is the mirror concave or convex?
6. (a) State Joule's law and derive its mathematical formula.
(ب) دو چارجز جب 5 cm کے فاصلے پر پڑے ہوں تو وہ ایک دوسرے کو 0.1 N کی فورس سے دفع کرتے ہیں۔ ان چارجز کے درمیان فورس کی قیمت معلوم کیجئے جب وہ 2 cm کے فاصلے پر رکھے گئے ہوں۔
(b) Two charges repel each other with a force of 0.1 N when they are 5 cm apart. Find the force between the same charges when they are 2 cm apart.
7. (a) Explain the use of logic gates as safety alarm.
(ب) ریڈیو ایکٹو کوکواٹ 60 کی ہاف لائف 5.25 سال ہے 26 سال بعد کوکواٹ 60 کی اصل مقدار کا کتنا حصہ باقی رہ جائے گا؟
(b) Cobalt-60 is radioactive element with half-life of 5.25 years. What fraction of the original sample will be left after 26 years?