

NUMBER: 3477

SSC PART-II (10th CLASS)

PHYSICS GROUP-I

TIME ALLOWED: 15 Minutes

OBJECTIVE حصہ معروضی

فزکس گروپ - پہلا

وقت = 15 منٹ

MAXIMUM MARKS: 12

MTN-10-G1-20

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 مارکر یا پین سے بھر دیجئے۔ ایک سے زیادہ دائروں کو بھر کرنے یا کٹ کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔ دائروں کو پُر نہ کرنے کی صورت میں کوئی نمبر نہیں دیا جائے گا۔ اس سوال پر سوالات ہرگز حل نہ کریں۔

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. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

سوال نمبر 1۔

- (1) The SI unit of power of a lens is _____.
(A) Watt واٹ (B) Hertz ہرٹز (C) Bel بل (D) Diopetre ڈائی آپٹر
- (2) Capacitance is defined as:
(A) VC (B) Q/V (C) QV (D) V/Q
- (3) When we double the voltage in a simple electric circuit, it doubles the:
(A) Current کرنٹ (B) Power پاور (C) Resistance رزٹنس (D) Both A and B دونوں
- (4) Colour coding for Neutral wire is:
(A) Black or blue سیاہ یا نیلا (B) Red or brown سرخ یا براؤن (C) Green or yellow سبز یا زرد (D) White or violet سفید یا بنفشی
- (5) The step up transformer:
(A) Increases the input current ان پٹ کرنٹ کو بڑھاتا ہے (B) Increases the input voltage ان پٹ وولٹیج کو بڑھاتا ہے (C) Has more turns in primary coil کی پرائمری کوئل میں زیادہ پکڑے ہوئے ہیں (D) Has less turns in the secondary coil کی سیکنڈری کوئل میں کم پکڑے ہوئے ہیں
- (6) The particles emitted from a hot cathode surface are:
(A) Positive ions پوزیٹو آئنز (B) Negative ions نیگیٹو آئنز (C) Protons پروٹونز (D) Electrons الیکٹرونز
- (7) Boolean expression for NOR gate is:
(A) $X = A + B$ (B) $X = A \cdot B$ (C) $X = \overline{A \cdot B}$ (D) $X = \overline{A + B}$
- (8) 1024 bytes are equal to:
(A) 1 KB (B) 1 MB (C) 1 GB (D) None of these ان میں سے کوئی بھی نہیں
- (9) Find the number of neutrons in the nuclide defined by $^{13}_6X$.
(A) 6 (B) 7 (C) 13 (D) 19
- (10) Waves transfer:
(A) Energy انرجی (B) Frequency فریکوئنسی (C) Wavelength ویلینگتھ (D) Velocity ولاسٹی
- (11) An example of Longitudinal Waves is:
(A) Sound waves سائونڈ ویوز (B) Light waves رائیٹ ویوز (C) Radio waves ریڈیو ویوز (D) Water waves واٹر ویوز
- (12) An object is 14 cm in front of a Convex mirror. The image is 5.8 cm behind the mirror. What is the focal length of the mirror?
(A) -4.1 cm (B) -8.2 cm (C) -9.9 cm (D) -20 cm

SSC PART-II (10th CLASS)

PHYSICS GROUP-I

TIME ALLOWED: 1.45 Hours

SUBJECTIVE حصہ انشائیہ

MAXIMUM MARKS: 48

MIN-10-Q1-20

کل نمبر = 48

NOTE: Write same question number

نوٹ۔ جوابی کاپی پر وہی سوال نمبر اور جزو نمبر درج کیجیے جو کہ سوالیہ پر ہے میں درج ہے۔

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

SECTION-I حصہ اول

2- Attempt any five parts.

10 = 2 x 5

(i) Give difference between Mechanical and Electromagnetic Waves

(ii) What is meant by Restoring Force?

(iii) Prove that $v = f \lambda$

(iv) What is meant by Loudness of Sound?

Name the factors on which it depends.

(v) What is meant by "SONAR"?

(vi) What is Audible Frequency Range?

(vii) Write two conditions for total internal reflection.

(viii) What is the difference between Shortsightedness and Farsightedness.

3- Attempt any five parts.

10 = 2 x 5

(i) What is meant by Electric field intensity? Write its unit.

(ii) Write two factors which affect the ability of a capacitor to store a charge.

(iii) Define Kilowatt Hour.

(iv) What is meant by Electric Current? Write its unit.

(v) Write down colour coding of Live wire and Earth wire.

(vi) State Fleming's Left Hand Rule.

(vii) What is Armature?

(viii) Define Electromagnetic Induction.

4- Attempt any five parts.

10 = 2 x 5

(i) What is meant by Electron Gun? Write any use of it.

(ii) What is meant by DAC and ADC?

(iii) Draw a symbolic diagram for NOR gate and write its truth table.

(iv) Write the names of components of (CBIS) computer based information system.

(v) What is meant by Flow of Information?

(vi) Define fission reaction and write its equation.

(vii) What are the Radioisotopes?

(viii) Describe two common radiations hazards.

SECTION-II حصہ دوم

NOTE: Attempt any two questions.

18 = 9 x 2

5.(A) Prove that the motion of Ball and Bowl system execute simple harmonic motion.

(B) A ray of light from air is incident on a liquid surface at an angle of incidence 30° . Calculate the angle of refraction if the refractive index of the liquid is 1.25.

6.(A) State and explain Joule's Law. (B) A capacitor holds 0.06 Coulombs of charge when fully charged by a 9 Volt battery. Calculate the capacitance of the capacitor.

7.(A) What is meant by Thermionic Emission? Explain the deflection of electrons by electric field and magnetic field.

(B) Cobalt-60 is a radioactive element with half-life of 5.25 years. What fraction of the original sample