

## PHYSICS

- Sol.** (1) Ray nature of light.

**102.** In Domestic Electric Circuits appliances are always conneded in

- Sol.** (2) Parallel

**103.** A force of 40 N acts on a body, and body moves through a distance of 2 metre at an angle of  $45^\circ$  in the direction of the force. The work done by the force is

- Sol.** (3)  $80/\sqrt{2}$  Jeule.

$$W = FS \cos \theta$$

$$= 40 \times 2 \times \cos 45^\circ$$

$$W = \frac{80}{\sqrt{2}} \text{ Jeule.}$$

- 
- Velocity-time graph for a car starting from rest. The y-axis is Velocity ( $\text{ms}^{-1}$ ) from 0 to 60. The x-axis is Time (s) from 0 to 30. A straight line passes through points A(10, 18), B(15, 27), C(20, 36), D(25, 45), and E(30, 54). A shaded rectangle is drawn from  $t=10$  to  $t=20$ , with a height of  $18 \text{ ms}^{-1}$ . The area is labeled 'Distance travelled'.

1.  $360 \text{ ms}^{-2}$                       2.  $180 \text{ ms}^{-2}$                       3.  $0.9 \text{ ms}^{-2}$                       4.  $1.8 \text{ ms}^{-2}$

- Sol. (4)**

$1.8 \text{ m/s}^2$

$$a = \frac{\Delta v}{\Delta t} = \frac{9 \times 2}{10} = 1.8 \text{ m/s}^2$$

- 105.** A Person cannot see the object beyond 50 cm, Tli pov'er of lens to correct this defect will be

1. +2 D                      2. -2D                      3. +5 D                      4. +0.5 D

- Sol. (2) -2D**

Far point of person  $v = -50 \text{ cm}$

$$u_\varepsilon = \infty$$

$$\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$$

$$\frac{1}{f} = \frac{1}{-50} - \frac{1}{\infty}$$

$$f = -50 \text{ cm}$$

$$\text{Power } P = \frac{100}{f} = \frac{100}{-50}$$

$$P = -2D$$

**106.** If the frequency of wave is trippled, then its wav length?

1. Becomes Double
2. Becomes Half
3. Becomes Cne third of original
4. Remains same.

**Sol.** (3) Becomes one third of original speed of wave  $V = n\lambda$ .

If medium is same, then speed of wave remains same.

If frequency is trippled then wavelength be  $\lambda$ .

$$V = (3n)\lambda'$$

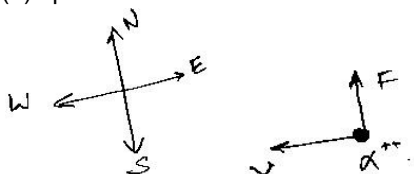
$$(3n)\lambda' = n\lambda$$

$$\lambda' = \frac{\lambda}{3}$$

**107.** A positively charged particle (alpha particle) projected towards west is deflected towards north by magnetic field. The direction of magnetic field is

1. Downwards
2. Towards South
3. Towards East
4. Upwards

**Sol.** (4) upwards



By Flemings left hand rule.

**108.** If distance between Earth and Moon is increased by Six time, then force of gravitation between both will.....

1. Increased 1/36 times
2. Decrease 1/36 times
3. Increase 36 times
4. Decrease 6 times

**Sol.** (1)

Increase  $\frac{1}{36}$  times.

Newton's law of gravitation

$$F \propto \frac{1}{r^2}$$

$$F^1 = \frac{F}{(6)^2} = \frac{1}{36} \times F$$

**109.** A bullet of mass 20g is horizontly fired with velocity of  $150 \text{ ms}^{-1}$  from pistol of mass 2 kg. What is the recoil velocity of the Pistol.

1.  $-1.5 \text{ ms}^{-1}$
2.  $-1.5 \text{ ms}^{-1}$
3.  $-3.0 \text{ ms}^{-1}$
4.  $0 \text{ ms}^{-1}$

**Sol.** (1)

$-1.5 \text{ m/s}$  By conservation of linear momentum

$$m_1 v_1 = -m_2 v_2$$

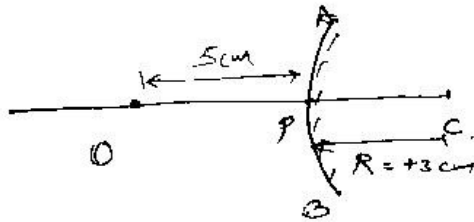
$$v_2 = \frac{-m_1 v_1}{m_2} = -\frac{0.02 \times 150}{2} = -1.5 \text{ m/s}$$

**110.** A object is placed 5 cm in front of Convex mirror, whose radius of curvature is 3cm. Find the Position and Nature of Image.

1. +1.15 cm, Real and Erect.
2. +1.15 cm, Virtual and inversed
3. +1.15 cm, Virtual and Erect
4. -1.15 cm, Virtual and Erect.

**Sol.**

(3)  
+1.15, virtual and erect.



$$R = +3 \text{ cm}$$


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$$\text{So, } f = \frac{R}{2} = \frac{3}{2} \text{ cm}$$

$$u = -5 \text{ cm}$$

Mirror formula

$$\frac{1}{v} = \frac{1}{f} - \frac{1}{u}$$

$$\frac{1}{v} = \frac{2}{3} - \frac{1}{-5}$$

$$\frac{1}{v} = \frac{2}{3} + \frac{1}{5}$$

$$\frac{1}{v} = \frac{13}{15}$$

$$v = \frac{15}{13} = +1.15 \text{ cm}$$

**111.** A current of 0.5 A is drawn by a filament of an electric bulb for 10 minutes. find the no of electrons flows through the circuit are

1.  $6 \times 10^{18}$  Electrons
2.  $18 \times 10^{18}$  Electrons
3.  $6 \times 10^{20}$  Electrons
4.  $18 \times 10^{20}$  Electrons

**Sol. (4)**

$$18 \times 10^{20} \text{ electrons}$$

$$I = \frac{Q}{t}$$

$$I = \frac{ne}{t}$$

$$n = \frac{It}{e} = \frac{0.5 \times 10 \times 60}{1.6 \times 10^{-19}}$$

$$n = 18 \times 10^{20} \text{ electrons}$$

112. Which of following cannot hear ultrasound waves?  
 1. Bats                      2. Human                      3. Dolphins                      4. Dogs
- Sol. (2) Humans  
 (Theoretical)  
 Ultra sound area above audible range.
113. Refractive Indexes (indices) of Water = 1.33, Kerosene = 1.44, Ruby = 1.71 & Diamond = 2.42 are respectively, in which of these velocity of light is minimum?  
 1. water                      2. Kerosene                      3. Ruby                      4. Diamond
- Sol. (4) Diamond  
 $n_{\text{Diamond}} > n_{\text{Ruby}} > n_{\text{Kerosene}} > n_{\text{water}}$   
 Since, Diamond is densest, So, speed/ velocity of light is minimum in diamond.

### CHEMISTRY

114. Among Mg,  $\text{Mg}^{2+}$ , Al,  $\text{Al}^{3+}$  which will have the largest and smallest size respectively?  
 1.  $\text{Mg}^{2+}$ , Al                      2.  $\text{Al}^{3+}$ , Mg                      3. Mg,  $\text{Al}^{3+}$                       4. Al,  $\text{Mg}^{2+}$
- Sol. (3)  
 Size decrease across the period and cations are smaller than parent atom.
115. Which of the following statements about the modern periodic Table is /are incorrect  
 1. The elements in the Modern periodic table are arranged on the basis of their decreasing atomic number.  
 2. The elements in the Modern periodic table are arranged on the basis of increasing atomic masses.  
 3. Isotopes are arranged in adjoining or different groups in the Modern periodic table.  
 4. The elements in the Modern periodic table are arranged on the basis of their increasing atomic number.  
 1. 1 only                      2. 1, 2 and 3                      3. 1, 2 and 4                      4. 4 only
- Sol. (2)  
 Modern periodic table is arranged on basis of increasing atomic number.
116. In Alumino-Thermite process aluminium is used as  
 1. Oxidising agent                      2. Ore                      3. Reducing agent                      4. Catalyst
- Sol. (3)
117. The greater number of water molecule will be in  
 1. 18 gm to  $\text{H}_2\text{O}$                       2. 18 moles of water  
 3. 18 molecules of water                      4. 1.8 gram of water
- Sol. (2)  
 18 moles of water will have maximum number of  $\text{H}_2\text{O}$  molecules.
118. Consider the following equation of chemical reaction of a metal M  
 $4\text{M} + 3\text{O}_2 \rightarrow 2\text{M}_2\text{O}_3$   
 The equation represents:-  
 1. Combination reaction as well as oxidation reaction  
 2. Combination reaction as well as reduction  
 3. Decomposition reaction as well as oxidation  
 4. Oxidation reaction as well as displacement
- Sol. (1)  
 combination as well as oxidation reaction.
119. Identify the correct oxidant and reductant in the following reaction  
 $\text{PbS} + 4\text{H}_2\text{O}_2 \rightarrow \text{PbSO}_4 + 4\text{H}_2\text{O}$
- |    |                        |   |           |
|----|------------------------|---|-----------|
| 1. | PbS                    | - | Oxidant   |
|    | $\text{H}_2\text{O}_2$ | - | Reductant |
| 2. | PbS                    | - | Reductant |
|    | $\text{PbSO}_4$        | - | Oxidant   |
| 3. | PbS                    | - | Reductant |
|    | $\text{H}_2\text{O}_2$ | - | Oxidant   |
| 4. | $\text{H}_2\text{O}_2$ | - | Oxidant   |
|    | $\text{H}_2\text{O}$   | - | Reductant |

- Sol. (3)**  
Phs gains oxygen and reduces  $\text{H}_2\text{O}_2$  loses oxygen and oxidizes.
- 120.** Silver articles become black on prolonged exposure to air. This is due to the formation of  
1.  $\text{Ag}_3\text{N}$  2.  $\text{Ag}_2\text{O}$  3.  $\text{Ag}_2\text{S}$  4.  $\text{Ag}_2\text{S}$  and  $\text{Ag}_3\text{N}$
- Sol. (3)**  
Forms  $\text{Ag}_2\text{S}$  due to  $\text{H}_2\text{S}$ .
- 121.** How many moles of  $\text{NaOH}$  are present in 160g of  $\text{NaOH}$   
1. 4 mole 2. 2 mole 3. 1 mole 4. 3 mole
- Sol. (1)**  
Number of moles =  $\frac{160}{40} = 4$
- 122.** When a vegetative oil is treated with Hydrogen in the presence of Nickel catalyst it forms fat (Vegetable Ghee). This is an example of  
1. Displacement reaction  
2. Decomposition reaction  
3. Addition Reaction  
4. Double displacement reaction
- Sol. (3)**  
Hydrogenation is addition reaction.
- 123.** This electronic configuration 2, 8, 6 represents element  
1. Calcium 2. Sulphur 3. Oxygen 4. Magnesium
- Sol. (2)**
- 124.** The Soap molecule has a  
1. Hydrophobic head and Hydrophobic tail  
2. Hydrophobic head and Hydrophilic tail  
3. Hydrophilic head and Hydrophilic tail  
4. Hydrophilic head and Hydrophobic tail
- Sol. (2)**  
Head is polar and tail is non-polar.
- 125.** pH is defined as  
1.  $-\text{Log} [\text{H}_3\text{O}^+]$  2.  $-\text{Log} [\text{H}_2\text{O}]$   
3.  $+\text{Log} [\text{H}^+][\text{OH}^-]$  4.  $-\text{Log} [\text{H}^+][\text{OH}^-]$
- Sol. (1)**
- 126.** Which gas boils out first during fractional distillation of air.  
1. Argon 2. Nitrogen 3. Oxygen 4. Carbon dioxide
- Sol. (2)**  
Nitrogen Boiling point as nitrogen =  $-195.8^\circ\text{C}$

### **BIOLOGY**

- 127.** Which of the following is a plant hormone  
1. Insulin 2. Thyroxine 3. Estrogen 4. Cytokinin
- Sol. (4)**  
Other hormones-insulin, thyroxine, estrogen are animal hormones.
- 128.** The shape of guard cells changes due to change in the  
1. Protein composition of cells  
2. Temperature of cells  
3. Amount of water in cells  
4. Position of nucleus in the cells
- Sol. (3)**  
Water makes turgid the guard cell when water loss it become flaccid.

- 129.** Which of the following; is a true statement
1. Ovary releases three eggs in every month
  2. The eggs are produced in the uterus
  3. If the egg is not fertilized, it lives for about one day
  4. The fertilization takes place in the ovaries

**Sol.** (3) True if the egg is not fertilized, it lives for about one day.

Other options 1, 2, 4 are false.

1. Ovary releases only one egg in every month.
2. The eggs are produced in the ovaries not in the uterus.
3. The fertilization takes place in fallopian tube, ampulla not in the ovaries.

- 130.** The tissues that help in the movement of body are

1. Muscular tissues
2. Skeletal tissues
3. Connective tissues
4. Conducting tissues.

**Sol.** (1)

The tissues .....

Muscular tissues, because they are directly attached to the bones, while others are not.

- 131.** Match the terms in column (A) with those in column (B)

**Column A**

**Column B**

(1) Trypsin

(a) Pancreas

(2) Amylase

(b) Liver

(3) Bile Juice

(c) Gastric glands

(4) Pepsin

(d) Saliva

(1) (i) a

(ii) d

(iii) b

(iv) c

(2) (i) b

(ii) c

(iii) d

(iv) a

(3) (i) a

(ii) b

(iii) c

(iv) d

(4) (i) b

(ii) c

(iii) a

(iv) d

**Sol.** (1)

1. Trypsin – Pancreas digests proteins
2. Amylase – Saliva digests 70% carbohydrate
3. Bile juice – liver – digests food in duodenum and pancreas (emulsification of fat)
4. Pepsin – Gastric glands. Digests proteins in stomach.

- 132.** Adenosine triphosphate (ATP) is produced during \_\_\_\_\_ in living organisms and also during \_\_\_\_\_ in plants

1. Photosynthesis, Absorption
2. Respiration, Nutrition
3. Photosynthesis, Respiration
4. Respiration, Photosynthesis

**Sol.** (4)

Because in living organisms mitochondria and cytoplasm of cell do respiration to produce ATP and during photosynthesis light phase ATP are generated.

- 133.** Muscles contain special protein called \_\_\_\_\_

1. Contractile Proteins
2. Vacuole Proteins
3. Globular Protein
4. Vesicular Protein

**Sol.** (1)

Because, due to this protein muscles undergo into contraction and relaxation.

- 134.** Which of the following groups have naked embryos.

1. Bryophytes and Pteridophytes
2. Bryophytes and Gymnosperms
3. Angiosperms and Pteridophytes
4. Pteridophytes and Angiosperms

**Sol.** (1)

Because in Gymnosperms seeds are not enclosed by carpels.

- 135.** Which of the following cellular component of blood containing haemoglobin  
 (1) Red blood Cell (2) White blood Cell  
 (3) Plasma (4) Cytoplasm  
**Sol.** **(1) Red blood cell.**  
 Red colour of blood due to the pigment hemoglobin (a conjugated protein) while WBCs, Plasma and cytoplasm are not red in colour.
- 136.** Recessive characters will appear in  
 1.  $F_1$  generations 2.  $F_2$  generations  
 3. both  $F_1$  and  $F_2$  4.  $F_3$  only  
**Sol.** **(2)  $F_2$ -generation**  
 As per mendel's 1<sup>st</sup> law of dominance only dominant characters appear in  $F_1$  not the recessive, they will get chance of expression in next generation i.e.  $F_2$
- 137.** Which of the following statements is correct  
 1. Prokaryotic cells have a well defined nucleus  
 2. Eukaryotic cells have no Mitochondria  
 3. Prokaryotic cells having Mitochondria  
 4. Eukaryotic cells having membrane bound organelles  
**Sol.** **(4)**  
 All the organelles in the eukaryotic cells are membranous while in prokaryotic cells, organelles are naked and instead of mitochondria mesosomes are present.
- 138.** Pineal gland is located  
 (1) On the kidney (2) In the Brain (3) Near Thyroid (4) In Pancreas  
**Sol.** **(2) Pineal gland is located in the brain.**  
 The 3<sup>rd</sup> ventricle of diencephalon has the outgrowth upper side as pineal gland and lower one is pituitary gland.
- 139.** Which of the following is body's largest blood vessel.  
 1. Aorta 2. Pulmonary Vein 3. Capillaries 4. Heart  
**Sol.** **(1) Aorta**  
 It supplies pure blood to all over parts of the body.
- 140.** Which of the following is not a raw material for photosynthesis  
 1. Carbon dioxide 2. Water 3. Oxygen 4. Chlorophyll  
**Sol.** **(3) Oxygen**  
 1, 2 and 4 are necessary to conduct photosynthesis.

### MATHEMATICS

- 141.** The pair of equations  
 $X=0$  and  $x = -3/4$  has  
 1. One Solution 2. Two solutions  
 3. Infinitely many solutions 4. No solution  
**Sol.** **(4)**  
 Lines of equations are parallel to each other & y-axis therefore no solution.
- 142.** If a point (a,b) is equidistant from points (x+y, y-x) and (x-y, x+y) then which of the following is true ?  
 1.  $ay = bx$  2.  $ax = by$  3.  $a+b = x+y$  4.  $a^2y = b^2x$   
**Sol.** **(1)**  
 Let A (x - y, x + y), B (a, b) & C (x + y, y - x)

Given AB = BC

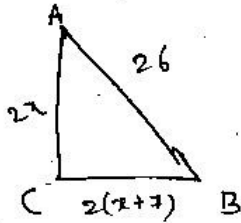
By using distance formula

$$= \sqrt{(x+y-a)^2 + (x-y-b)^2}$$

Solving this equation we get,  $ay = bx$

143. For going to a city B from city A, there is a route via city C such that  $AC \perp CB$ .  $AC = 2x$  km and  $CB = 2(x+7)$  km. It is proposed to construct a 26 km highway which directly connects the two cities A and B. Find how much distance will be saved in reaching city B from city A after the construction of the highway.
1. 5 km                      2. 6 km                      3. 8 km                      4. 12 km

Sol. (3)



Using Pythagoras theorem  $AC^2 + BC^2 = AB^2$

$$\therefore 4x^2 + 4x^2 + 196 + 56x = 676$$

$$x^2 + 7x - 60 = 0$$

By quadratic formula  $x = 5$

Distance saved = Actual distance – shortcut

$$= 2x + 2x + 14 - 26$$

$$= 4x + 14 - 26$$

$$= 8 \text{ km } (x = 5)$$

144. In quadrilateral ABCD,  $\angle B = 90^\circ$ ,  $\angle C - \angle D = 60^\circ$  and  $\angle A - \angle C - \angle D = 10^\circ$ . Find the measure of the smallest angle of this quadrilateral

1.  $35^\circ$                       2.  $25^\circ$                       3.  $50^\circ$                       4.  $55^\circ$

Sol. (1)

Given  $\angle B = 90^\circ$ ,  $\angle C - \angle D = 60^\circ$ ,  $\angle A - \angle C - \angle D = 10^\circ$

We know

$$(\angle A + \angle B + \angle C + \angle D = 360)$$

$$4 \times \angle D = 360 - 220$$

→

By putting values.

$$\angle D = 35$$

145. Find a natural number whose square diminished by 84 is equal to thrice of 8 more than the given number
1. -3                      2. 12                      3. 6                      4. 9

Sol. (3)

146. Find the common difference of an AP whose first term is 1 and the sum of the first four terms is one third of the sum of the next four terms.

1. 2                      2. 4                      3. 1.5                      4. -2

Sol. (1)

$$a = 1, S_4 = \frac{1}{3}(S_8 - S_4)$$

$$S_4 = 4 + 6d, S_8 = 8 + 28d$$

$$4 + 6d = \frac{1}{3}(4 + 22d)$$

$$\therefore d = 2$$

147. The mean weight of students of a particular class is 52 kg. The mean weight of boys of this class is 56 kg and that of girls is 50 kg. Find the ratio of number of boys to the number of girls in the class.

- 1) 1:2                      2) 2:1                      3) 1:1                      4) 2:3

Sol. (1)

Let number of boys equal to x and sum of weights is A.



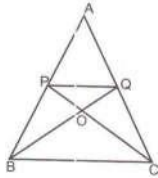
Let number of girls equal to  $y$  and sum of weights is  $B$ .

$$\frac{A}{x} = 56, \quad \frac{B}{y} = 50$$

$$\frac{A+B}{x+y} = 52 \quad \rightarrow 56x + 50y = 52x + 52y$$

$$\frac{x}{y} = \frac{1}{2}$$

148. In figure  $PQ \parallel BC$ .  $AP:PB = 4:3$ . Find the ratio of areas of  $\triangle BOC$  and  $\triangle POQ$ .



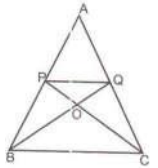
1) 16:9

2) 4:3

3) 49:16

4) 16:49

Sol. (3)



$\triangle ABC \sim \triangle APQ$  (by  $A$  criteria)

$$\therefore \frac{PQ}{BC} = \frac{AP}{AB}$$

$$\frac{PQ}{BC} = \frac{4}{7}$$

In  $\triangle PQO$  &  $\triangle BOC$

$$\angle POQ = \angle BOC \quad \text{..... (Vertically opp. Angles)}$$

$$\angle PQO = \angle OBC \quad \text{..... (alternate angles)}$$

$$\angle QPO = \angle OCB \quad \text{..... (alternate angles)}$$

$$\therefore \triangle POQ \sim \triangle COB$$

$$\frac{PO}{CO} = \frac{OQ}{OB} = \frac{PQ}{CB} = \frac{4}{1}$$

$$\frac{A(\triangle COB)}{A(\triangle POQ)} = \left( \frac{BC}{PQ} \right)^2 = \frac{49}{16}$$

149. In  $\triangle ABC$ ,  $\angle C = 90^\circ$  and  $\tan A = 1$  Find the value of  $2 \sin A \cos A$

1)  $\sqrt{2}$

2)  $\frac{1}{2}$

3) 1

4)  $1/\sqrt{2}$

Sol. (3)

$$\tan A = 1$$

$$A = 45^\circ$$

$$(\because \tan 45^\circ = 1)$$

$$\text{Now, } 2 \sin A \cos A = 2 \times \sin 45^\circ \times \cos 45^\circ$$

$$= 2 \times \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} = 2 \times \frac{1}{2} = 1$$

- i) Adjacent angles are complementary.
- ii) Adjacent angles are supplementary
- iii) Vertically opposite angles are equal.
- iv) Vertically opposite angles are supplementary.

- Sol. (2)**  
(ii) & (iii) are correct.

1. an integer
2. a rational number
3. a natural number
4. an irrational number

- Sol.** (2)  
Rational number

- The sum of all odd natural numbers between 0 to 10 is \_\_\_\_\_
1. 1600                      2. 420                      3. 400                      4. 210

- $a = 1, d = 2, T_n = 39$

$$a + (n - 1)d = 39$$

$$1 + (n - 1)2 = 39$$

$$(n-1) \times 2 = 38$$

$n = 20$

$$\therefore S_{10} = 10[2 + 19 \times 2] = 400$$

1. mode = 3 median – 2 mean
2. mode = 2 median – 3 mean
3. median = 3 mode – 2 mean
4. mean = 3 median – 2 mode

- Sol. (1)**

1. 14:9                      2. 13:11                      3. 13:9                      4. 14:11

- Sol. (4)**  
Let side of square =  $x$   
According to questions

$$2\pi r = 4x$$

$$\therefore x = \frac{\pi r}{2}$$

$$\text{Now, } \frac{\text{Area of circle}}{\text{Area of square}} = \frac{\pi r^2}{x^2}$$

After putting the value of x we get,

$$\frac{\text{Area of circle}}{\text{Area of square}} = \left( \frac{14}{11} \right)$$

- 1) 64                      2) 128                      3) 16                      4) 4

- Sol. (1)**

$$\sqrt{x} = 2 \times \sqrt[3]{x}$$

$$(\sqrt{x})^6 = 2^6 \times (\sqrt[3]{x})^6$$

$$x^3 = 64 \times x^2$$

$$x = 64$$

156. Fill in the blank 49, 343, 64, \_\_\_\_\_, 81, 729

1) 1024

2) 512

3) 778

4) 182

Sol. (2)

$$49 = 7^2, 343 = 7^3, 64 = 8^2, \dots, 81 = 9^2, 729 = 9^3$$

According to pattern answer will be  $8^3 = 512$ .

157. In an examination a student scores 4 marks for each correct answer and loses 1 mark for each wrong answer. If he attempts total 60 questions and secures 130 marks. Find the number of questions he attempted correct.

1. 35

2. 38

3. 40

4. 42

Sol. (2)

Correct questions =  $x$

Marks for correct ans =  $4x$

$$4x - y = 130$$

$$x + y = 60$$

$$5x = 190$$

$$x = 38$$

158. A number consists of two digits. The sum of both digits is 11. If 27 added to the number then digit inter change their places. Find the number

1. 47

2. 65

3. 83

4. 92

Sol. (3)

159. If  $\sqrt{2048} = \sqrt{2^x}$ ,  $\sqrt{2187} = \sqrt{3^y}$  and  $\sqrt{3125} = \sqrt{5^z}$  then the value of  $x + y - z =$

1) 1

2) 9

3) 13

4) 23

Sol. (3)

160. Find the value of  $y$  in terms of  $x$   $\frac{3x+4y-3}{7} = \frac{-3x+4y-7}{9}$ .

1)  $\frac{-24x-11}{4}$

2)  $\frac{-11x-24}{4}$

3)  $\frac{-4x-11}{24}$

4)  $\frac{-24x-4}{11}$

161. Who was the first Viceroy of India?

(1) Robert Clive

(2) Lord William Bentick

(3) Warren Hastings

(4) Charles John Canning

Sol. (4)

162. By which name was Punjab known in Ramayan and Mahabharat?

(1) Panchnad

(2) Sapat Sindhu

(3) Panta Potamia

(4) Lahore Suba

Sol. (2)

163. In which year was Guru Teg Bahadur Ji born?

(1) 1605

(2) 1628

(3) 1656

(4) 1621

Sol. (4)

164. To whom did Guru Har Rai Ji sent Delhi when he was called by Mughal Emperor Aurangzeb?

(1) Prithi Chand

(2) Ram Rai

(3) Dhirmal

(4) Harkrishanji

Sol. (2)

- 
- 165.** Who is credited for demanding Swaraj from the Congress platform for the first time  
(1) Sutinder Nath Banerjee (2) Gopal Krishan Gokhale  
(3) Dadabhai Naroji (4) V.D. Savarkar  
**Sol. (3)**
- 166.** Which Guru Sahib started the Manji System?  
(1) Guru Ama'das ji (2) Guru Anged Dev ji  
(3) Guru Ram Das ji (4) Guru Arjur Dev ji  
**Sol. (1)**
- 167.** Which of the following cities was the capital during Banda Singh Bahadur's Rule?  
(1) Khanna (2) Sirhind (3) Lohgarh (4) Kethal  
**Sol. (3)**
- 168.** When was the 'Gadar Party' formed?  
(1) 1914 (2) 1913 (3) 1920 (4) 1929  
**Sol. (2)**
- 169.** During the middle of 19th Century Italy was divided into how many states and which one was ruled by the Italian Princely house-  
(1) 7, Sardinia-Piedmont (2) 6, Sardinia-Piedmont  
(3) 5, Florence (4) 6, Habsburg  
**Sol. (1)**
- 170.** In France the female allegory was named as  
(1) Germania (2) Maria (3) Alice (4) Marianne  
**Sol. (4)**
- 171.** A liberal colonial officer who formulated new rules to restore the freedom of the Press in India was-  
(1) Warren Hastings (2) Thomas Macaulay  
(3) William Bentick (4) Robert Clive  
**Sol. (2)**
- 172.** Which one of the following countries is not a member of South Asian Association for Regional Co-operation (SAARC)  
(1) Bhutan (2) India (3) Nepal (4) China  
**Sol. (4)**
- 173.** By what name the coastal plains from Daman to Goa are known as?  
(1) Malabar Coast (2) Konkan Coastal plains  
(3) Eastern Coastal plains (4) Northern coastal plains  
**Sol. (2)**
- 174.** Which one of the following districts is the smallest in area?  
(1) Ludhiana (2) Bathinda (3) Gurdaspur (4) Pathankot  
**Sol. (4)**
- 175.** Which one of the following regions normally experience the convectional type of rainfall?  
(1) Equatorial region (2) South Polar-Region  
(3) North Polar Region (4) Glaciated region  
**Sol. (1)**
- 176.** Ravi, Jhelum and Chenab are tributaries of which river  
(1) Godavari (2) Ganga (3) Yamuna (4) Sindhu  
**Sol. (4)**
- 177.** Which one of the following agents causes the formation of V-shaped valley ?  
(1) Snow (2) Wind (3) River (4) Sea waves  
**Sol. (3)**
-

- 178.** Which type of soil is extensively found in Punjab.  
 (1) Black Soil (2) Alluvial Soil (3) Red soil (4) Laterite soil  
**Sol.** (2)
- 179.** Which is the first express way of India?  
 (1) Delhi-Calcutta (2) Mumbai-Pune (3) Bengluru-Chennai (4) Delhi- Mumbai  
**Sol.** (2)
- 180.** The food needs of any country are determined by?  
 (1) The size of population and its standard of living  
 (2) The geographical size of area  
 (3) The urbanized population  
 (4) The rural population  
**Sol.** (1)
- 181.** Tropic of Cancer passes through \_\_\_\_\_ State.  
 (1) Bihar (2) Utar Pradesh (3) Mizoram (4) Nagaland  
**Sol.** (3)
- 182.** The area with more concentration of Jute mills in India are of  
 (1) Maharashtra (2) Gujrat (3) West Bengal (4) Uttar Pradesh  
**Sol.** (3)
- 183.** Which of the following countries does not have veto power  
 1) France 2) India 3) China 4) Russia  
**Sol.** (2)
- 184.** The principle of 'Judicial Review ' has been taken from which country?  
 1) United State of Ameiica 2) Germany  
 3) France 4) England  
**Sol.** (1)
- 185.** How many members are taken for the Lok Sabha and Rajya Sabha from Punjab?  
 (1) Lok Sabha-11 (2) Lol Sabha-13  
     Rajyt Sabha-9      Rajya Sabha-7  
 3) Lok Sabha-9 4) Lok Sabha-12  
     Rajya Sabha-7      Rajya Sabha-7  
**Sol.** (2)
- 186.** Who is included in the 'electoral college' or electorate for the election of our President  
 1) All the members of Lok Sabha  
 2) All the members of Rajya Sabha  
 3) Elected members of Lok Sabha, Rajya Sabha and elected members from State Legis ative Assemblies and ellected members from Unior Territories.  
 4) All members of Lok Sabha, Rajya Sabha and State Legislative Assemblies  
**Sol.** (3)
- 187.** Peaceful Co-existence 'is the part of which agreement?  
 1) Panchsheel 2) Simla Agreement  
 3) Tashkand Agreement 4) Nehru Layakat Agreement  
**Sol.** (1)
- 188.** India opposes strongly at International lever for which issue?  
 1) United Nations 2) Foreign Companies  
 3) Common Weath Nations 4) Terrorism in all forms  
**Sol.** (4)
- 189.** Which rights are not given to foreigners?  
 1) Political Rights 2) Economic Rights  
 3) Social Rights 4) Economic Rights

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**Sol. (1)**

**190.** The Chief Minister Generally belongs to -

- |                               |                              |
|-------------------------------|------------------------------|
| 1) Rajya Sabha                | 2) Lok Sabha                 |
| 3) State Legislative Assembly | 4) State Legislative Council |

**Sol. (3)**

**191.** Right to 'Free and Compulsory Education' was implemented in all over India on \_\_\_\_\_?

- |               |               |                 |                  |
|---------------|---------------|-----------------|------------------|
| 1) March 2009 | 2) April 2010 | 3) January 2002 | 4) February 2011 |
|---------------|---------------|-----------------|------------------|

**Sol. (2)**

**192.** Which among the following is not a key feature of Parliamentary form of Govt. \_\_\_\_\_?

- 1) Close relationship between Legislature and Executive
- 2) The Power of Judicial Review by Judiciary/ Courts
- 3) Real and Nominal Executive
- 4) Responsibility of Executive towards Legislature

**Sol. (2)**

**193.** The extra ordinary increase in agriculture especially in the production of wheat and rice is called.

- |                     |                     |
|---------------------|---------------------|
| 1. Wheat Revolution | 2. Paddy Revolution |
| 3. Green Revolution | 4. White Revolution |

**Sol. (3)**

**194.** The reward given to the entrepreneur for his factor services is called:

- |             |         |          |           |
|-------------|---------|----------|-----------|
| 1. Interest | 2. Rent | 3. Wages | 4. Profit |
|-------------|---------|----------|-----------|

**Sol. (4)**

**195.** When more than required labourers are employed in any occupation, then these extra labourers is called which type of unemployed?

- |                          |                           |
|--------------------------|---------------------------|
| 1. Seasonal unemployed   | 2. Distiguated Unemployed |
| 3. Industrial Unemployed | 4. Under Unemployed       |

**Sol. (4)**

**196.** The Government policy related to its revenue and expenditure is called:

- |                    |                  |                 |                      |
|--------------------|------------------|-----------------|----------------------|
| 1. Monetary Policy | 2. Fiscal Policy | 3. Price Policy | 4. Industrial Policy |
|--------------------|------------------|-----------------|----------------------|

**Sol. (2)**

**197.** When was the New Industrial Policy launched in India?

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. 1948 | 2. 1956 | 3. 1991 | 4. 2001 |
|---------|---------|---------|---------|

**Sol. (3)**

**198.** In India ..... percent of p eople are living below poverty line.

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. 21.9 | 2. 22.9 | 3. 23.9 | 4. 24.9 |
|---------|---------|---------|---------|

**Sol. (1)**

**199.** Under MNREGA Scheme of the Government how many days of employment is provided to the labourers in India?

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. 100 | 2. 120 | 3. 150 | 4. 200 |
|--------|--------|--------|--------|

**Sol. (1)**

**200.** Barking Services are included in which of the following sectors of the economy?

- |                   |                      |
|-------------------|----------------------|
| 1. Primary Sector | 2. Secondary Sector  |
| 3. Service Sector | 4. Industrial Sector |

**Sol. (3)**